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## NOTICES

## FURTHER REPORT ON THE HORYUJI

*The Present State of the Murals and of their Copies, and New Discoveries in the Hôryûji Precinct*

BY DIETRICH SECKEL

In my previous report<sup>1</sup> I promised to give more detailed information on what has happened to the wall-paintings in the Golden Hall of the Hôryûji Temple near Nara, and on discoveries concerning some important problems connected with the Hôryûji precinct in general. Now that recent material<sup>2</sup> from Japan has reached me I shall extract from it those facts and problems which I presume will be of interest to a not too limited number of readers.

## I. SUPPLEMENTARY INFORMATION ON THE MURALS AND THEIR COPIES

1. *Damage suffered by the murals.* A detailed survey of the fate of each of the wall-paintings is given in the attached table. These unique works are important enough to deserve a meticulous report so that anybody who has a complete set of reproductions at hand may gain a clear idea of the present state of the unfortunate murals. The main causes of damage may be listed as follows.

(1) The flames fired the wall-plaster to the hardness of stoneware and, due to its content of iron, the wall turned a pale-red terracotta colour resembling that of the well-known *haniwa* figures unearthed from early Japanese grave mounds. At the same time, the fire changed the pigments of the paintings, often radically, or even made them disappear by volatilization; and some pigments fused into something like a ceramic glaze. – (2) The water which was pumped into the Kondô washed away portions of pigment, precariously loosened by the heat, not only through sheer

1. Cf. *Asiatische Studien*, Vol. III, No. 1/2, 1949, p. 48. – Alexander C. Soper has published a brief report on „The Fire in the Hôryûji Kondô” in *Oriental Art*, ed. W. Cohn, Vol. II, No. 2, Autumn 1949, pp. 67–68.

2. *Bukkyô Geijutsu (Ars Buddhica)*, a new periodical devoted to scientific studies on Buddhist Art, edited by a group of reputed specialists and published by the Mainichi Press, Osaka and Tôkyô, Nos. 3 and 4, 1949; 144 and 162 pp.; in Japanese, with few and insufficient English summaries. Here the first photographs, partly in colour, of the destroyed murals are published, besides many pictures of the ruined Kondô. – The most recent publication in book form is: *Zusetsu Hôryûji (H. illustrated)*, publ. by the Asahi Press, Osaka and Tôkyô, 1949, containing 5 essays by well-known scholars and intended for a broader public. (139 pp., 48 pls.; in Japanese only.)

force of pressure but also because the walls were thoroughly soaked. This caused great portions of the tempera surface to peel off and the body of the walls to disintegrate so that large areas of the plaster background fell off, exposing the naked earthen wall and its reinforcing framework of wood and bamboo strips. This happened especially to the bottom parts of the murals because the hall was flooded up to the level of the central altar platform. – (3) Finally, dreadful wounds were inflicted on the most famous of the paintings, the Amida group (No. 6), when firemen pierced the wall from outside in order to introduce their hoses to put out the fire. In innocent ignorance they demolished the face of Amida, besides other less important spots. This damage is the more deplorable as it could have been easily avoided either by choosing less vital points of that wall or by opening or breaking the adjoining door.

The general appearance of the paintings is likened by a Japanese writer to photographic negatives, and judging from reproductions it seems that indeed the basic outlines stand out in ghostly white from the fired and blackened background so that another observer is right in speaking of *shiroi kage-e*, white shadow-pictures. Some of the panels were in a very bad condition even before the fire, it is true; but others had retained a good deal of their original beauty. This is now entirely lost in all the pictures although the degree of disintegration and disfigurement is not equal throughout, and the panels in the NE corner seem to have survived the ordeal in a comparatively good condition.

An interesting account of the chemical changes the individual pigments have undergone was published in *Bukkyô Geijutsu* (No. 4, pp. 101–104) but as it is very detailed we only give the result as it is summed up in the English extract: “By the fire the pigments lost their original colour except white clay and iron oxide red ... Yellow ochre changed to red, and litharge fused. Malachite and azurite changed to black copper oxide. Red lead changed to yellow litharge and fused to a yellow mass, thus indicating the temperature ... to be higher than its melting point, 880° C. A part of the wall No. 10 was heated by the reducing flame and the malachite in it changed to cuprous oxide.” The light yellow colour which has now appeared on Amida’s garment (in No. 6) was produced by the red ochre content, while the cinnabar ingredients of the original colour are gone. (See colour plate in *Bukkyô Geijutsu*, No. 3.) Cinnabar, forming the basic component of a widely applied red pigment, has evaporated entirely due to its content of mercury which volatilizes at between 800 and 1000° C.

Thus, interesting results as to the components of the pigments as well as to some other problems which we shall mention later on could be obtained, but there is no scholar so cynical as to rejoice over this increase in our knowledge made possible only through the tragic loss of these irreplaceable works of art. That the Japanese are conscious of their culpability is shown by the following words from an article

in the little book *Zusetsu Hôryûji* (p. 138): "The Hôryûji murals are not our, the Japanese, exclusive property: they are a precious treasure owned by the world at large. This treasure we have recklessly allowed to be destroyed. We have to apologize to the whole world for this heavy guilt of ours. The 26th of January of the 24th year of Shôwa (1949) will be deeply impressed in our hearts as a day of penitence."

2. *The fate of the facsimile copies.* The degree to which the copies have been completed and the percentage of finished or semi-finished copy sheets destroyed is shown on our chart. It is a surprise to learn that altogether not more than 50% of the originals were reproduced and that the copied portions are so unevenly distributed over eight of the twelve murals. This may have technical reasons. There were four teams of artists at work and their members naturally had to distribute themselves in the chapel for simple reasons of space – while the poor record of only 50% of finished or partly finished copies since work was started in 1939/40 is largely due to the unfavourable war-time conditions. Still, we cannot help wondering why a greater portion of the copies could not be completed once so elaborate an organization in personnel and technique had been set up. The tempo of the general restoration work at Hôryûji may seem very slow, too; but apart from wartime obstacles we must realize that during the dismantling process such an enormous number of new observations and discoveries was made virtually every day, requiring careful and often protracted investigation, that reinforcements in manual labour or mechanical equipment for speeding up the work would have been of little avail.

