The bronze ceremonial drum is an important piece of evidence of the culture of Dong Son. Many western antique collectors have long been interested in the collection of the drums. In 1632, Dr. Rumphius sent a drum unknown as to its origin to the Grand Duke of Taskent. In 1705, Dr. Rumphius wrote, the drum he sent to Grand Duke of Taskent came from Pedjeng in Bali. In 1893, the drum owned by Count Hans Wilczek, an antique collector, was shown to the public for the first time in Vienna. Count Hans Wilczek bought this drum in Florence. The drum was shown again at the International Fairs in Amsterdam. There were four frogs on the top of the drum. Dr. Anton Payer concluded that the drum originated in the Southern part of Asia. He had been ordained in a Thai monastery for many years and he had been very interested in doing a research on the drum. After that period there were many authors who had been engaged in doing research such as Dr. A. B. Layer, Dr. F. Hirth, Dr. J.J. M. Degruijt, Dr. W. Foy, Dr. Franz Heger, Dr. J. P. Foufzaer and Mr. H. Parmenter.

The results of their research can be summed up into two categories:

1. The area in which the drums can be found is very extensive area covering the southern part of Longlia to Indochina, Thailand and Indonesia islands.

2. Customs contributing to making of the drum, its ritualistic advantages and its reverence have been practiced since 1000 B.C. The diary of a King of Han dynasty revealed that the drums were confiscated from the Han. Other diaries noted that the drum makers and the drum believers were not Chinese but were those people who lived in the Southern part of China such as the Han, Leo and the Lolo. In 41 A.D., a Yuan, a Chinese Commander-in-Chief invaded these minorities and captured many drums. He then melted them down for the making of an alloy horse for the Emperor of China. In 226 A.D., Chong Beng took his troops to suppress a barbarous group headed by Beng Hek, which -- the historian claimed, were a branch of Thai people. Chong Beng had used many tricks to threaten and frighten his enemy. He had his soldiers beat the drums in front of a cave in order to intensify the echo sound and had the drums put under the water falls so that the water would fall over the drums making the drum sound, which would frighten the enemy. The Chinese called these drums Thong Kou (Candarin), Tang Row (Tae Chiew). The Han, the Leo and Lolo had continued to make the drums even though they were still subject to the power of the Chinese Emperor. The Han purchased alloy currency from Canton and melted it down for making the drums. In 300 A.D. Kuy or Chiao in Burma sent the drums to the Emperor of China as a tribute. In 1200 A.D., the Han in the Southern part of China were still using the drums. They used them as war drums and as an article for sacrificing. During the Tang dynasty, a drum was placed on the top of a
mountain and when a special meeting was to be held, the drum would be beaten to call the people to come to the meeting. In 1700 A.D. there were about 10 drums makers in Canton province.

Two drums were recently found in Yunan; one has, on the top of the drum, statues performing some ceremony, the other has a status of a leader with his subjects surrounding him. A small model of the drum was also found nearby these drums.

The Hmong in Vietnam still use the drum in the funeral ceremony. When the head of the family dies, a drum will hang above the head of the body and each time a meal is served for worshiping the body, the drum is beaten.

The Karieng in Burma and in the west part of Thailand still use the drum at the funeral ceremony to call the soul of the dead. The soul is believed to disguised itself as a bird.

The Karieng also use the drum as an altar-table upon which the oblation consisting of animal horns and meat are placed for worship. The Karieng have two kinds of drums, flat and low type. The Yang Daeng (Karieng) respect both types. The Yang Daeng do not make the drum themselves but purchase them from Thai, Yai and Inthas who in 1894 were still making drums.

It should be noted here that no two drums are the same size or decoration. Usually only one drum is made at a time, one may have frogs others do not have frogs. In Burma it is believed that the drum with the frogs is a male drum, the one without frogs is a female drum.

