REVIEWS.

Emploi de la pierre en des temps reculés, Annam—Indonésie—Assam,
par
Mlle. Madeleine Colani,

250 pages, 63 photographs, 139 maps, plans and diagrams,
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1943.

The use of stone in remote times in Annam, Indonesia and Assam is
the title of the last work written by the learned Dr. Madeleine Colani
who so recently passed away. Like everything written by this distin-
guished prehistorian it is carefully, convincingly and lucidly worked out,
and being the pioneer work of its kind this book is destined, probably for
ever, to be considered a standard work.

The author's discoveries in Annam of water reservoirs, wells and
superimposed terraces for sacrificial purposes have already been shortly
mentioned in the Cahiers de l'Ecole Française d'Extrême-Orient but the
whole problem of these no doubt ancient and very interesting hydraulic
constructions is here taken up for a thorough scientific examination worthy
of Mlle. Colani's accustomed sagacity and wide learning.

The locality of the northernmost of the irrigation works and other
stone constructions, treated in this book, is found in the centre and
northern parts of the province of Quang-Tri. The constructions on the
basaltic outcrops of Gio-Linh and Vinh-Linh, situated to the northwest
of Huế, come in for special treatment as they are more numerous here
than in any other region of Annam. The basaltic soil is the outcome of
decomposed basalt, a volcanic product. This soil, which is very fertile,
consists of two kinds, black and brown, and red earth. Basaltic soils
are very good conductors of water, and as such are the raison d'être for
the water reservoirs, wells and irrigation works constructed by the, so far
to us, unknown ancients who once peopled the hills and plains of Annam long before the advent of the Annamites.

The author divides her book into eleven chapters. In the first chapter she treats such generalities as have already been mentioned in the first part of our appreciation besides describing the component parts of one of the most complete systems of water reservoirs found, viz., on the basaltic outcrop of Gio-linh. Taken in order from top to bottom such a system consists of 1) a dry terrace and below, 2) an upper reservoir into which runs the water issuing from the hill, still a little lower, 3) the supply basin that receives its water from 2), where the villagers come daily to fetch their drinking water, wash their clothes and vegetables and bathe, 4) a large basin, slightly inclined, with almost stagnant water which serves as outlet for the water received from the upper basins. Here the buffaloes love to welter in the liquid mud; and finally there is 5) the drain through which the paddy fields are irrigated by the outflowing water.

In some cases there are complementary basins and drains for a wider distribution of the water. Often there are seen the ruins of rectangular enclosures situated in the forest at variable distances from the terraces. Inside such enclosures are found the communal house or a small pagoda.

The author asks: Have these recent constructions replaced some ancient edifices? That is probable though not certain. The present villages, like the ancient ones, are built on these basaltic hilly formations, and from them lead rustic flights of stone steps down to the basins. The steps are often made of quite raw and unfashioned stones. Beside the basins and the stairs other ancient constructions are met with such as stone paved roads, earthen ramparts reinforced with raw stones, stone walls, etc. Father Cadère, who knows well these regions and the mystic ideas of the population, thinks he has detected in these constructions the intention of the ancients, by the help of magic, to defend themselves against the influence of evil powers.

It is surprising that no stone monuments, statues or inscriptions have been found, even hardly any fashioning of the stone. Still the work of organizing a whole region by building stone ramparts and making complete water installations for the villages, irrigation of the fields, etc. must mean that they were executed carefully according to a preconceived plan. In order to arrive at an exact idea it would be necessary to enter accurately all these vestiges on a map, scale 1:25,000. First then one would understand the stupendous work carried out by these enigmatical people.
Who were the builders of these water basins? Nobody knows. But two facts remain: 1) A huge, a fabulous quantity of large pieces of basalt has been transported to these various constructions, and 2) that this work must have required a large number of brawny arms. To direct such work there must also have been an energetic and competent administrative organization. In chapters II, IV, V and VIII the author describes altogether some 131 water basins and irrigation works and wells. The bathing basins with their water spouts are almost identical to those found in Bali and on Nias (to the west of Sumatra). Some of these water systems are quite extensive as for instance that of Kinh, with its three water spouts, which from north to south has a length of about 55 metres. Two staircases lead down from the village of An-Nha (pronounce An-Ya) to this installation. It is a pity that the Annamite peasants of our days do not do anything in the way of keeping these wonderful and to them so useful constructions in good repair. As the author says the spirit of the Annamite is not bent on keeping up but rather on destroying. We cannot follow the learned lady in her detailed descriptions of these numerous water installations of which hardly two are identical in design, being, everyone of them, cunningly adapted to the contours of the land; but shall only, here and there, mention some of the more characteristic features of them. The output of water from these installations is very variable, in some cases very considerable. The output of the installation at the "Royal pagoda" is thus 33,600 litres per hour i.e. 806,400 litres or 806 cubic metres per day which may be called enormous. The neighbouring paddy-fields are therefore very well irrigated.

The author takes the opportunity, when speaking about the use for bathing purposes made by the local population of these water basins, to comment on the degenerate and unhealthy appearance of the Annamites of these regions.