Since so few copies were finished, or at least partly finished, the loss of all of the sheets left in the Kondô aggravates the situation considerably since these comprised about one third of all existing copies. Now, after the destruction of the originals, every fragment of a facsimile copy has an inestimable value and it is indeed a pity that only two of the paintings, No. 5 and No. 10, exist in complete copies. As our chart shows in the two last columns, no less than 62% of the entire surface of the paintings has not been copied and therefore is now lost beyond any attempt at reconstruction. The copyists will try – or are trying already – to paint the unfinished portions from memory, on the basis of full-sized collotypes and a few existing colour photographs. Yet this is little more than an emergency measure without much value although even the minutest details must have impressed themselves upon the memories of these artists with unusual clearness and permanence.

It seems incredible, but colour photographs of the whole set of murals do not exist. Some ultra-red photos are said to have been taken but evidently there has been not the slightest consistency in all these undertakings. Here again one cannot help criticizing the men in charge for their remarkable lack of efficiency, vision, and feeling of responsibility. For even if the murals had not been burnt their condition was such that it required the most careful consideration and planning to effect their preservation and reproduction.

## II. NEW FINDINGS IN THE HORYUJI PRECINCT

1. *The Golden Hall (Kondô)*

(a) *The Building.* During the thorough dismantling and repairing process which Japanese wooden structures have to undergo from time to time usually a lot of discoveries are made, often of a surprising character, and the Japanese experts with their national talent for microscopic scrutiny do not leave any piece of wood, tile, or plaster unexamined be it ever so insignificant. So far, however, no sensational results seem to have been obtained concerning the architectural construction or the much-debated history of the Kondô, and the mass of minor facts which have come to light is not important enough to be related here in detail. Some of them make it possible to look behind the extensive changes effected by restorations of the Keichô (1596–1614) and Genroku (1688–1703) eras and to ascertain the original status. In spite of the heavy damage suffered by the undismantled ground storey it seems that the general appearance of the Kondô can be restored without noticeable traces of the catastrophe. This, however, could be accomplished only by replacing the ancient timbers by new ones, especially the sturdy round columns with their famous entasis – or is it planned to scrape off their charred surface and thus reduce their diameter by more than two inches?

(b) *Paintings.* On some of the structural wood, especially on the reverse of the ceiling boards, ink sketches and scribbles were found showing human faces and fingers, animals, plants, ornaments, and written characters, all of which beyond doubt are of the same date as the original building. They may have been painted by the carpenters and other craftsmen who erected and decorated the Kondô, and are vivid relics left behind as a sort of personal message by these long-deceased artisans. Other scribbles of characters have come to light on some of the exterior walls, where the whitewash has been washed away by the firemen. They date from the Tokugawa period but are of minor interest. In the Pagoda, discoveries of exactly the same kind were made.

Another more important find are wall-paintings of meditating Arhats which were discovered on the small panels right above the famous murals and the intermediate doors; they were covered with whitewash, probably during the Keichô or Genroku era. Altogether they number eighteen – one of the standard numbers for Arhat groups –, three of which are comparatively well preserved even after the fire. Unfortunately this set of murals was uncovered so shortly before the catastrophe that no careful investigation could be carried out nor photographs be taken.

The large murals have always been and still are the objects of constant observation and research on the part of Japanese scholars. Recently not only their composition, colour scheme, technique, and their relation to continental wall-paintings have

been discussed anew in the latest issues of periodicals but also their iconographic system. Sawa Ryûken, an authority on Buddhist iconography, has shown convincingly that the two Bodhisattva figures No. 2 and 5 both represent Miroku (Maitreya) and not Yakushi's attendants Nikkô and Gakkô, for whose presence there does not exist any iconographic justification. Another matter of dispute is the identification of three of the four large paintings showing "Paradises" (Jôdo) of Buddhas, and although no general agreement has been reached the most convincing theory is Sawa's who identifies No. 9 as Miroku- and not as Shaka-Jôdo because the northern direction is traditionally ascribed to Miroku; No. 10 as Yakushi- and not as Miroku-