HOW TO MAKE A DRUM

(It will be hereby called a frog drum or a small green frog drum)

Translated from Burmese

1. At first a wooden drum is made according to the size one desires, and then apply a well mixed, 2 portions of yellow clay loam and 1 portion of chaff on the wooden drum.
2. Apply an equally well mixed clay and cow dung over the item 1.
3. When the item two is about to dry, smooth and even the drum with a piece of flat wood.
4. Clean the drum, don't leave any dirty particles on it.
5/ Apply wax on the drum evenly, one quarter of an inch should be its thickness.
6. Thin the wax to one eighth of an inch, then put the desired patterns made of carved wood on the wax.
7. Put the three overlapping frogs made of wax on the top of the drum.
8. Apply three layers of fine clay over the drum.
9. Apply on the drum an inch of equally mixed clay and cow dung.
10. Apply three inches of a mix consisting one portion of chaff and a portion of clay on the drum.
11. When the drum is dry, make holes under it so that the melted wax can pass through. Bake the drum until the wax comes off completely then put it in a very hot fire again until the drum is completely well done, just like baking earthenwares. Take it out of the fire while it is still hot.

12. Don't let the drum cool while the bronze is being cast.

13. Put 24 joys and 4 jabs of copper, 4 joys of lead, 15 jabs of tin into the crucible. When it is melted, cast the melted bronze into the holes under the prepared drum. Don't let the bronze cool while it is being cast. (a joy = 2 standard catty and 45 grams a jab = 4.4 grams).

14. After the bronze is cast, let it cool for 24 minutes then break the clay off the drum.

15. File off any uneven areas.

16. The advantages of owning a frog drum are it can be used for a funeral ceremony; for worship of the spirits; for local ceremonies; and for sale.

The drum of Heger 4 type plays an important role in the life of Kha La Hed, a tribal people now living in Laos. Kha La Hed do not make the drum but purchase them from the Nieng tribe. They will bury the drums in a place unknown to anyone. The drums are used only when there is an important ceremony. A Kha La Hed will collect as many drums as he can afford. When he dies without a descendent, his drums will be broken into small pieces. His relative and friends will bury the debris of drum with him in the grave. If a Kha La Hed possesses two drums and 5 water buffalos, he will be praised as a "Lem" which is an important title for a person who does not derive his title from the parents. The appointment to be the "Lem" is always accompanied by the following ceremony. At the ceremony two chickens will be used for worship and Tukti ritual will be performed i.e. tying the frogs on the top of the drum with the end of a sacred string and then beat the drum on the star pattern with a feather. Blood is being poured over the drum at the same time while the newly appointed Lem is praying for a blessing so that he would acquire more drums and buffalos. After having been a Lem for two months, he will have to perform another ceremony to worship the spirit of his ancestors. He will have to sacrifice one buffalo as oblation and invite his neighbours to join him in the ceremony.

After the harvest there will be a ceremony to worship the spirit in the drum and the souls of the ancestors. It is believed that when the souls of the ancestors hear the sound of the drum the souls will be happy and then the souls will then go to the watch posts. Any man without a drum will not have a chance to call in the souls of his ancestors.

It is said that when a Yang Daeng (Kharieng) is dead, his descendants or relatives will take a small piece of the drum and bury it with the body. There are seven drums in the Thai National museum some of which have small square holes about a centimeter in length and a centimeter in width cut out of them. Some of the holes are now patched up and some have been left as they are. The LaNa and Khamu still use the drum. The Khamu usually bury the drum
in the ground like the Kha La Med. When there is a famine or an important ceremony, they will take the drums from out of the ground and beat them at the ceremony. In Thailand the drums have been used since the Sukhothai period. At present they are used only in the royal ceremonies.

Some authors have said that the drum found in Dong Son is about 2262 years old. They found the bronze drum and a small drum model in a grave.

Some well-known authors have said that the drum should have been dated more than 2262 years, because in many places there had been a practice of burying personal articles with the dead body long before that period. When this practice become unpopular, artificial objects were needed to replace the real things. Dr. P. G. Funstein Kalenflace, a Dutch archeologist of pre-history has the opinion that the bronze drum of Dong Son culture would have been made before year 2262, or at least 100 years before that date. Professor Hynegledern shared the same view. Dr. Victor Joloubew was of the opinion that the first bronze drum was copied from a wooden drum covered with animal hide. In Vietnam, at the present time the drums are made very similar to the ceremonial drum. The only difference is that the present drums has two parts, one is made of basketry serving as a stand and the other is the drum itself.