It must be remembered that though the various water systems were excellently planned and executed by their unknown builders there never arose any question of a single vast comprehensive system of irrigation. Each installation was only intended to serve the needs of one particular village. However, the numerous installations of this kind have made of the Gio-linh basaline plateau one of the most fertile spots in Annam. That the ancient builders built well and solidly is proved by the presence, under the surface of the ground, of blocks of stone consolidating the terraces and supporting the walls thus ensuring the continuous outflow of the water. Even somewhat rough underground works were carried out.
Every installation has its guardian spirit, a jealous and inexorable spirit, often evil-minded and dangerous, with whom one must keep on good terms by propitiatory sacrifices. Our author had to offer such a one in order not to offend the spirits by her excavations! In some villages there is, besides the magic defenses against outside evil powers, also to be thought of more material enemies such as the terrible man-eating tigers of Annam as well as the savage Mois of the hilly hinterland. In chapter III the author discusses the problem of the religious cult for which the terraces were destined, as well as the stone enceintes. On or near the terraces are always seen growing immense and very old specimans of the Ficus religiosa, our Bō three, which may reach an age of about 2,000 years. Were they contemporary with the builders of the basins? To find out the particular kind of religious cult associated with the terraces and basins one must go to other places where like constructions are found. Dr. von Heine-Geldern mentions baths consisting of three basins at Penanggan which were made in memory of a Javanese prince whose ashes are interred there (977 C. E.), and at Oetliang, also in Java, another system of baths underneath which the ashes of King Airlangga (ca. 1042 C. E.) are probably interred. Among the Angami Nagas in Assam are found stone-lined wells, that, beside their practical purpose, also have a ritual one. Among the Katscha Nagas small stone pyramids with a water basin at their side are made in memory of the dead. The Khari and Jamtia dig ponds for washing the ashes and bones of people who died from a violent death. Three menhirs and a platform of horizontal stones are erected near by. And among the Mikir, also in Assam, as well as in Nias, similar customs are in existence. Mlle. Colani next discusses the significance of the menhirs and says that in Assam they were destined to preserve the name of the dead; to be a dwelling place for his soul, and to protect it against dangers met with in his new life, and furthermore to assure him of the fertility of his fields and cattle. This fertility bringing attributes of the megaliths are on par with the rôle played by water. The Angami Nagas have an elaborate system of irrigation with terraces. (1) Stone paved chaussées, stair-cases and watering places are also found with them even stone platforms for dancing. Mr. Hutton, well-known as the expert on all knowledge pertaining to the Naga tribes of Assam, mentions the latter as existing also in the southern Pacific isles, the Marquesas, and compares them with

1) As our Lawă on the Bō Luang plateau, southwest of Chiangmai.
those found in South America! The present Annamite occupants of the
cities using the water installations have only the vaguest ideas about
the purpose of the terraces but being pronounced animists they venerate
the giant focus, and the malignant supernatural beings they feel are present
here. All research work tending to arrive at the true origin is made
more than difficult by the Annamites' systematic and fanatical destruction
of all the memory of their predecessors in the country now occupied by
them. (2) Still from what is left us to-day the relationship between the
cultures of Indonesia, Annam and Assam is evident enough.

With regard to the origin of the water reservoirs at Gio-linh the
author says that these are certainly not the handiwork of Annamites who
only use wood, earth and bricks as building materials. Nor could it be
the primitive hill-people of the backland, nor the Thai who never con-
struct with dry stones. Finally the elaborate irrigation works of the
Châm and Khmer engineers are quite different from what is met with
here. The author therefore concludes that these constructions must be
due to a foreign people which certainly has left descendants in the
province of Quang-Tri but who now have been absorbed by the more
numerous Annamites. As belonging to this mysterious people, Rev.
Father Cadière considers the large accumulations of potsherds encountered
at certain old places of call situated at the river mouths along the coast
(of Annam), and he therefore thinks it justified to conclude that the
Indonesians arrived here by ship from the south, i.e. Insulinde, bringing
with them ceramics and other merchandize which they exchanged with
the local population (3) for forest products from the backlands. The
Indonesian traders and navigators by and by colonized the country and
established themselves at Gio-linh. They cleared the jungle and tilled
the fields, and they were the builders of the water installations, the
terraces and the basin, also introducing irrigation of the paddy fields by
which they proved themselves excellent civil engineers.

When did this colonization take place? This is not yet possible to
say. The stone cultures found in Annam, Indonesia and Assam belong
to the same culture. Assam received it perhaps from navigators who

(2) M. Claesys says that only about twenty temples are still standing erect in
what was ancient Champâ, present Annam, all that is left of probably
many hundreds of splendid temples, and this is due to the vandalistic spirit
of the Annamites.

(3) Was this population not Moi Khâ?
from Nias sailed up the gulf of Bengal (landing on the coast of Arakan) and penetrated inland to Assam. Rev. Father Cadière says, however; Were the builders of Gio-Linh navigators from Indonesia? Or were they local people related to the Indonesians? And were the emporiums (where the potsherds have been found) perhaps not due to different merchants probably more recent? We shall later explain why we do not agree with Dr. Colani but side with the learned Reverend Father. Professor Hutson, however, agrees with Dr. Colani saying that at a certain undefined period there was a migration from Indonesia to the hills of Assam.

The wells studied by Dr. Colani are either round-or square-formed, the materials used for their construction being also blocs of basalt. Some of these wells have a natural subterranean outlet. In the Notes on the irrigation works of the Chăm in the province of Phanrang the author says that it seems that the Burmese were the educators of the Chăm with regard to hydraulic works. We doubt the correctness of this view partly because the Burmese were the last of the Indochinese nations to become civilized, and partly because their hydraulic methods used at the mines of Pallin seem too recent to have influenced Chăm technique.

According to M. Montandon, the irrigation of terraced fields belongs to a so called austronesoid culture cycle which extended from Insulindie to Madagascar and Easter Island in the Pacific. Irrigated terraces are also found in the Mexico-andinoide culture cycle, where this art reached its highest development. Dr. Rivet, the eminent anthropologist and Americanist, says that the Peruvian irrigation systems were anterior to the Incas. He also says that to attribute the analogies of these two cycles, the Austronesoid and the Mexico-andinoide, to simple coincidence would be an error. The Amerindians are not antochtons, and at present we know that four different elements have contributed to build up the race of the Amerindians; vis. an Australian; an element of the Malayo-Pelynesian tongues related to the Melanesian group; an Asiatic element which, by far was the most important, and which has given a certain uniform aspect to the American Indians, and finally a Uralian element represented by the Eskimos. The Malayo-Pelynesian and the Australians would have come to the Americas by sea.

The cult of stone in Annam has been studied and treated in a superb manner by Rev. Father Cadière (4) so as to serve as a model for all

studies of this kind wherever it occurs on our globe. Few, if any, have been able to penetrate and grasp primitive beliefs and ideas of the supernatural better or even equalling this venerable and learned missionary. The view of these rural altars placed in the most picturesque environments framed by fine old fico trees bear witness to the profound worship of nature already possessed by the ancient builders of our terraces and water systems. Such an understanding of the beauties of nature is found, more or less developed, by many primitive people. That the ancient builders worshipped both stones and trees it quite clear. This kind of worship was also known in Europe where it became necessary at the beginning of the mediaeval period to forbid Christians to worship such stones thought to be inhabited by occult powers (fetiches). In our days the cult of stones is still practiced among the Angami Nagas who even believe that stones may move from one place to another. The Melanesians believe that some stones are endowed with miraculous powers. The Annamites, who are animists pari excellence, also believe that stones may be inhabited by spirits, good or bad, especially the latter.