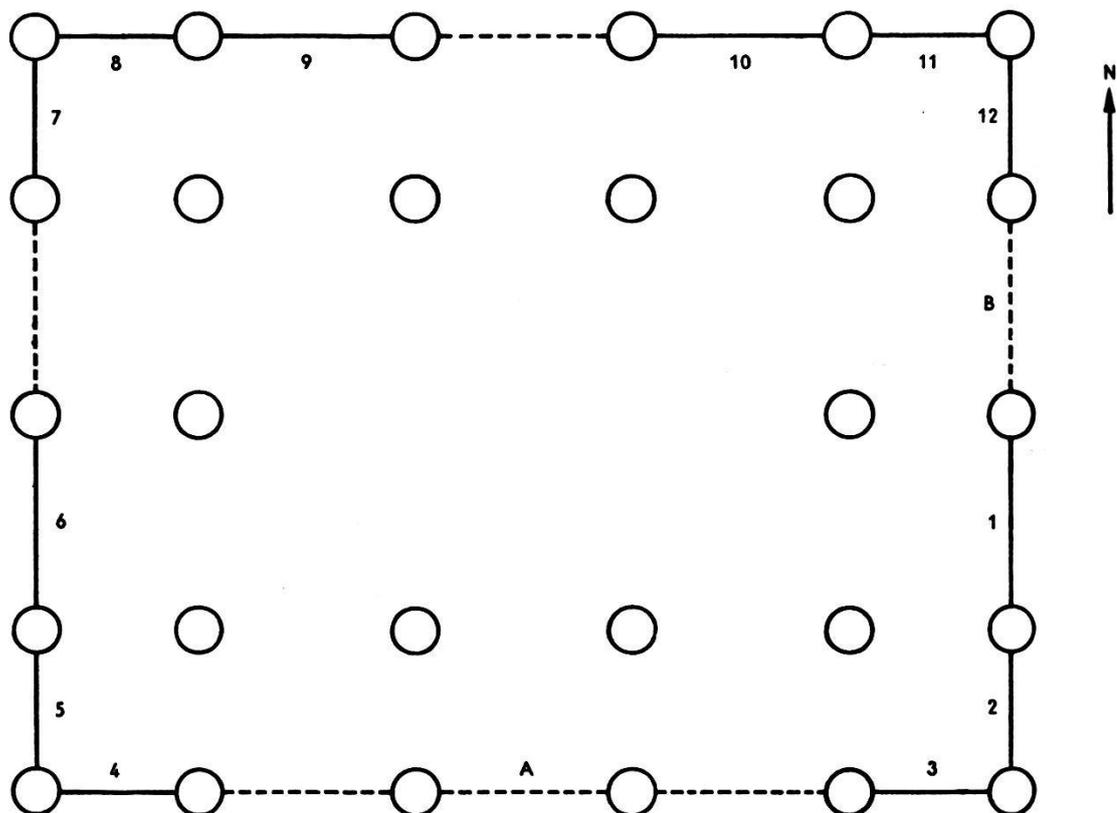


Fig. 1. Plan of the Golden Hall, Hôryûji

A Main doors at front B Entrance as used today

1-12 The Twelve Murals:

- |   |  |
|---|--|
| 1 Shaka-Jôdo (Paradise of Shâkyamuni)   | 7 Shô-Kannon Bosatsu (Arya-Avalokiteshvara B.) |
| 2 Miroku Bosatsu (Maitreya Bodhisattva) | 8 Monju Bosatsu (Manjushri B.)                 |
| 3 Kannon Bosatsu (Avalokiteshvara B.)   | 9 Miroku-Jôdo (Paradise of Maitreya)           |
| 4 Seishi Bosatsu (Mahâsthâmaprâpta B.)  | 10 Yakushi-Jôdo (Paradise of Bhaishajyaguru)   |
| 5 Miroku Bosatsu                        | 11 Fugen Bosatsu (Samantabhadra B.)            |
| 6 Amida-Jôdo (Paradise of Amitâbha)     | 12 Jûichimen-Kannon Bosatsu (Ekadashamukha B.) |

Jôdo because it occupies an eastern position in relation to Miroku, the East being the generally accepted region of Yakushi's Paradise; and No. 1 as Shaka- and not as Yakushi-Jôdo because it is placed to the South of the Yakushi-Jôdo; however, due to the position of the few large wall-panels available, the Shaka-Jôdo is painted on the eastern and not on the southern wall. In Far Eastern wall-painting we often find that a certain iconographic system has to be fitted somehow into the architectural system which follows its own rules. This is illustrated by the Bodhisattva murals, too, some of which, forming pairs of "attendants" of Buddhas, have a queer position in relation to the Buddha figures to which we would suppose them to belong.

Some technical discoveries concerning the change of pigments in the fire have already been mentioned. In addition the destruction of the painted surface offers us a new insight into the painting technique; final results of careful investigation, however, are still to be expected. One controversial point has been the method by which the outlines of the pictures were drawn upon the whitewashed plaster ground, and the discussion is now revived by certain new observations. Some scholars think that the basic outlines (*shita-e* or *shita-gaki*) were scratched into the plaster surface with a sharply pointed instrument (*hari-gaki*: needle drawing), and they support this hypothesis by the incised lines which appear on the face of Fugen Bosatsu (No. 11) now that the pigments have peeled off. Over the scratched lines fresh whitewash was applied and the final outlines repainted with ink and colours. A few other scratched outlines were found on Fugen's lotus stalk and robe. On the Yakushi-Jôdo such lines were discovered, too, and it may be presumed, those scholars say, that all the pictures were drawn upon the walls in this manner. But other specialists contest this view; they say it would be rash to generalize and to conclude from the existence of scratched outlines in a few places that this method was employed all over. By its universal use the plaster ground would have been dangerously injured. Therefore another method resembling the one in use among present-day artists may have been employed, the so-called *nenji-no-hô* which may be translated by "tracing-paper method". In this technique the outlines of the composition or its sections and details are first drawn on a sheet of paper in the full size of the mural to be painted, then its reverse side is covered with charcoal dust, which, after the paper has been attached to the wall, is transferred to the plaster surface by tracing the outlines on the paper with a slight pressure. Thus the outlines can be applied to the wall without hurting it. The carbon outlines, being faint and easily wiped off, are then painted over with ink or light colours. In some places of the Hôryûji murals such pale red and black lines had been discovered under the flaked-off pigments even before the recent fire; that they are really preparatory outlines and not subsequent corrections is proved by their forming complete figures or clearly circumscribed portions of them. Unfortunately, these lines have disappeared in the fire but possibly some may be preserved and rediscovered.

It is to be recalled that Sir Aurel Stein had found in the Thousand Buddha Cave at Tun-huang some paper stencils for pouncing pictures on walls. On these sheets all outlines are pricked with needles and probably the charcoal dust was applied through these tiny holes. (*Serindia* Vol. III pp. 892–893 and 969; IV pl. 94.) By the same pricking method, on the other hand, a wall-painting could be easily traced on paper, and thus again transferred to some other wall.

Not so long ago new evidence supporting the *nenji-no-hô* theory was found, and this really surprising and important discovery leads us from the Kondô to the Pagoda.

## 2. *The Five-storied Pagoda*

(a) Some years ago a set of murals was discovered here when the whitewash of later times had been removed. Between the pillars of the ground floor eight Bodhisattva figures are painted, two of them having been restored at some later date, but they are all badly damaged and can in no way compensate for the lost Kondô murals. On the small panels above, a number of Arhat pictures in mountain scenes were uncovered, corresponding to those in the Kondô. Now that the Kondô paintings are destroyed these Pagoda murals are the only existing originals of Haku-hô period Bodhisattva figures which have survived, though in a reduced condition, their outlines being faint and indistinct and their colour substance having disappeared except in some places in the uppermost parts of the pictures. But they show at least some portions where, as a Japanese writer puts it, "blood is still circulating".