Pre-historic drum has the following characteristics:

1. Upper section: This section is round and flat, the side is swollen out.
2. Middle section: This section is cylindrically-shaped.
3. Lower section: Like the upside down pan.

Dr. Franz Heger has grouped the drums into 4 types:

Heger type 1: The drum is very large. On the top is decorated with geometric pattern and sometimes has the pattern of many sickle-like boats on it. The front end of the boat is in the shape of the head of a bird and the rear end is in the shape of the tail. The drum usually has six boats on the top. In the boats are patterns of the helmsmen, oarsmen and passengers. Sometimes the passengers are warriors decorated on their heads with feathers. It is believed that the boats will take the soul of the dead to the heaven. In the center of the top of the drum is a pattern of a star with 3 points, 10 points, 12 points, 14 points or 16 points.

There are 7 pre-historic ceremonial drums in the National Museum of Thailand of which only 2 or 3 drums still have some distinct patterns.

The patterns on the rest are very blurry. They can be divided into the following groups:

The star with 10 points: Two were found in Outaradit province.
The star with 12 points: Two were found in Chavang district, Nakhonsithammarat province and one was found in Sahatsakhan district, Kalasin province.
The star with 14 points: One was found in Ubol province.
Around a star are many different sizes of circles, small and large. There are different geometric patterns in each circle such as ladder designs, oblique meander designs, patterns of small circles in a row with diagonal lines between them, patterns of birds flying counter clockwise, pattern of people with eyes and feathers on their heads, patterns of houses having the roofs like saddles and in the house a ceremony is taking place. There are four frogs sitting on the edge of the flat top of the drums. There is one drum in the pre-historic section in the Thai National Museum which belongs to Heger type 1. There is also a drum with apple snail statues on the edge of the top of the drum, but other drums do not have frogs or apple snails. It is believed that the drum found in Ong Ba cave must originally have had the alloy frogs. When the archeologists from the national museum were making a survey of the cave, Mr. Thieng Phromsi of Lae Shalaeb sub-district, Srisavath district, Kanchanaburi province showed them an alloy frog which he said he had been found in Ong Ba cave. The alloy frog shown by Mr. Thieng is the type that can be found on the drums. The areas in which the drums of the Heger type 1 can be found are the southern part of Tong-Kin, China, Thailand, Malaysia and Indonesia. Painting on a megaliths in southern Sumatra island shows a picture of a small drum being carried by a soldier on his back. The drum is used as a war drum. It has four pairs of handles and the handles are decorated with the cord designs. The painting of the houses on the megaliths are similar to the houses being built by Toradja in Palau, the houses in the middle part of Celebes, and the houses of Toba Batak in Sumatra. The oldest drums have similar patterns. In later drums the geometric designs have been included. The pattern of the birds on the later drums has become the pattern of a four legged dragon and composite animals which have a magical meaning. The pattern of man has also changed and has become a circle of feathers like the eyes and the wings of the bird. The pattern of bird on the drum looks like the real thing, i.e. a toucan, cattle egret and a pelican - like bird.

The drum of Heger type 1 can be divided into three categories:

**Group 1 a:** The body and the top of the drum have the patterns of man and animals. On later drums of this group the pattern of man was used as decoration.

**Group 1 b:** The body and the top have an animal pattern. But the pattern of man appears only in the body (such as Nelson drum, Lao drum and Stockholm drum).

**Group 1 c:** The body and the top of the drum have geometric designs. The only living animal pattern on the top of the drum is that of the birds.