Among the Annamites, the presence of the screen, binh-phong, in front of temples, pagodas, houses and tombs is of a special interest. The binh-phong "which protects against the wind" is first of all a material protection against the winds themselves and next a supernatural one, a magical defence against evil influences brought by the winds. Such a magic screen placed in front of the house door is a sure protection because the poor evil spirits only know how to move in a straight line. They are not able to turn corners!

Almost all of the spirit stones (génies-pierres ou pierres-génies) bear inscriptions addressed to the demons under forms of menaces or prohibitions. They are thus conjuring stones. The inscriptions which are in Chinese, are surely much younger than the stones themselves. However, even without the inscriptions, the stones would have played the same rôle in the magical defence of the water installations. The author enumerates a certain number of villages where sacrificial terraces are found. The terraces are probably very old and the same as used by the ancients who built the water installations. We believe we have found such sacrificial terraces on Doi Suthep in North Thailand (5) which, of course, is not so surprising as this part of Indochina would be in the same stone culture cycle as Northern Annam.

(5) Vide our Antiquities on Doi Suthep JBS. Vol. XXXI, Pt. 1, p. 39 and map facing p. 37.
On the terraces are also found ancient tombs with cenotaphs which are called by Annamite names. Some are round and some square formed, the former no doubt represent the oldest (6) and in spite of their present names may represent the tombs of those unknown Indonesian master-engineers who were responsible for the construction of the water installations and irrigation works, and whose spirits are now worshipped by the present ignorant Annamite peasants.

Besides the cult of stones there also existed and still exists a cult of trees in Annam. This cult does, however, only represent an almost world wide similar cult. To-day certain trees are venerated in Egypt and were so in ancient Helias. The veneration paid to the Ficus religiosa, or Bō tree, in all Buddhist countries is well known. According to the Jatakas the Buddha himself was reincarnated up to 40 times as a tree spirit. A number of primitive tribes both in India and Assam are also tree worshippers. Rev. Father Cadière has written an excellent treatise on the Annamite tree cult in the region of Huế in which he submits this kind of superstition to a most searching and thorough examination. (7)

When the Annamites consider a tree sacred it is nearly always due to the presence of a feminine spirit dwelling in it. Like our dryades in antiquity. The cult of trees is widespread in China too. Dr. Saillet says that the old kingdom of Champa was protected by a tree called kraïk, and the life of the kingdom depended on this tree. According to observations made by the ethnologist Colonel Roux the cult of trees does also exist among the hill tribes of Annam and Laos. This is confirmed by that profound connoisseur of the Mói or Khâ tribes, M. Marcel Ner. M. H. Marpéro has found this cult among the Black (pagan) Thai too. M. Hardonin says that the Thai of that land believe that the tall stately diphterocarpi are inhabited by female spirits—phi nang mai.

The widespread custom of bead hunting may also be found side by side with the construction of water basin as both play a rôle in fertilizing the fields the latter so materially, the former magically. Not only the

(6) The round shape seems to have preceded the square in all man's works, so for instance the very first huts were all round. Mlle. Colani argues the same with regard to the shape of the basins.

(7) Vide Rev. Father L. Cadière Croyances et pratiques religieuses des Annamites dans les environs de Huế—Le culte des arbres. BEFEO, vol. XVIII. See also in vol. XIX of same bulletin his article on the Annamite cult of stones, boundary stones and magic stones.
savage tribes of Borneo, the wild Wā and the various Nāga tribes of Assam practice this gruesome custom of head hunting but also the otherwise civilized Ahom, who are Thai, did use to place the cut-off heads of conquered enemy chieftains on the tombs of their kings, or even interring several slaves with the bodies of their kings, as the ancient Sumerians did in Ur more than 4,000 years ago. Certain primitives believe that the head is the abode of the soul. Among others a young girl will refuse the courtship of a young brave if he doesn’t produce a head cut off by himself! The wild Wā consider the obtaining of human heads as vital for the fertility of their paddy fields. It is a seasonal duty to procure such heads. Professor Hutton thinks that the fertilization of the fields through the souls (of killed enemies) is an accepted belief in the whole sphere of Indonesia. The customs in this connection followed by the wild tribes in the Philippines are exactly as those in Nagaland in Assam. There is a cultural connexion stretching from the hills of the Nagas to Melanesia with ramifications crossing the Pacific Ocean to New Zealand. The fundamental beliefs and habits are almost the same, also such as regards stone monument more or less phallic, the custom of erecting certain menhirs and dolmens, etc. Professor Hutton opines that the hunt of heads goes back to neolithic times while the phallic cult and separate burial of head and body belongs to palaeolithic times.

Mlle. Colani arrives at the conclusion that 1) the majority of Indonesian people, the "driven back to the hills" —people of Indochina, and some of the Assam tribes are cousins, and 2) that a part of these people practised or practise the cult of stones associated with that of the ficus and the water which cult evidently existed at Gio-Linh (and at the other water installations and irrigation works in Annam). As remains of a former hunting of human heads she tells of the forty two monkey skulls seen is a Kha Lo' hut in the Quang-Tri province. (8)

To what race did the builders of the water installations belong? Mlle. Colani has three proposals:
1. The descendants of these primitive engineers are still existant among the Khâ or Moi people.
2. The first proposal may be connected with a migration of part of the Gio-Linh people to Indonesia (Insulinde).
3. Men coming from Indonesia as colonists.

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It is today admitted that part of the hill people of Indochina are people fallen from a former higher stage. Some of them have even had a brilliant past. The majority of their ascendants on the other hand have left for and settled in Indonesia. We agree with proposals 1. and 2. but not with 3., and we think the author's last statement is quite correct and very likely to be accepted by all ethnologists studying the migrations of the peoples of South East Asia.