The most surprising fact is that these Pagoda murals seem to be exact copies of the Bodhisattva paintings in the Kondô, not only as to subject and arrangement – this last point is clearly illustrated by the western panel of the northern wall showing Monju (Manjushri) in a place exactly corresponding to the Kondô panel No. 8 – but even in their details and size! However, since the Pagoda panels are somewhat smaller in height than those of the Kondô (by c. 1.3 *shaku*) and the figures themselves are not reduced in scale, the space between baldachin and head as well as that below the dais had to be diminished in all the paintings, and the haloes' lost one of their circular outlines.

This discovery not only furnishes a strong argument in favour of the *nenji-no-hô* theory but it reveals the interesting fact that evidently Japanese temple murals in those times were transferred mechanically by means of stencils or the like – just as was done in Central Asia wherever a great number of devotional pictures was required. But since the Chinese and Central Asian habit of covering the walls of sanctuaries to the very last corner with pictures without much consideration for their æsthetic arrangement was never popular in Japan it is not very likely that designs like those of the Hôryûrji murals were repeated over and over again in other temples. It therefore seems possible that the stencil process may have been used to facilitate

the direct transfer to Japan of Chinese original wall-paintings in full size and with every detail and not only in small and inexact sketches. It was never doubted that the Hôryûji murals were reproduced from Chinese models, their value being greatly enhanced by the very role they play as representatives of and substitutes for the virtually lost art of classical Chinese wall-painting; but perhaps this is true in a much more literal and technical sense than we have hitherto imagined<sup>3</sup>.

(b) Another important investigation concerning the Pagoda was carried out very recently: the excavation of the sacred objects hidden in a cavity in the centre of the foundation stone which supports the huge central pillar<sup>4</sup>. The sacred relics, according to the strict interpretation, form the indispensable nucleus of a pagoda for without their presence it has no real value and efficacy as a holy monument and an instrument of salvation. The contents of the underground repository, a reliquary containing *shari* (crystal-like beads supposed to be the holy relics left after the body of a Buddha is cremated) and a sacred mirror, had been unearthed as early as 1926 in strict secrecy, but this time they were to be inspected by a group of experts and government officials who have insisted on a scientific investigation against the stiff opposition of Abbot Saeki who regards such an examination of the relics as sheer profanation and sacrilege. The scholars were particularly anxious to see the relics because they hoped to ascertain through them the erection date of the Hôryûji. Some skeptics anticipate that the style of the sacred objects will definitely prove that their date, and therefore that of the Pagoda and the Hôryûji in general, is a good deal (at least a century) later than other specialists, backed by the temple authorities, maintain.

The inspection took place in early October, 1949, but very few details have come to my knowledge so far. A technical expert formerly in charge of the preservation work of the Hôryûji buildings, who participated in the secret excavation of 1926, has now described what was then found in the cavity nine feet underground: a cop-

3. A short official report on the newly discovered Pagoda murals is published in *Bukkyô Geijutsu* No. 1, 1948, pp. 147-149, with two reproductions. The authors believe that the complete conformity of the Pagoda and the Kondô paintings is not due to the use of a common model but rather that the Pagoda murals were directly copied from those of the Kondô. The Pagoda, they say, shows certain differences from the Kondô in its wall-construction and in the (degenerated) ornamentation of its ceiling so that there are other reasons to consider the Pagoda to be of a "secondary" character. (This statement, incidentally, may even have some bearing on the history of the two main structures of the temple and the sequence of their erection.) – Another article on the Pagoda murals, by Hisano Ken, appeared in *Bijutsu Kenkyû* Vol. XIV, No. 6 but this one is not at my disposal, at this writing.

4. The foundation stone of the presumed Proto-Hôryûji Pagoda – see *Asiatische Studien*, 1/2, 1949, p. 52 – has no cavity for relics but only an octagonal hole for the insertion of the central post.

per urn placed in a stoneware bowl and a mirror. The urn contained an elliptical silver vase, ornamented with relief work, resting in a bed of loose jewels. In the silver vase was hidden a small vessel of pure gold, also with relief ornamentation, in which, finally, a tiny emerald bottle filled with clear water was found. The *shari* expected to be found in this bottle were believed to have dissolved in the liquid. The mirror mentioned above, which is said to be decorated with "grapes and sea beasts", belongs to a well-known type of T'ang bronze mirrors. The T'ang period would be a rather late date for an object interred under a pagoda supposed to be erected around 600 A. D., but it does not preclude this supposition entirely because it is so far impossible to date such a mirror exactly within a period of a few decades either preceding or following the year 600. When the inspection was repeated last autumn, the same items were found but the numerous jewels were counted and grouped more carefully. There are 100 emerald rosary beads, 50 to 60 small and large light blue beads, one yellow marble, unpolished crystals, small amber pieces and a piece of folded gold plate. Plastic forms and moulds, as well as scale drawings were made of all the vessels. This is all the available information we have received up to January 1st, 1950. The outcome will be very interesting though we may wonder whether these sacred objects will really disclose the secret of the temple's erection date.

### 3. *The Lecture Hall (Kôdô)*

This third main building of the central compound does not exist in its original form because it burned down as early as 925. It was reconstructed in 990 and underwent some changes on several occasions since then. A careful archæological investigation was carried out in connection with its recent restoration, to ascertain the form of its original construction, but as the result is of interest only to specialists we prefer to turn to another group of Hôryûji buildings which have recently yielded a wealth of important information.