The decorative patterns of group 1 c are as follows:

**A. Comb-tooth pattern** is the pattern of many straight lines pointing the ends to the center of the top of the drum. This pattern can easily be found. (See pieces of the drum found in Malaysia, Semarang, Banjumening, Dieng Plateau in Indonesia, Dong Son and Battambang). Other alloy articles such as the alloy buckets and the alloy celts found in Honan, Yunnan and Tong-Kin also have comb-tooth pattern. Such patterns date back to 4th or 3rd century B.C.
B. The saw-tooth pattern this pattern was found on the pieces of drums found in Yunnan and the drum from Gaio-tat. Much of this pattern was found in the earlier models (Nelson drum, Lao drum, Hong Ha drum, Ngo Xlu drum, Folio drum and Vienna drum). As a matter of fact the saw-tooth pattern can be easily found on the handles of the dippers in Han dynasty period. But this pattern was unknown before the Han dynasty. Dr. Bernard Karlgren has the opinion that such a pattern was often used on the alloy articles in the Chiew dynasty.

C. A row of small circles connected with tangents pattern this pattern is often found on the drums in group Ic. The drum found in Dieng Plateau has only rows of circles without tangent lines. The Panchumas drum has only rows of circles with a dot in the center of each one but there are no tangent lines connecting the circles. There are two rows of concentric circles with a dot in the center of each one as on the Banjumening drum, Battambang drum, Tembeling drum and Klang drum. Sometimes the circles are without the dots. The drum found by Janse in Dong Son is decorated with rows of circles connected with tangent lines. The drums with concentric circles and tangent lines are Banjumening drums, Samarang drums, and the drums found in Dong Son. The concentric circles with the tangent line of the drum to which Dr. Goloubew referred is an important decorative pattern of Dong Son arts in the earlier and later period. The earlier models would have this pattern, (compared with Nelson drum, Lao drum, Hong Ha drum and Ngo Xlu drum).

D. A star with pattern between the points: The drum with a star is found in group Ic. It should be noted that these stars are not different from one another. The stars of group Ia and Ib have more points than that of group Ic. When we see the pattern of the star and the pattern between its points we can say that there is some connection between the drums of the earlier model and this group.

E. The pattern of the flying birds: Dr. Karl Gren said the flying birds on Lao drums are very similar to the pattern of the flying birds in the tiles found in a grave near Kin-tsun in Lo Yang areas of Ho Nan which dates between 4th or 3rd century B.C. This pattern has the flying birds. The pattern of the necks and heads are in the profile. The picture of the tails and the wings is that of the backview. The drum in group Ic also has the pattern of the birds but the only difference is that the bird has no legs.

The pattern of the flying birds of the earlier drums, the drums in group Ic and the drums in group Ia in the Victoria and Albert Museum in England as explained by Dr. Hagel and Dr. A. J. Koop are very useful for further research of the ceremonial drum. Dr. Heger said he saw these drums in 1835 but he did not know that there was an engraving on the top of one of the drums which read "made on the 15th in the month of the eight Chieng the fourth drum" in 199 A.D. The pattern of the bird on this drum is very rough compared with the pattern of the birds on the drums in group Ia. The pattern of the flying birds on Battambang drum, Klang drum, and Ojanse drum is very similar to that of the drums in the earlier period, i.e., Vienna drum, Folio drum. As far as we know the Ojanse drum was found in a grave in Dong Son, Tong-King. According to the report of Janse, this drum was found on the layer of black soil above the layer of the oldest
soil in Man dynasty period, in the beginning of Christian era. When we observe
according to this theory the drums found in M alaysia should be older than the
drums in Victoria and Albert museum. When we see the fine pattern with the
pattern of 2, on the Battambang drum and Kl ang drum those must be older than the
Oj ane drum found in Don Son which would have been made in the first century.
The drums found in M alaysia would have been dated in the second century.

Heger type 2: The drum is very large and its top is swollen. There is a star
with eight points in the center of the top of the drum. The pattern on the drum
is very fine and is mostly in the geometric design. Some have two pairs of
handles.

Heger type 3: The drum is of medium size. A smaller one is also available. This
type is of the Yang or Karieng. The star in the center of the drum has 12 points
and has four frogs in four directions on the edge of the drum. It usually has
many frogs sitting over one another. The pattern on the body of the drum is
very stylized. It has small and fine beautiful handles.

Heger type 4: The drums is also called Chinese type. It has the Chinese
pattern. In the center of the top of the drum has a star with 12 points. It
does not have frogs. There are two pairs of handles on the middle section of
the drum. This type of drum can be found in veranda of monasteries and in the
monasteries in China.