Mlle. Colani quotes the following arguments in favour of the hypothesis of a "driven back to the hills" population. Her information is mainly due to Rev. Father Cadière, who states that among the Annamite dialects the one spoken in Upper Annam (from Huế to Thanh-Hoa) is nearest to the Mu'ong dialects. M. Ner says he has penetrated into the district of the Kil, one of the most primitive of the Moi' tribes, to the valley of the Male river and the valley of the Females river. Rev. Father Cadière says that at Gio-Linh we find the well of Ong (Mister) and Ba (Madam). The latter is the most complete with a central stone (linga). This suggests a matriarchal system and among the above-mentioned Moi' Kil the matriarchate is in vogue too. The Reverend Father adds that in Upper Annam, north of Quang-Tri, there exists a cult of raw stones called But. This cult is also found among the Nguon and the Sach, two Mu'ong tribes to the northwest of Quang-Binh, and again this cult is encountered among the Munda tribes of Northern India with exactly the same name and same ideas.

Mr. Van der Hoop thinks that part of the ancient Dong-So'nians (9) may have been absorbed by the Mu'ong. Were not our Gio-Linh people also absorbed by the Annamites? The Annamites themselves have a vague notion that their present country was inhabited formerly by "another" people whom they call Moi' i.e. barbarians. As will be seen the preceding arguments are all in favour of a relationship between the builders of the water installations and the "driven back to the hill" people. On the other hand M. Gourou says that the hill people of the Annamite cordillera and the Cambodian mountains are clearly in relationship with the inhabitants of the Southeastern Asiatic isles, with the Dayaks of Borneo a.o. This fact, Mlle. Colani has further established by her studies of comparative ethnography in Indochina and Indonesia. A comparison of the bathing basins at Gio-Linh with those found in Bali and Nias should

(9) Vide our Appreciation of the Cahiers de l'Ecole Française d'Extrême Orient vol. XXXIII, P. 7, p. 32.
convince any doubting critic. In Bali too, are found the sacred tree Waringin, and the raw stones worshipped in company with the images of Hindu gods. In Assam and in Burmah agriculture is very old and in no other part of the Asiatic continent does one find so numerous and profound similitudes with the hoe culture of the Indonesians and Melanesians, says Buschan (10) Messrs Mills and Hutton say that the monoliths of the Synting and Naga tribes of Assam represent lingas, the standing, while the lying signify the female principle. All this seems to indicate that the descendants of the builders of water installation are to be found partly in the hills of Annam partly on the isles of Indonesia.

There are many points of resemblance between Assam, where 60 different languages are spoken, and Indonesia (Celebes), New Guinea, Fiji, the Marquesas Islands and Madagascar. Such are human sacrifices when building a new house, ancestor worship connected with the phallic cult, the myth of the tower of Babel, a god serpent encompassing the earth, the souls of the dead going to live in a mountain, oaths taken by drinking water wherein a weapon has been dipped, (11) red is the colour of royalty and many more all showing strong cultural ties between these widely separated places. One of the traits common to the Kuki of Assam and the Hovas in Madagascar is a curious myth about somebody, who escapes from a pursuing ogre by throwing a feather which becomes a forest. This kind of myth is well known in Scandinavia where it is found in several folk tales, see, for instance, in Selected Folk Tales (Udvalgte Eventyr) by Hans Ellekilde, the tale about The Grey Filly where the witch, who pursues Hans and the princess, whom she had transformed by her magic into a grey filly, is stopped several times by Hans throwing three grains which in succession become a forest, a glass mountain and a lake. On plate CCVI-I is shown on a small map how these cultural elements were diffused from centres in Sumatra and Java to Ceylon, South India, Madagascar, Assam and the Philippines, New Guinea and cross the Pacific Ocean.

In an additional note Mlle. Colani says that her investigations of the Kjokkenmodding at Samrong Sen in Cambodia reveals that the implements found there are related to those found to-day in Indonesia and the Malay Peninsula, and she concludes that there are two layers of culture in that

(10) Illustrierte Volkerkunde.

(11) Compare this with the former Tu'am ceremony in Thailand and Cambodia.
kitchen middens; viz., one of a dolicocephalic race with primitive implements, and another, later, of a brachycephalic race with less primitive implements. There must have been numerous connections in bygone days between Indochina and Indonesia, due to which the water-works at Gio-Linh owe their origin (by the hardy Indonesian navigators). Mlle. Colani finishes, however, by saying that the contrary is also possible, namely that it was the Indochinese who taught the Indonesians how to build their water basins and irrigation works. We would add that though a cultural reflux from the Indonesian islands to Assam and Indochina is very possible we still think, and it seems that the late lady savant shares our opinion, that the main cultural current, giving birth to megalithism, the construction of water-works and introduction of irrigation, came from the west (12) going eastwards (and southwards) till after having crossed the Pacific Ocean, it reached the two Americas. We think that we are right in this supposition as megalithism in Western Asia, North Africa and Europe is far older than is the case in the Far East. Also from Mlle. Colani’s great work Les Mégalithes du Haut Laos it is evident that the makers of the jars, and those who erected the megaliths, had received their knowledge from the west and not vice versa.

This book on the use of stone in remote times, which we have tried to render an account of in the above, was the last work from the hand of this deeply learned lady scientist, and it therefore seems only fit and proper that we should conclude our appreciation with a few words in memory of an unusually active and for the common human knowledge so fruitful life as was hers. We had the privilege to meet the late Mlle. Colani in February 1938 when she visited our exhibition of Thai national and tribal dresses in the House of the Thailand Research Society. In Professor Coedès’ moving obituary, published in L’Action (a French paper in Hanoi) of 5th June this year, we are told that Mlle. Madeleine Colani was born in Strassbourg in 1866. She studied in Paris and came to French Indochina in 1898 as a teacher in natural history in which capacity she remained until 1916. Meantime she had taken up the study of geology and in 1917, having then taken her doctorat es-science with honours, she entered the Geological Service of Indochina and worked there until her retirement in 1927. Her prehistoric research work in company with

(12) Irrigated terraced paddy fields as well as fountains with bathing ponds, strikingly alike to those in Bali, are found in Nepal. See Majors W. Brook Northey & C. J. Morris in The Gurkhas 166 and p. 178.
the late Mauuy, her famous discoveries of human remains in the caves at Bacson and her strict methods employed, when excavating, soon made her known in the scientific world as a savant of the first order. As will be known a whole cultural stage, the Bacsonian, was named after her discoveries. The far-seeing first director of the Ecole Francaise d'Extreme Orient, the late Louis Finot, therefore decided, in 1929, to attach Mlle. Colani to the School. Numerous and always fruitful were her voyages of exploration to the various provinces such as Hoa-binh; Chiang Kwang and Hua Pan the results of which were published in admirably written and illustrated papers in the Bulletin EFEO, besides in her beautiful monumental work on the jars and megaliths of Upper Laos quoted above and the book here under review. Also her studies in comparative ethnography are of the greatest value. We should think that no or very few prehistorians could have managed to excavate or examine the same number of caves as Mlle. Colani did. She who looked a tiny frail creature, possessed an indefatigable will power, and in her soul, there burned the sacred flame of persevering enthusiasm. As Professor Coedes rightly says "The life of Madeleine Colani, filled with labour and devotion, is the most admirable example of an existence completely devoted to the culture of the spiritual values." She was indeed a great woman, a great savant, and a noble soul was hers!