### 4. *The Eastern Precinct (Tôin)*

(a) *The Hall of Dreams (Yumedono)*. This beautiful octagonal chapel, the oldest polygonal building existing in Japan, is generally regarded as a Nara period structure but in reality it is a reconstruction dating from the Kamakura period (1230 A. D.). During the recent dismantling and repairing procedure, however, it was possible to arrive at a fairly reliable idea of what it looked like when it was first erected around 739 A. D. (Fig. 2). The differences seem slight, at least to untrained eyes, and yet they are important enough for they show very clearly the stylistic changes which took place between the Nara and the Kamakura eras, covering a period of 500 years. Originally the stone platform had but one layer and the main pillars were a little higher and supported not a double but a single row of brackets. More important

for the general appearance is the change in roof construction: the projection of the eaves was shorter and their curve a little straighter, the ridges running down from the top to the eight corners were not so strongly accentuated by the duplication of their lower ends, and the inclination of the roof was not as steep as it is in its present Kamakura form. The interior was different too, showing the open framework of the roof without a ceiling. The flatter, less voluminous and less majestic roof gave the chapel a lighter and more graceful appearance, the relation between "body" and roof was in favour of the former, the general scheme was simpler, the force of three-dimensional expansion more restricted and therefore the expression much more reserved. Thus we are enabled to distinguish the characteristic spirit of the early Nara period, while the positive traits of the forceful and sonorous Kamakura style stand out in sharp and paradigmatic contrast. It is interesting to note that the tendency to make the roofs steeper can be observed in several other buildings of later periods, e.g. the Phoenix Hall (Hôôdô) of the Byôdôin at Uji whose original roof (1052 A.D.) had a more gentle slope, and the Relic Hall (Shariden) of the Engakuji at Kamakura (c. 1280-1300) which originally cannot have had its present clumsy, out-of-style and out-of-proportion thatch roof<sup>5</sup>. All this furnishes us with valuable material for a stylistic history of Japanese architecture which is yet to be written, and it warns us not to take the present shape of a Japanese building at face value, be it ever so well dated by documents. Until now the Yumedono has appeared in practically all books as a typical Nara structure and its Kamakura alterations, though briefly mentioned, have never been recognized to be of any real importance.

When the Eastern Precinct underwent a systematic archæological investigation it was found that the pillars of its original Central Gate (Chûmon) which was later replaced by the Worship Hall (Raidô), and those of the encircling corridor (Kairô) as well as of the Relic-and-Picture-Hall (Shariden-Edono) to the North of the Yumedono were all inserted in holes in the ground (*horitate* or *hottate*) instead of being supported by foundation stones or a platform. In close connection with this fact it was found that all these structures were covered with cypress-bark shingles instead of tile roofs. In other words: even at the height of the continental influence during the eighth century only the central main building was constructed in the Chinese style while the subordinate structures were treated in the traditional, indigenous manner. This discovery, which corroborates the evidence of old documents (cf. Soper *op. cit.* p. 52), warns us against imagining that those early Buddhist temples represent an entirely homogeneous structural and stylistic appearance; moreover it shows that the Japanese retained a certain independence over against foreign models even in this period of enthusiastic and seemingly unrestrained imitation.

5. A. C. Soper, *The Evolution of Buddhist Architecture in Japan*, Princeton Monographs in Art and Archæology, XXII, Princeton University Press, 1942, pp. 159 and 203 (Hôôdô); 242 with fig. 134 (Shariden of Engakuji, with hypothetical reconstruction of roof).

