

Traditional writing system in Southern India — Palm leaf manuscripts.

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Introduction

Palm leaf manuscript is one of the oldest medium of writing in India especially in Southern India. It is also the major source for writing and painting in South and Southeast Asian countries including Nepal, Sri Lanka, Burma, Thailand, Indonesia and Cambodia (Agrawal 1984:24). Though palm leaf writing was practiced since the ancient times its precise origin is still unclear. Agrawal ascertains,

“It is difficult to say exactly when the palm-leaf first began to be used for writing. There is no extant of palm-leaf manuscripts in India before the 10th century. However, the palm-leaf was definitely in use much earlier than this since it is mentioned as a writing material in several literary works and its visual representation can be seen in several sculptures and monuments. It is almost certain that the earlier manuscripts have been completely destroyed owing to the tropical climate of the region” (Ibid 24-25)

Further Richard Salomon ascertains the existence of palm leaf manuscripts and other materials in the following passage. “Before Asoka, writing was probably used principally, if not exclusively, for economic and administrative, as opposed to literary and monumental, purposes; perishable materials such as palm leaves, tree bark and (according to Nearchos) cloth, which have little chance of surviving the rigors of the Indian climate, were used. Thus, according to this view, we need not be surprised that no early specimens of Indian writing have survived and their absence does not prove that they never existed” (Salomon 1998:14-15).

The magnitude of this medium is such that its composition and method of writing has remained unchanged right from

its known existence. People still prepare and use palm leaf manuscripts the way our ancestors used centuries ago.

Types of palm leaves

There are many varieties of palm-trees. However, the leaves of only a few have been used for writing. The most widely used were (Agrawal 1984:25-27):

1. *Borassus flabellifer* Linn (the palmyra palm)
These palm trees grow in a dry climate. The leaves of the palmyra palm are thick, fibrous, initially strong and flexible, over time its flexibility decreases. They are also prone to insect attacks.
2. *Corypha umbraculifera* Linn (talipot, fan palm)
The talipot palm needs wet climate and abundantly grows in moist coastal areas. The leaves are soft, light coloured when dry and flexible. The earliest manuscripts are on this type of leaves. They remain flexible for a long period. The leaves are also mainly used for making fans, mats, umbrellas, baskets, thatching, roofing and so on.
3. *Corypha taliera* Roxb.
The *Corypha taliera* are strong palm trees. Its leaves are slightly brown in color with black spines. They are also thick, non flexible and prone to insect attack.

Of the three varieties of palm leaves, those of the talipot are the most smooth, delicate and supple. Its fibers do not damage easily and are more resistant to decay. In India all the varieties are used for writing.

Preparation and preservation of palm leaf manuscript

Palm leaf manuscripts are found in linear horizontal format this is basically due to the natural size of the leaves. Normally,

length of the leaves vary from 15cm-60cm and width between 3cm—12cm. Their dimension depends on the available size of leaves. Before writing, the palm leaves has to be processed and prepared to make it suitable for scribing.

Preparation

There are several ways of processing palm leaves, these methods differ from region to region. In South India, different method is adopted whereas in Orissa and other Southeast Asian countries different technique is adopted. The basic method of palm leaf preparation for writing is as follows (Patnaik 1989:16-17):

Palm leaves are first cut from the trees before they could dry up and become brittle. Only a half opened young shoot of palm leaves are suitable for making manuscripts. These are cut into required sizes and then boiled in water to the required temperature in order to render them soft. The softened leaves are then dried in the shade or mild sunshine. The unwanted middle ridge is removed from the main leaf. The desired portion is pressed, polished and trimmed to size. Then holes are made on either side of the leaves with a red hot wire. A cord is passed through the holes to hold the leaves together. Two wooden planks of leaf dimension are then placed above and below the manuscript as covers to protect the leaves and stored in dry place (Fig 1.1). After sometime the leaves are taken out which by now would have become flat and smooth for writing. The total number of leaves in a manuscript depends on its content.

To the above descriptions Agrawal further adds on its binding system,

“Palm leaves could not be bound like a book. Therefore, they were stored between two wooden panels that were slightly larger in size than the leaves. These wooden boards were sometimes painted or decorated with ivory and mother of pearl inlay work. To keep the leaves together, holes were punched in the leaves: in the centre, if the leaf was small; otherwise at either end of it. A cord was passed through the

holes and bound around the manuscripts to keep the leaves in position. The wooden holders were polished with insecticide oils prepared from lacquer and minerals. Illustrations are also seen on the cover boards, the drawings were based on the contents of the book. Finally, the bundle is wrapped in cloth to keep it free from dust” (Agrawal 1984:34).