All works by Mlle. Colani laid down in numerous articles and several books, should be carefully read and digested by our young Thai students of geology and prehistory as they are the necessary premises, so to say, for the study of the prehistory of this part of Asia. Indeed no better guide could be found! Below we give a list of her contributions to the Bulletin de l'Ecole Francaise d'Extreme-Orient and others.

BEFEO. vol. XXIX  — 1. Quelques stations hoabinhiennes.
    vol. XXXI  — Recherches sur le Prehistorique indochinois.
    vol. XXXIII  — Procédés de décoration d'un potier de village.
                   (Cammon-Laos).
    1. Céramique, procédés anciens de décoration.
    2. Champs de jarres monolithiques et de pierres funéraires du Tranh-ninh (Haut Laos).
    4. Hache péiforme.
    5. Trousses de toilette hallstatienne et actuelle.
M. V. Goloubew delivered on the 16th March 1942 a most interesting lecture on *Antique China and the archaeology of Tongking* based on a study of the famous Curtis vase in the collections of the Louvre Museum. (Cahier No. 30 pp. 23—29).

This bronze vase is a vine vessel of the type *hou* and destined for ritual libations. Apart from two masks of the *Tao-t’ien* (*ogres head*) there are no other decorations in relief on the vase. The scenes, which are to be described, are cut out of thin copper leaves, divided into four horizontal bands, running round the vase. The art of metal incrustation, as in the case of the Curtis vase, was not invented in China, but in the Near Orient, in Mesopotamia, probably in the third millennium before C.E. Poignards found during excavations in ancient Mycenae show excellent work of gold incrustation. The bronze work decorated in this manner found in China seems to be relatively recent; the oldest dating back to the IV to III centuries before C.E., from the period of the three kingdoms. The Curtis vase is from this period during which China began to feel the influence of the countries of the West. It is no longer a secret to-day that China owes much to ancient Hellas and the hellenistic civilisations of the Near Orient. The scenes depicted on the vase can all be explained as elements of an ancestors' feast. During the period of the Chou dynasty (in China) it was the custom to precede the ancestors' feast with contests in shooting with bows, as seen from the decorations on the Curtis vase, also for the young women to go and collect aromatic pepper which, together with wine, was a wellcome sacrifice to the ancestors. The preparation of the sacrificial food and the offering of it to the ancestors' spirits in the shape of birds, wild geese, is clearly depicted on the vase too. Now exactly the same scenes are depicted on the bronze drums found in Tongking whose decorations have been so well and ingeniously treated by M. Goloubew in BEEEO. M. Goloubew, by comparing these scenes with certain Dayak pictures, has arrived at the certainty that they represent funeral feasts, such as are still in vogue among several Indonesian tribes to-day. With regard to the dancers dressed up like birds these are also found among the Paua of New Guinea, and tradition in Indo-China speaks of them too. A photograph, reproduced in Colonel Digeut's book *Les Annamites*, is in this connection of special interest. It shows a family feast, which took place in the neighbourhood of Gao-bang some 40 years ago, and on which are found the three essential elements: the ritual feast, the music and the arrival of the bird spirits, just as depicted on the
Curtis vase which was made 22 centuries ago! In our days the sorcerers of the Mu'ong (Province of Thanh-hoa, Annam) still disguise themselves as bird phantoms i.e. when officiating at burials but here the costume has been reduced to a single peacock's feather which the sorcerer holds in front of himself. Such simple make-believe disguises seem also to have been known in archaic China, so well described by the late Marcel Granet. However, it is more than doubtful that the figures represented on the Curtis vase are Chinese as none of them are clothed in the costumes familiar to the Chou or Han period, and the archers are completely naked, a very un-Chinese feature. Then again most of these human silhouettes, which by the artist are treated so spiritually, have the appearance of young women with narrow waists and pronounced hips (like the Minoan women?). To what people did they belong? We think they may have been Indonesians of a sort. Due to the contact with the West, via the steppes of Central Asia, China received many of the myths of ancient Hellas and the Near Orient among them that of the Amazons. The latter myth was much in vogue among the Taoistic writers. In one of these myths, somewhat transformed on Chinese soil, is mentioned a nation of women whose ancestors were birds. They were all of a remarkable beauty and very hospitable but they all died before their 30th year! Should an analogous myth perhaps be the origin of the fascinating problem with which the Curtis vase confronts us, so concludes M. Goloubew his interesting feature. The isles or the old kingdom of women was believed by certain Chinese geographers to lie to the east of Java (or China). (2)

Of other particularly interesting things found in the recent Cahiers we shall mention M. Paul Boudet's The treasures in the archives of the emperors of Annam. A study of these archives might be of interest to Thai historians too.

The clearing of the trees and other vegetal growth which endangers the stability of so many fine Khmer temple ruins goes on, and several buildings have been saved in this way in the nick of time, the work of consolidation and anastylosis progressing hand in hand with such operations. When are we in Thailand going to act likewise? One must hope that such work is commenced, in part at least, as soon as possible when normal conditions have come back to stay. M. Paul Lévy has

made a new find of paleolithic implements at Ban Vang, on the Mekhong-upwards from Wiengchan. These implements are identical to those found in the rich deposit near to Luang Prabang. Perhaps researches on our side of the Mekhong upwards from Nongkhai or Tha'bo would reveal similar deposits? Caves, which contain traces of human occupation during the stone age, might be sought for in the Loei-Chiangkhan region. M. Lévy has also made an ethnographical atlas of French Laos. All this should serve to stimulate our young Thai scientists to do similar work. In spite of the systematic destruction of the Cham monuments carried on for hundreds of years by the iconoclastic Annamite conquerors discoveries of sites of old temples, towers and citadels of the Châm are constantly made, also of some fine statues of Hindu gods.