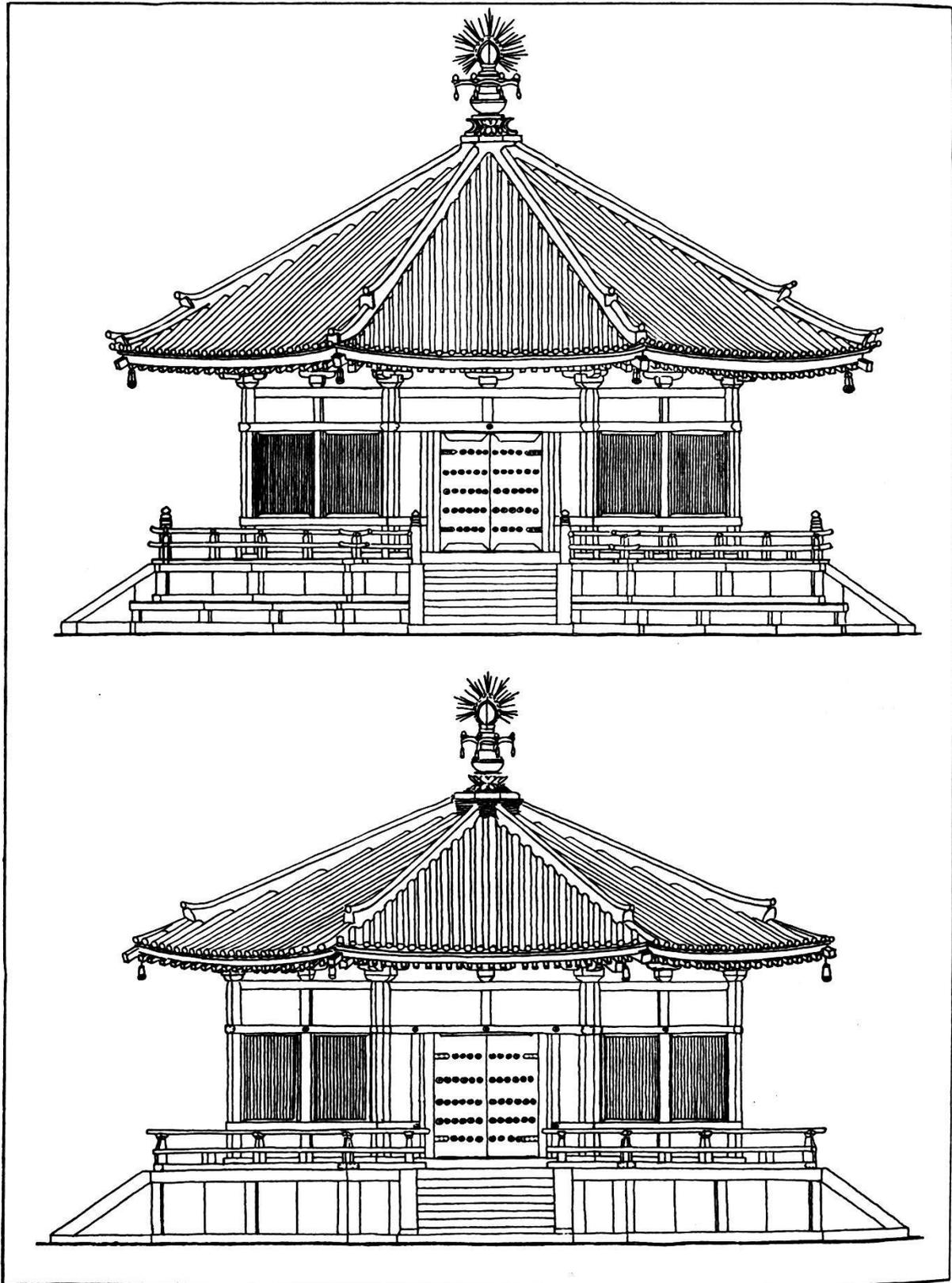


Fig. 2. *The Yumedono of Hôryûji*

Above: Present state. Below: Reconstruction of the original state of 739 A. D., by Asano Kiyoshi  
(After *Bukkyô Geijutsu* No. 4, 1949)

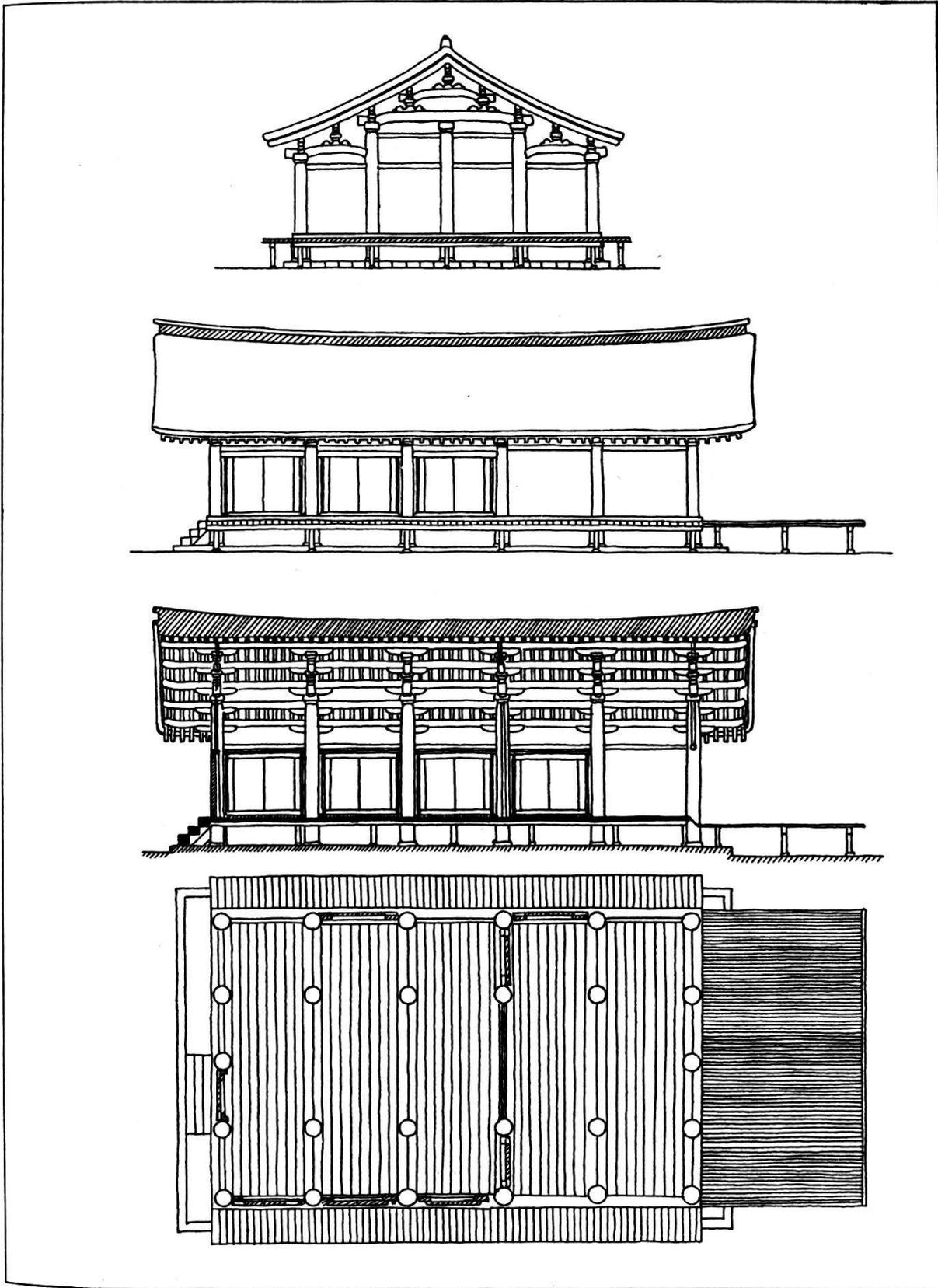


Fig. 3. *Tentative reconstruction of the original Dempo-dô of Hôryû-ji*  
(After *Bukkyô Geijutsu* No. 3, 1949)