Professor George Cedes conjectured that the oldest drums can be found in
areas from China to Indonesia. As for the second type the Loung in Vietnam
are still using them. The third type are mostly found in the Thai, Laos,
Burma area. Persons who have studied the drums have classified the characteristics
of the drums which can be divided into four groups they are:

Group 1: The drum has three parts. The first part is like a funnel or a pan.
The second part above the first part is like a bucket or a cylinder. The third
part is like a lemon cut in one half. The drums of this type are mostly found
in the southern part of China, Thailand, Malaysia, Java island, and the island
of Bali.

Group 2 and 3: The top of the drums expand out of the body and the body looks
like an upside down bowl. It has three parts like that of group 1. These
types are still being made in the southern part of China and Thai Yai area. On
the top of drums of this type are usually four statues of frogs sitting in four
directions, one or two in a direction, or three frogs on top of one another in
one direction. It is believed that the type which has three overlapping frogs
in one direction is older than the drum that has only one frog in one frog in
one direction.

Group 4: The top of the drum is not expanded out of the body and is shorter
than the drums in other groups by almost one half. This type is made in China
and it is still an article for commercial purposes. Of all these groupings, the
drums in group 1 are the oldest.
The Dong Son culture produced the first true Indochinese works of art which we know. They are mainly items of bronze tomb-furniture or religious objects. Dong Son is the chief site in the Ton-Kin plain, from which the whole culture takes its name. But many sites, ranging in date from about 500 B.C. to the second century B.C., stretch down the coast of Annam, (Vietnam) and perhaps into Indonesia. In Ton Kin it seems probable that Chinese influence, political as well as artistic became progressively stronger, until the Chinese Han dynasty conquered Ton Kin in 111 B.C. making it in effect a Chinese province producing a provincial version of Chinese Art. Until then the Dong Son people had been producing a wealth of idiosyncratic art, including utensils, weapons, bowls, pots, ornaments of bone and shell, and especially magnificent large bronzes.

These, it seems, were produced by the standard Chinese bronze-founder's technique of incising the patterns on the negative mould into which the bronze was to be poured. Indeed, much of the ornament suggests a simplified and broadened version of Chinese ornament of the period of the Warring States.

The most interesting and important of these Dong Son bronzes are several huge drums which seem sometimes to have been buried with the dead.

On the rim there may be plastic figures of frogs and other designs occupy the outer section of the disks. The drums were probably used as the magical implements of the rain-maker, an important official in that region of long-burning drought. The beating of the drums would invoke the monsoon thunder; frogs are the creatures whose joy in the water makes them symbols of rain. But the iconography goes further. On some of the drums are relief designs of dancers; on at least one is a design of a boat carrying human figures. The dancers and the boat's passengers seem to be wearing head-dresses composed of large, carefully trimmed feathers, and some carry an axe-like weapon characterized by a deep V-cleft in its top edge. It is interesting that some of the Nagas in the hills of Assam (Vietnam) which form the westernmost extension of the Yunan massif still today wear ceremonial head-dresses of trimmed Toucan Feathers; until recently the Konyah Nagas used an obsolete ceremonial "Dao" (a kind of combination of axe and sword) called the Hilemnok, which also had a deep V in it's top edge.

Perhaps the Dong Son dancers represent the usual participants in the rain-making ceremony which introduced and encouraged the monsoon. The boats passengers may represent voyagers to the Kingdom of the Dead - a common myth in the Eastern islands.

After the Chinese conquest of Ton Kin Chinese art gradually obliterated all the idiosyncratic Dong Son elements. Tombs of Chinese type began to appear, with provincial versions of Chinese designs of the Han, T'ang and Sung dynasties. Chinese administration pushed on down the coast where for a time it was held at bay by the Hinduized Cham kingdom in southern Annam. For a time further Chinese colonization remained in abeyance, held off by the strength of the Kmer civilization. But by the 16th century the sinized Buddhist Vietnamese had virtually obliterated all vestiges of the classical indanized civilizations of Cambodia Laos & Siam.