The school has been lucky in interesting Vice-Admiral Decoux, the Governor General of French Indochina, in their work of reconstructing, by the process of anastylosis, so many of the gems of the Khmer monuments, to such a degree that they have obtained a substantial grant of money whereby they will be able to reconstruct the gates of Angkor Thom and the giants' chausses. Such good news must gladden the hearts of all archaeologists and lovers of the beauty of the past. The exhibition held at Saigon during December 1942 and January 1943 gave the School an opportunity, through the exposition of photographs, pictures, plans, maps and impressions of ancient inscriptions, besides collections of ethnographical, to demonstrate to the broad public its manysided and always valuable activities. A real good example to be followed by us in Thailand.

M. Pierre Dupont, well known from his excavations at Nakhon Pathom, is preparing an Old Khmer-French dictionary, and has written an article on an old document from the XVII century C. E. found at Wat Samboc (Kraceh) wherein is mentioned the despatch of ambassadors (from the king of Cambodia) to the redoutable Kings of Fire and Water.

One may wonder why ambassadors were sent from the relatively powerful Cambodia to such petty tribal chiefains. The explanation is perhaps the same as we see in Chiangmai and Luang Prabang where the kings could not ascend the throne without the assistance of respectively the chiefs of the Lawă and Khannu because these were considered as the real proprietors of the land? Did the first Funanite sovereigns conquer the land from Khâ tribes governed by divine kings, those of Fire, Water and Air? That may be possible.

During the work of cleaning out and reconstructing the vast Phra Khan ensemble there was found an enormous statue of the Buddha still
unfinished from the hands of the sculptor. We would remind our readers that such a standing image of the Buddha, on which the fashioning has just started, is found in Phra That Phnom in one of the niches of the circular gallery surrounding the giant Stupa. (3) M. Lévy has also studied the Lao cult of their deceased which culminates in the launching of illuminated floats on the river Mekhong. That is of course the old Thai festival of Loi Krathong. M. Victor Goloubew gave on 1st December 1942 a lecture entitled The Khmer art and its relations to the classical art of India. The learned lecturer said that the evolution in Cambodia of an Indian architectural type, the prasat tower, is inspired by the symbolic notion of the temple mountain, and that the rupestrian temples in India, such as those of Ellora and Mahāvellipur, were not, to begin with, considered as centres of a mystic world, but as the underground abodes of Siva and Parvati, his consort. The solid and well built brick sanctuaries of King Jayavarman of Cambodia (616—626 C. E.) show an astonishing likeness to the Chăm towers. This does not, however, mean that the Chăm architects were either the masters or the disciples of their Khmer confrères but that both have received the essential elements from Hindu architecture. The question is from what part of India did they derive it? M. Goloubew is inclined to search for it in Northern India in the plains of the Panjab and the Ganges where the art of using burnt or sundried clay was common long before the Christian era. The oldest example of such constructions is found in a bas-relief representing a many storied tower in the museum at Mathura, and the finest example of such a building is met with at Kafirkot in Kashmir.

May we be allowed to point out that in our review of Ram Ohandr Kale's "Ancient Monuments of Kashmir" (4) we have already pointed out the similarities and common traits which exist between the ancient Kashmirian and Cambodian temples.

There were also lectures, in the Cahiers under review, on the two forms of Buddhism which penetrated into Annam and Laos respectively. M. Lévy says that Buddhism has in Laos, which was not indianized, gone deeper and more completely into the population than is the case with the other peoples of Southeast Asia. (However, the Annamites were also not indianized, and by them Buddhism has not penetrated very deeply perhaps because of their ancestor worship and Confucian traditions?)

(3) Vide our Guide to Nakhon Pathom.
(4) Vide JSS. Vol. XXVII, 1934, pp. 121—126.
Professor Sueji Umihara's lecture on archaeological research work in Korea is also very interesting. According to his description the old tumulus-shaped stone burials, with their funeral furniture, should recall, in a certain sense, the ancient tombs of the Etruscans.

The Académie des Inscriptions et Belles Lettres has awarded the Thorlet prize to Professor Coëdès in recognition of his scientific work. This news will no doubt be received with satisfaction by the members of the Thailand Research Society of which this distinguished savant is an Honorary Member.

ERIK SEIDENFADEN.

Bangkok, 8th August 1943.
RECENT THAI PUBLICATIONS.

1. Stories of the Past, (นิทานโบราณคดี), by His late Royal Highness Prince Damrong, published in Thai for presentation on the occasion of the cremation of the remains of its author, March 1944, 479 pages, 1 plate.

A recent publication which has been generally approved and valued by the Thai reading public is the Nitan Boranakadi from the pen of one of the most distinguished statesmen and historians of the Thailand of yesterday. While spending the last nine or ten years of his life away from home, the Prince has not wasted his time in inaction and has written many volumes, a considerable amount of which still remain unpublished. As to the volume under review, the author explains in the preface that its contents is nothing but the truth; the incidents having been directly taken from the Prince's own experience. He has named it in a way which might perhaps be rendered as Stories of the Past, although word for word one might be more inclined to translate the title as Archaeological Stories, which in my opinion was not meant by the late author. The stories are full of information for students in all branches of knowledge, more especially the ethnologist, the historian, the archaeologist and the administrator. One might wish perhaps to add to these the politician, though personally I prefer not to make any pronouncement in that connection. They certainly bear witness not only to the wonderful memory of an octogenarian but also to his undiminished mental activity and keen acumen. A brief survey of these stories would lengthen this review into scores—literally—of pages and it is feared that the Editorial Committee would accuse the reviewer of taking up undue space in our valuable Journal.

Since however these reviews should serve the general reader—inclusive of those who are unable to read Thai—it would seem permissible to give a very short survey of some of the stories which might appeal to such readers. It is for instance told, for the first time it is believed, how the
National Library found a working nucleus and grew into its present proportions; how the Public Health service of the Government started out of modest beginnings and developed within a remarkably short time; how Chinese secret societies came into being in China and spread to adjacent countries with its faction-fights and secret murders until as far as this country was concerned it was put down. The historian and the archaeologist would be able to trace step by step how old sites of history and epigraphy—Chalieng, Utong, and the memorial pagoda erected to his fallen foe by King Naresuan—were searched for and identified at the instigation of the Prince, who was constantly travelling in his capacity of Minister of the Interior. The science of the Elephant is explained in a clear and intelligible manner in all its aspects—hunting, taming, and training as a military unit.