(b) *The Dempôdô*. This building (the “Hall for the Transmission of the Holy Doctrine”), erected during the Nara period, but considerably altered in later times, is situated to the North of the Yumedono behind the combined Shari-den and E-dono. There is a tradition that it was originally the mansion of a Lady Tachibana, dedicated and transferred to the Hôryûji and converted into what corresponds to the Assembly and Preaching Hall (Kôdô) of a greater temple compound. Recently the structure was dismantled. Judging from a great number of old timbers which had apparently been used in the original building, and on the basis of archæological evidence discovered when the ground under the Dempôdô was investigated, it could be confirmed that this hall was actually once an aristocratic mansion. Originally it had only 5 *ken* (bays; 1 *ken* = the distance between two pillars) instead of the present 7; the interior was divided into two rooms the smaller of which (2 *ken*) was perhaps an open porch; at the eastern end, in front of this smaller compartment, something like an open-air terrace (*rodai*) seems to have been added, but this is hypothetical. The whole interior had a floor of simple wooden boards and was divided lengthwise by two rows of pillars into a “nave” and two “aisles” without walls or doors between them. The details of the construction – pillars, beam system, walls, doors, roof, etc. – may be seen from the reconstruction drawing (Fig. 3). The floor was raised above the ground and the pillars placed on foundation stones. A narrow open “veranda” of short wooden boards placed transversely ran along the northern and southern sides. Probably the doors were hinged and made of strong planks (as distinguished from sliding doors and the widely used, latticed *shitomi-do*), and there may have been whitewashed plaster walls and lattice windows. This tentative reconstruction of the Dempôdô is extremely important, even if it is partly guesswork, because up to now we have known of only one specimen of a Nara residential building, viz. the mansion of Fujiwara no Toyonari of which Sekino Masaru has made a reconstruction (reproduction of the model in Amanuma’s *Nihon Kenchiku-shi Zuroku* Vol. 1, Kyôto 1933; cf. Soper op. cit. p. 52). Every bit of reliable new evidence concerning the early (i. e. pre-Fujiwara) residential architecture of Japan is highly welcome. If the original Dempôdô was anything like the reconstruction published in *Bukkyô Geijutsu* No. 3, p. 94, it must have been a very interesting mixture – if not already a synthesis – of continental (Chinese) and indigenous elements. As a conspicuous detail let us mention the curious and yet successful combination of the typical Chinese beam system supporting the roof, and the roof covering of native cypress shingles. The general appearance of the remarkably unpretentious structure must have been very noble and graceful.

(c) *The site of Shôtoku Taishi’s residence “Ikaruga-no-miya”*. In and below the stratum of earth which yielded archæological remains of the Nara period, when the Eastern Precinct was first built, important earlier finds were discovered. Under a mess of

ashes, ruined earthen wall fragments and broken roof tiles ornamented with typical Nara period designs, a complicated system of post-holes was uncovered. They extended from under the present Dempôdô in the North to the central and southern parts of the Precinct, forming the ground plan of at least three large oblong buildings with two or three subordinate structures attached. One of the main buildings was a long narrow house standing in a North-Southern position on the East side of the compound, c. 70 ft. long by c. 23 ft. wide. Lengthwise it had 8 *ken* (bays) and crosswise 3. The interior was divided into a larger apartment of 5 and a smaller one of 3 *ken*, comparable to the later Dempôdô. Another building, extending in the North from East to West shows practically the same plan. So far the system of post-holes, which is very intricate, has not been entirely and definitely established, but a preliminary plan is published in *Bukkyô Geijutsu* No. 3, p. 95.

In all probability this compound, which is a good deal older than the Eastern Precinct, is nothing more nor less than the Ikaruga-no-miya, erected in 601, the residence of Shôtoku Taishi, the great crown-prince and regent whose importance for the cultural and political history of Japan in her most decisive formative period can hardly be overestimated. We know that he had the Hôryûji built to the West of his own palace and the Chûgûji, a nunnery, to the East, also that his palace was reduced to ashes by Soga Iruka after his death. Furthermore in the Nara period (739) the famous Buddhist priest Gyôshin, when he visited the Hôryûji and saw the area of Shôtoku's former palace so sadly devastated, made a vow to erect a sanctuary in memory of the great prince. All these documented facts coincide with the new finds; that the buildings must have been destroyed by fire is obvious because the excavated ground contained great quantities of ashes.

This discovery is of the greatest importance not only for Japanese history but also because it throws light on the development of residential architecture in Japan. Here we have the earliest remains of a Japanese royal palace – apart from the Shintô shrines of the Shimmei and related types which represent, at the same time, the “palaces” of the early rulers –, and this palace is probably one of the first to have been built after the introduction of Buddhism and Chinese civilization. But in contrast to the stately temple halls, pagodas, and gates, the residence of their originator was evidently erected on a rather modest scale, and as far as can be ascertained from the archæological evidence which is practically limited to little more than the post-holes, it showed the traditional, indigenous style. This statement, however, does not preclude that certain continental elements were adopted, and perhaps the pavilions of which Shôtoku's residence was composed may not have differed very much from later mansions of the Dempôdô type.

## DAMAGE SUFFERED BY HORYUJI MURALS

Cf. the exact diagrams answering both questions

No.	Subject <sup>1</sup>	Damage <sup>2</sup>
1	<i>Shaka-Jôdo</i> (Yakushi-Jôdo)	Cracks in the lowest area; broad strip of the surface fallen off in the right half, extending as a narrow channel to the left.
2	<i>Miroku Bosatsu</i> (Nikkô Bosatsu) Sitting in the <i>hanka-sôï</i> attitude, turning to his right	Long row of not very big holes vertically through axis of figure; small flaked-off spots in several places near the margin.
3	<i>Kannon Bosatsu</i> Standing	Two thirds of the right hand lower part fallen off (from knees of figure down); above, many cracks and holes, mainly within the contours of the figure, esp. on chest, neck, and right ear.
4	<i>Seishi Bosatsu</i> Standing	Face and throat entirely gone; large hole across stomach; small holes at left thigh and beside left foot.
5	<i>Miroku Bosatsu</i> (Gakkô Bosatsu) Sitting in same attitude as No. 2 but turning to his left	In lower right hand corner a medium-sized hole; on remaining surface only very small spots flaked off.
6	<i>Amida-Jôdo</i>	Worst damaged of all paintings, esp. by holes broken through wall by fire-hoses. Head of Amida entirely lost (hole c. 1 ft. square); another big hole at left side of lotus throne (c. 1 : 1.5 ft.); a third long-stretched area (c. 1 : 4.5 ft.) along right margin, of same length as standing Kannon figure which is entirely obliterated.
7	<i>Shô-Kannon Bosatsu</i> Standing	Greater part of face fallen off; cracks with smaller holes extending horizontally from face to right and left as well as vertically through axis of body down to the thighs.