Fig 1.1: Wooden planks slightly bigger than the leaves dimension are placed above and below the manuscripts as a protective cover. A cord is passed through the holes made to binds the leaves.

Preservation

Palm leaf manuscripts are organic in nature and are susceptible to different types of deterioration. If not preserved properly they are subject to physical damage and decay. Some of the most common deteriorating agents are climatic factors (e.g. variations in relative humidity and temperature), light, insects, constant handling and adverse storage (Ibid 36). To prevent from such defects, palm leaves are treated with special preservatives. T. Ganesan states , “At present, to preserve palm leaves lemon grass oil is applied to each leaf, then dried and kept under air condition at low temperature. Each state and region has its own indigenous method of preparing, writing and preserving the palm leaves.” Few methods to conserve manuscripts are (Agrawal 1984: 43-48):

1. The use of natural herbs like sweet flag (ghorabach) or margosa leaves with the manuscripts to keep insects away.

2. Application of citronella oil, camphor oil, or lemon grass oil on the surface of the leaves to keep it flexible. This prevents physical damage due to brittleness.
3. Fumigation with thymol vapors helps to prevent fungus
4. Fading of ink is restored by applying carbon black mixed with oil to the leaf.

Writing system

Traditionally, palm leaf writing has been passed on from generations to generations through scholars and scribes. It was a customary practice that whenever a palm leaf decays, its contents are transferred on to fresh new leaves. And that was how our written ancient literature was passed on to the newer society. John Samuel says, “Lifespan of a palm leaf manuscript is about 300-350 years. The present manuscripts are mere copies of the earlier manuscripts which are also replications. Manuscripts have been copied from generations to generations by a set of people. Each time a manuscript gets old or decays it is transferred on to a new leaves, these new ones are then preserved. The old manuscript is either burnt in ghee or thrown into the river”.

Writing on palm leaf is a skilled activity which requires patience, practice and training. A common man cannot easily take to writing on palm leaves. In olden days, writing on palm leaf manuscripts was practiced as a profession by some, they were called lipikaras – copyist. There are even references of families who belong to the generation of palm leaf manuscript writing. T. Ganesan refers ,
 “In olden days only a section of people specialized in writing on palm leaves. Knowledge in written form was passed on by copying the text from old manuscripts to new manuscripts. At present, very few people know the technique of writing on palm leaves; the tradition has come to an end. The practice doesn’t exist as people no more understand what’s written on the palm leaves. Some even throw the manuscripts in the river without making a copy of it. Thus some of the most valuable resources and knowledge are lost forever”.

In general, there are two main techniques of writing on palm leaf manuscripts (Agarwal 1984:31). They are:

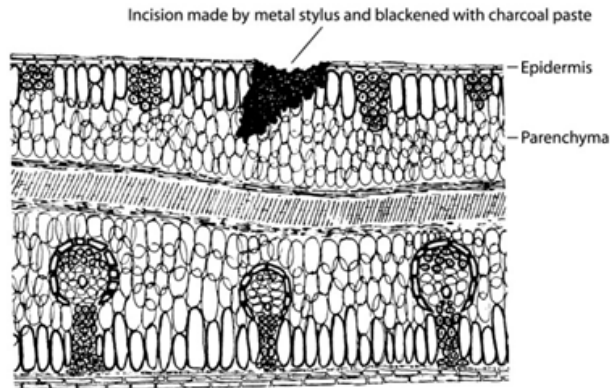
1. Writing with a pen or brush as done on paper (Fig 1.2), normally seen in North India.
2. Writing by incision with a pointed metal stylus (Fig 1.3). This method is predominant in South India. Tamil palm leaf manuscripts are normally written using this method. The current research is based on this type of Tamil manuscripts.



Fig 1.2: Illuminated palm leaf manuscript of 18th century from Eastern India. The text is written using brush and ink.



Fig 1.3: Tamil palm leaf manuscript written using incision with pointed metal stylus. On the right is a cross section of the written palm leaf showing incision and deposition of black powder.



In the method of writing with ink, a brush or a reed pen was used. The writing was done in the usual manner as with pen on paper. Since palm leaf is less absorbent than paper, the ink remains on the surface. This method was mostly prevalent in North India.