As an example of a short survey a chapter dealing with the institution of what has been known to the foreigner as the Second King may be thus summarised. It is recalled that to foreigners this constituted a distinctive feature of the Siam of those days. When Prince Damrong had audience of Queen Victoria of Great Britain the Queen asked him how true was the fact that we had two kings at the same time. That was in 1891 and the custom had been discontinued. It was a fact nevertheless that King Mongkut (1851-68) treated his brother Phra Phin Klao with regal honours though there were slight technical differences in etiquette such as in Court parlance and the regalia. Prince Damrong was told by a contemporary of King Mongkut's accession that the King accepted the Throne on condition that his brother shared regal honours and it was in conformity with this condition that the throne was offered jointly to the brothers. Instead of being installed as Prince of the Palace to the Front (Wangna), as heirs to the Throne usually were before him, the Prince was made a joint King reigning in the Palace to the Front. Prince Damrong cites as an example of such a procedure the precedence of Kings Naresuan and Ekathosaroth of Ayuthya, a widely known case. The Prince went however further back and found that when King Boroma Trailok came into possession of the northern Kingdom of Sukhothai he removed his Court to Pismulok where he reigned over the north and made his son, Phra Boromaraja King of Ayuthya. This latter succeeded his father in 1490, but remained in Ayuthya installing a younger brother as King of the northern capital of Pismulok. The younger brother afterwards succeeded his elder brother and transferred also to Ayuthya where modern historians know him as King Ramathibodi II. The institu-
tion of the Second King then, in the late Prince's opinion, was due to a policy of King Borom Trailoik to placate the northern state which he had just acquired. When the younger brother of King Mongkut however became a joint King, he was not required to govern a separate state but "reigned in the Palace to the Front." He was in fact the only Second King of the Bangkok dynasty, his predecessors of the first three reigns having been just Princes of the Palace to the Front as was also his son who was similarly installed when King Chulalongkorn came to the Throne.

The stories not only serve to while away one's time in an interesting and very instructive manner but also emphasize, without the author having to say so, how painstaking must have been the effort and determination of the Government of King Chulalongkorn in its uphill struggle to modernise the country by enforcing standards of public welfare as yet unappreciated by the contemporary Thai public who acquiesced merely out of respect for the King's person rather than of its own conviction.


This biography is more in the nature of a collection of official records in connection with the late Prince. Princess Poon, who, as everyone knows has been the constant companion of her father, explains in the preface the reason why this biography has assumed such a form. The idea of an autobiography was at first suggested to the late Prince by King Prajadhipok. The suggestion was at first taken up but after four chapters had been written Prince Damrong gave it up. He was too modest to write his own although he had been in the habit of writing perhaps a few hundreds of other people's biographies. Princess Poon's pleadings for the continuation of her father's autobiography only resulted in the suggestion that any one wishing to know about his biography need only consult the Royal Decree promoting him to the rank of Kromaluang in B. E. 2442 (1899) because that Decree came from the King's own pen.

The work as it is now presented consists of the document written by King Mongkut bestowing upon his new-born son the name of Diswara Kumar. Decrees of King Chulalongkorn promoting Prince Diswara Kumar to Kromamun Damrong and later to Kromaluang, the Decree of Rama VI promoting him to Kromaphya, and the Decree of the next King
promoting him to Somdeech Kromaphya. The above are supplemented by a record kept in the Government archives of the Prince's official life—just the usual facts and figures kept by the Government bureau of personnel. A report is also attached of his illness and death.

The late Prince's record, whether official or academic, is well-known and a real biography when it comes to be written should be a most interesting study of the career of a soldier-scholar who eventually turned out to be one of the most capable and successful statesmen with special adaptation for administrative organisation.


Though obviously not a recent publication, having been published nearly 20 years ago, this edition of the Sacred Canon of Buddhism has not, to our knowledge, received any notice by way of comment on the part of the Thailand Research Society. An obituary notice in the *Tham-macaksu* of one of the leading men in the Thai Buddhist Church, incidentally one of the most active editors of this publication, commented upon the fact that contrary to the first edition of 1893 this edition had not received any recognition from international scientific quarters. A complete publication of the Buddhist Canon can of course never be anything but epoch-making on account of its size, being much longer than the Christian Bible and the Hindu Mahabharata and Ramayana combined. This particular edition was commenced in 1925 and completed in 1928 in the charge of a Royal Commission of nine high dignitaries of the Thai Buddhist Church under the presidency of the then Patriarch, His Royal Highness Prince Jinavara, Lord Abbot of Rajabopit monastery. It was a memorial to the King's brother and predecessor, King Rama VI, who had just died. The public was permitted to join in the work of merit by way of voluntary contributions. This permission was readily responded to and the public which availed itself of it was cosmopolitan, a not inconsiderable number of subscribers of large sums coming from Cambodia where numerous pupils of the Thammayut sect testify to its widespread cultural influence there. King Prajadhipok headed the list with 10,000 bahts and by the time the subscription was closed—two years later—the amount had reached 563,737 bahts with 7311.71 bahts' interest accruing from Thai Government stocks. The expenditure in printing was over two hundred thousand bahts and the surplus was set aside under the care of the Government Treasury for further editions either of the Canon itself or the *Com-
mentaries and their Annotations (tika), or in fact any publication which may be considered from time to time as a classic for the study of the Buddhist Religion.

The Royal Commission took as its principal working text that edition of 1893. Foreign editions of Burma and Ceylon as well as available manuscripts and of course the publications of the Pali Text Society formed material for collation. His Royal Highness Prince Kittiyakara of Chandaburi, himself a Pali scholar, was chiefly responsible for the international connections of the Commission, of which he was an adviser. What the Thai edition of 1893 omitted to include, namely the Jātaka, Vimanavatthu, Petavatthu, Theragāthā, Therigāthā, Apadāna, Buddhavamsa, Cariyāpitaka of the Second Pitaka and the Patthana of the Third, were included in the present one. The set was complete in 45 volumes amounting to some twenty-five thousand odd pages octavo. Altogether 1500 sets were printed, 200 for presentation to learned institutions and persons in Thailand, 450 abroad and 850 sets to subscribers of upwards of 450 bahts.