1. Cf. Plan Fig. 1. — In brackets: other identifications, still maintained by some scholars.

2. The general deterioration of the paintings (fading, evaporation, dislocation, change of pigments, etc.) is not mentioned here because it applies more or less to all the pictures and to their entire surface.

## AND CONDITION OF COPIES

published in No. 3 of Bukkyô Geijutsu, pp. 122 sqq.

Copy <sup>3</sup>	Completed <sup>4</sup> : %	Burnt <sup>5</sup> : %
Only uppermost portion (baldachin and flying "angels") and monk's head on the right partly finished. Copying of main area not yet started.	(6,6)	—
Completed with exception of baldachin area and two adjoining vertical strips at extreme right and left. Central sheet covering head and body of Bosatsu, down to the hips, was burnt, but the entire lotus throne area saved.	75	20
Not yet started.	—	—
Not yet started.	—	—
Completed with exception of extreme bottom area which needs some finishing touches.	90,2 (9,8)	—
Practically completed, but two large bottom sheets burnt (centre and left, down from thighs of standing Bosatsu and from lotus petals of throne).	100	29
Not yet started.	—	—

(Continued)

3. Those portions of the copies that are mentioned as entirely or partly completed have been saved unless otherwise stated.

4. In brackets: partly completed, not quite finished.

5. Percentage as to the completed or partly completed copy-surface. (All figures given approximately.)

*(Continuation)*

No.	Subject	Damage
8	<i>Monju Bosatsu</i> Sitting on dais	Big area covering part of dais below left leg flaked off; two vertical rows of small holes running 1) at a short distance from figure's right shoulder and arm, and 2) near face, through left shoulder and elbow down into the big flaked-off portion.
9	<i>Miroku-Jôdo</i> (Shaka-Jôdo)	No heavy damage; but the faint vestiges existing before the fire now almost entirely obliterated.
10	<i>Yakushi-Jôdo</i> (Miroku-Jôdo)	Row of big flaked-off areas horizontally across the picture at chest level of figures, slanting down on the right along body of standing figure next to the Buddha. Another big area has come off below the "angel" in the upper right-hand corner; small spots peeled off near lower left-hand corner. General damage, however, comparatively slight.
11	<i>Fugen Bosatsu</i> Sitting, on elephant	Comparatively well preserved; no cracks, but colours faded.
12	<i>Jûichimen-Kannon</i> Standing	Small holes from mouth to centre of chest; row of small spots down from left hip to between left leg and hanging shawl. Horizontal crack across ankles. Colours best preserved among all pictures.

Copy	Completed: %	Burnt: %
Almost completed. Lower half down from right hand and left knee burnt.	100	45
Upper half (from waist of figures upwards) and nethermost strip at bottom near completion. Greater part of lower half not yet started. Burnt: almost two thirds (central and right) of upper half (except uppermost strip containing baldachin and "angel") and two thirds of bottom strip (central and left).	67	50
Almost completed; only "angel" in upper right-hand corner not quite finished.	100	—
Completed: upper half (above head of elephant) except trunk and arms of Bosatsu, which portion is not yet finished; further the bottom strip. Not yet started: lower portion, filled by elephant, and an unimportant border area. Burnt: head of Bosatsu with shoulders and halo; bottom strip. Thus, practically nothing but uppermost strip with baldachin and unfinished waist portion saved.	60	42
Not yet started.	—	—
Average:	608,6 (of 1200) = c. 50%	186 (of 608,6) = c. 30%

The ratio of burnt copy-sheets to entire surface of paintings is c. 12%; not yet copied were c. 50%. That means that c. 62% of entire painted surface is not covered by copies and is lost beyond reconstruction.

PALMBLATTMANUSKRIPTE  
IM BERNISCHEN HISTORISCHEN MUSEUM

Wenn das Historische Museum in Bern eine stattliche Zahl süd- und hinterindischer Palmblatthandschriften besitzt, so ist dies zu einem guten Teil dem ehemaligen Professor des Sanskrit an der Universität Bern, Eduard Müller-Heß, zu verdanken, der auch eine davon, enthaltend einen der wichtigsten Texte der buddhistischen Philosophie (die Dhammasangani) herausgegeben hat. Sie sind in neun Sprachen verfaßt (Sanskrit, Pâli, Singhalesisch, Tamil, Kanaresisch, Siamesisch, Laotisch, Kambojisch und Birmanisch), und bedienen sich sieben verschiedener Alphabete, die trotz ihrer weitgehenden Differenzierung alle auf die nordindische Brâhmî zurückgehen. Inhaltlich gehören sie fast ausnahmslos dem «südlichen» Buddhismus, dem Hînayâna, an und enthalten zum Teil noch wenig bekannte Texte, besonders singhalesische aus dem 10. bis 14. Jahrhundert; viele sind Bilinguen, was ihre Bestimmung erleichterte. Unter den nicht-buddhistischen befindet sich eine kanaresische Version der *Siebzig Erzählungen des Papageis* und eine singhalesische Übersetzung des berühmten Sanskrit-Thesaurus *Amarakoça*. Es ist das große Verdienst von CONSTANTIN REGAMEY, Professor an den Universitäten Freiburg und Lausanne, diese Handschriften nach Alphabet, Sprache und Inhalt bestimmt zu haben (*Manuscripts sur feuilles de palmier. Les manuscrits indiens et indochinois de la section ethnographique du musée historique de Berne. Catalogue descriptif. Jahrbuch des Bernischen Historischen Museums in Bern, Ethnographische Abteilung. XXVIII. Jahrgang, 1948, S. 40–62*). Einige treffliche Photos geben einen Begriff von diesen schwer lesbaren, augenmörderischen Manuskripten. Ihre Bestimmung war noch dadurch wesentlich erschwert, daß die meisten weder Titel noch Kolophon enthalten und manche nur in Fragmenten vorliegen. Nur einem vorzüglichen Kenner der buddhistischen Literatur konnte deshalb ihre Bestimmung gelingen.

E. ABEGG