In south India, incision with metal stylus (Fig 1.4) was the most common method of writing. Even within the incision method there are two ways of scribing.

a. In one method, the stylus is held in the right hand, at a fixed place on the leaf. The leaf is held in the left hand and is moved backwards and forward to make the incision (Fig 1.5). In this method, both hands are actively involved in the writing process and their coordination is important to scribe letters. In right hand, the stylus is held upright between the ring finger and last finger. The left hand, apart from holding the leaves, also controls and directs the stylus using the thumb nail. Scribes who write on palm leaf usually grow their left thumb nail through which a hole is bored to hold the stylus. Alternately, some people make a groove in the nail to hold the stylus. To write, the stylus is placed over the groove of left thumb nail and incisions are made letter by letter. As the writing progresses the leaf is moved leftwards using the left hand. At times, the holes made on either side to bind the leaves get bigger with frequent use. Therefore, a sufficiently large margin had to be provided around the holes (Fig 1.6).



Fig 1.4: Various types of metal stylus were used for writing on palm leaf manuscripts.



Fig 1.5: Method of writing on a palm leaf manuscript. Right side image shows the groove made in the left thumb nail to control the stylus while writing.



Fig 1.6: Holes punched for binding the leaves are the only elements which breaks the text flow. A sufficient margin is given around it as they expand due to usage.

During the process, the left thumb plays a crucial role in supporting and directing the stylus. It controls the stylus to properly align and position the start of next letter. Perhaps, this determines the letter spacing and some cases even line spacing. The extent at which the left thumb nail moves is one of the factors which determine the size of letters. To draw

an analogy, its movement could be compared with the type caster of Monotype type machine where the matrix moves in x, y direction to cast individual letters.



Fig 1.7: Another method of writing on a palm leaves where the leaves are held on the thighs and scribed using stylus. In this method, the stylus is held like a normal pen.

b. In the other method, writing is done by moving the stylus. Similar to the previous method, the stylus is held in right hand and the leaf in left hand. In this method, the writer generally sits on the ground and places the leaf on the right

knee, using it as desk. He then scribes with the stylus, moving it from left to right (Fig 1.7). Sometimes, the leaves are placed on the desk and inscribed like writing with the pen and ink in normal books.

After incision, the letters may not be visible to read (Fig 1.8). Therefore, lamp-black or coal powder mixed with oil is applied on the leaves so that the letters become noticeable and read more easily. The excess mixture is then wiped off with a cloth. Sometimes, fresh green leaves of a particular tree are rubbed on the palm-leaf so that the green juice of the leaves gets deposited in the engravings rendering it visible. Since correction or overwriting was difficult, great attention was required to make each leaf error free. The palm leaf manuscripts also had illustrations, either incised or painted with a brush. The illustrations are incised with the stylus in the same manner as writing.



Fig 1.8: Left image shows a manuscript after incision. Initially, the letters may not be noticeable to read. Therefore, to make it visible a paste of charcoal powder mixed oil is smeared on the manuscript and wiped off. The black mixture gets deposited on the grooves making the letters stand out like the right side image.

Image Courtesy: Government Oriental Manuscript Library, Chennai, French Institute, Pondicherry, Kuppuswami Research Institute, Chennai and Pulavar Chockalingam, Tanjore

References

- Agrawal, Om Prakesh. Conservation of Manuscripts and Paintings of South-east Asia, London: Butterworths & Co Ltd., 1984.
- http://www.kamat.com/database/books/kareducation/palmleaf_texts.htm (last visited on 20.06.09).
- Patnaik, Durga Prasad. Palm leaf Etchings of Orissa, New Delhi: Abhinav Publications, 1989.
- Encyclopedia of Tamil Literature, Volume I, Chennai: Indian Institute of Asian Studies, 1990.
- Kesavan, B. S. The Book in India, New Delhi: National Book Trust, 1985.
- Ove, K. Nordstrand. "Some Notes on Procedures Used in the Royal Library, Copenhagen, for the Preservation of Palm-Leaf Manuscripts", Studies in Conservation, Vol. 3(3), 1958, pp. 135-140.
- Salomon, Richard. Indian Epigraphy, New Delhi: Munshiram Manoharlal Publishers Pvt. Ltd., 1998.
- Sambandan, M. S. Acthum Pathippum, Chennai: Manivasagar Publications, 1997.