The erudite work of editing and collating fell upon members of the Royal Commission. The Vinaya Pitaka (8 out of the 45 volumes of the set) was under the charge of the Most Reverend Somdech Phra Putthakosachan, then as now Lord Abbot of Wat Thepsirin. The Sutta Pitaka took up 25 out of the 45 volumes was distributed among several scholars. Its first Nikaya—the Digha—had for editor the above-mentioned Lord Abbot and took up 3 volumes. The Majjhima (3 vols) was edited by the Rt. Rev. Phra Ubali (then bearing the title of Phra Thammapiyoko) now Lord Abbot of Wat Po. The Samyutta was shared by the above (2) and the late Rt. Rev. Phra Thammawarodom (then bearing the title of Phra Thammakosa) who was responsible for the remaining 2 volumes. The Anguttara (4) was edited by Prince Jinavara, the President of the Commission. The last Nikaya of the Sutta Pitaka contained many texts edited for the first time in Thai characters having been for some reason or other omitted in the edition of 1893. Four of such books as well as two others, making up two volumes in print were edited by the Most Rev. Somdech Phra Vajira nanaavong, head of the Thammayut sect; the Jātaka (2) also new to this edition as well as two other volumes by the Lord Abbot of Wat Benchama, now ranking as the Rt. Rev. Phra Phrom Muni. Three volumes also of this last Nikaya were edited by the Rt. Rev. Phra Sasanasobhon of Wat Mongkut. The Abhidhamma Pitaka, 12
volumes in print, were completely in the hands of the late Most Rev. Somdech Phra Vanarat, Lord Abbot of Wat Mahathat and President of the High Convocation of the Buddhist Church.

Bangkok, 16th June 1944.

4. The Life of Huien Ts'iang =SuaSrrn<mu&k=ppru> translated by Kanglian Sibunruang, 392 pages 3 pl., 1 map & index, Bangkok April 2484 (1941).

This is another book which can hardly come under the category of a recent publication and yet cannot be passed over. According to Mr. Sibunruang the title of the work in Thai characters would be ประโยคชีวิต of the Rev. Pitakadhara of the Monastery of the Great Compassion during the Tang dynasty, basing it upon the Thai rendering given by Mr. Sibunruang in the introduction to the book. The work was published for presentation on the occasion of the cremation of the remains of its translator at Wat Thepsirin. It is prefaced as is usual with such souvenirs by a biography— with a foreword by Phya Anuman—of the deceased, a vivid sketch obviously written by those who knew Mr Sibunruang intimately. By profession a man of business, Mr. Sibunruang was also a man of culture. His Highness Prince Bidyalongkorn, whose advice and help is acknowledged in the book, contributes an appreciation of the translator's effort.

Mr. Sibunruang comes from a well-known Chino-Thai family, being a younger brother to the famous scholar and politician, the late Siew Hood Sang, a Bangkok resident of long standing who became a Minister in the Chinese Republican government of latter days. His literary inclinations have therefore sprung from natural grounds, though it has only materialised in this one and only work. The translation occupies 267 pages, or nearly three-quarters of the whole volume. It is true that it contains many inaccuracies of printing and clerical mistakes but I have been told that the publication was rushed through. The language of the translation is nevertheless easy and pleasant. A technical mistake in Court parlance occurs repeatedly that it deserves to be pointed out. A royal command is rendered as an omikara ไสนม. Now the word has its own peculiarity. It is an admitted fact that the traditions of the Thai monarchy have been influenced by those of the ancient Khmers. Although Buddhists, the Thai accepted this mystic Hindu term, employing it for the command of a crowned monarch. The so-called coronation in fact is not
the act of putting on the crown as in the West but the verbal acceptance of the invitation from the High Priest of Siva to rule after the latter had invoked the god to come down and merge into the king's person. Not until then does the monarch become entitled to give a command ranking as an anālaṇa. The significance of this ritual is no longer present in the mind of the Thai, but its outward semblance exists. It would seem therefore that the employment of this term for those monarchs in the "Western World" of Hiuen Tsang, even if they were Hindus, is hardly justified, for pristine Hinduism did not develop such a theory of Kingship as did the ancient Khmer cult of the Devaraj.

The theme of Hiuen Tsang's travels from China to India and back is well-known in international literary circles. According to Mr. Sibunriang it formed the gist of a historical romance translated into Thai from the Chinese many decades ago under the name of Sai Buw (Sai Bhu) and was a popular work with the Thai reading public of that generation. It was recently filmed and also formed the subject of a newspaper serial. Inspite of these connections with romance, the monk Hiuen Tsang was a real historical figure and his work still lives. An annotated translation of it into French was made in 1859 by Stanislas Julien and another into English 27 years later by the Rev. S. Beal under the title of Si Yu·Ki, Buddhist Records of the Western World. A disciple of the monk, Hwui-Lih by name, wrote a Life of him containing a full account of his travels. This work was translated by both Julien and Beal, and it was the version of the latter that was translated by Mr. Sibunriang who compared the French as well as the original Chinese ones with the English with the result that he was able to correct many mistakes in both translations.

Mr. Sibunriang's introduction to his translation is a valuable summary. After reviewing the materials which formed his sources of reference, the translator goes on to deal with cognate topics: Fa Hian, Sung Yun and I Tsung; a sketch of Indian history leading up to the rise of Mahayanaism with its pantheon, going on to its decline and fall owing to Islam competition and persecution and so on. The final section of this is highly useful for it enumerates the passages where the English translation went astray from lack of familiarity with the Chinese language. The Chinese idiom for instance of nan·ge consisting of nan·g, man, + be, horse, translated by Beal as man or horse, is really people when so combined. There are numerous others. The valuable historical and geographical footnotes from Beal, identifying Chinese names of Indian persons and localities with their Sanskrit equivalents are given with the addition of the
translator's own notes and form a useful feature as the Sanskrit names are more familiar to all. Another welcome feature is the full index at the end, the absence of which has marred so many valuable Thai publications.

Bangkok, 7 July 1944

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