

# Writing In Ancient India And Writing Materials - In The Study Of Manuscripts

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*Abstract: Separated by time and place the art of writing emerged. The root 'likh' found in Atharvaveda and TaittiriyaSamhita. The word pustaka (written book) found in Kautilya Arthashastra. Writing created a permanent record of an idea or information. King Ashoka's inscriptions (3<sup>rd</sup> century B C) are the earliest positive evidence of a full-fledged script being in practice in India. The inscription was written in the two scripts Brahmi and Kharoshtri.*

*Sanskrit was the most popular medium of instructions for a long time. The primary aim of the manuscripts was to preserve knowledge. Manuscripts were copied in the local script and in those that evolved over time. Two significant varieties of scripts that emerged from Brahmi are the Northern and Southern Brahmi. Southern Brahmi led to the scripts of the Dravidian languages.*

*Different materials are used as surface for writing such as Paper, Palm leaf, Bhoorjapatra etc and metals like gold, silver to that of non metals like stone, leather, ivory and shell etc were used. Pen or stylus was used to incise the top layer of the leaves so that both sides can be used. Dyes made from plant products were used as ink. Haratala (yellow pigment) used as ink for removing mistakes and Hingolaka (red colour)- used to underline important points.*

*Scribe or professional experts were engaged to maintain and write state document as well as the account book. Sanskrit was the most popular language. When a manuscript is lost the work is permanently lost for future generation. Manuscripts have specific life time. Manual copying is the most popular mode to preserve it. Kings had many scribes who would routinely copy manuscripts every 200 years. Lamination, photo copying, microfilming and digitalization came at later period.*

*Study of writing is a very vast field. Missing link of culture and history will be made through Archeology and Literary work. Clear evidence for writing in ancient India is available from 5<sup>th</sup> BC. Inscriptions and manuscripts in ancient India found to be written in two scripts – Brahmi and Kharoshtri. Earlier to Brahmi existed Indus script and its Evidence is given by S R Rao through the Study on Harappan and Dwaraka Harappan scripts.*

*So the present paper focus on all the aspects of writing evidences seen in ancient India and the materials used for such writing.*

**Keywords: Manuscript, Brahmi, Script, stylus, materials, palm leaf etc**

## I. INTRODUCTION

Oral transmission was the most popular mode of knowledge diffusion in ancient India.

Ex – Veda – handed down from generation to generation

Separated by time and place the art of writing emerged.

The root 'likh' found in Atharvaveda and TaittiriyaSamhita.

The word *pustaka* (written books) found in Kautilya Arthashastra.

At an estimation 1 billion manuscripts are available and out of it 1/10 are traced. Only ¼ th publications are from India. So the knowledge present in ancient India need to be preserved. It can be stated easily as "Yogakshemam"

*Yoga kshema - Alabdasyalabhamyogaha / Labdasyaparipalanamkshemaha //*

Materials such as clay, tablets, wood, copper plate, cloth, silk etc were used for writing. Most popular were palm leaves (taala and sritaala were used in south India and were resistant to pests) birch bark and papers (at much later date). Sanchi a kind of palm leaf was used in Assam. Papers started from 10<sup>th</sup> century A.D after the advent of Muslim rule. Cotton clothes were used in Karnataka to write accounts and official papers.

Pen or stylus was used to incise the top layer of the leaves so that both sides can be used. Dyes made from plant products were used as ink. Scribe or professional experts were engaged to maintain account book, write state document and account book. Sanskrit was the most popular language. *Bramhi* was the script of choice. *Bramhi* later developed into two streams

- ✓ *Nagari* and regional script as Gujarati, Bengali etc
- ✓ South Indian script such as Kannada, Malayalam and Tamil.

*Grantha* was the most popular script for writing Sanskrit in non Sanskrit region of South.

The manuscript (hand written) material was stored in personal libraries of kings, chiefs, at universities, temples, *viharas*, *mutts*, *pathashala* and in government libraries.

The famous centers of learning *Taxila*, *Nalanda* and *Vallabhi* had several thousand books were there in their collection. In this concern *Shankara*, *Ramanuja* and *Madhva* established their centre in *Shrageri*, *Melkote* and *Udupi* respectively.

During Muslim rule several manuscripts translated in to Persian. Several manuscripts are translated in to other languages such as Tibetan, Chinese, Arabic, Syrian, Japanese and Latin. Famous travelers like *Huan Tsang* and *Itsing* took back copies of Indian manuscripts with them.

For the nation that has more than 1000 of years of literary history it is sad that only five lakhs of manuscripts have survived on sought of time and destructive agents.

When a manuscript is lost the work is permanently lost for future generation. Some of the well known work contributes only 2% of available literature on manuscripts.

Manuscripts should be stored in ambient temperature, fungus should not grow on them or they become dry or brittle. Some libraries use specially prepared medicinal oils to coat the manuscripts so that they are not attached by insects.

Manuscripts have specific life time. Manual copying is the most popular mode to preserve it. Kings had many scribes who would routinely copy manuscripts every 200 years.

Lamination, photo copying, microfilming and digitalization came at later period. National mission for manuscripts (NMM) has embarked on ambitious project of digitalization of thousands of manuscripts that can be made available on internet.

Collection of manuscripts will be beneficial only if the contents are made available. The catalogues are made either in card form, book form, sheaf form or CD Rom's that can be assessed easily by researcher. It should contain details such as date, accession number, title, author, name of commentary/ commentator, material, language, script, size, number of leaves/ pages, source and remarks. Theodor Aufrecht of

Germany created the catalogues catalogorum or catalogues of catalogues after studying the catalogues of manuscripts.

The catalogues catalogorum (work on which is still progress) lists the entire collection of Sanskrit Manuscripts in the whole world that is published in 3 volumes (1891, 1896, 1903). A.C. Woolner, Vice chancellor of Punjab University came up with an idea of New catalogues catalogorum in 1935 (it has additional information such as Buddhist and Jain manuscripts).

The scribe of ancient time also served as redactors besides manually copying texts.

Two method of editing is broadly followed 1. Presenting the text as original as possible (lower criticism).- he may suggest emendations after careful consideration of internal and external evidences.

The editor lists several factors such as catalogue number, size of material, date and name of scribe, orthographic peculiarities, style of writing, marginalia, condition of manuscript, details of translation if available in his document. Also mentions the principles used for editing, those rejected would be mentioned as foot note called as critical apparatus.

Editing the text taking in to account the author and the other work in the field (higher criticism). Editor discusses the nature of work, significance, brief history of author, text and place of text. A computer based palm leaf manuscript editor has also created by Center for Development of Advanced computing, Bangalore that helps searches in manuscripts that are available in various scripts. It also helps in collation of various versions of texts collected from different sources.

Manuscripts are the intellectual wealth of India. General awareness and their importance should be impressed upon public so that lay men who have manuscripts in their possession should come forward and offer them to appropriate collective agencies that can put them to good use.

Training of personnel in specific area of manuscript ology and establishment of organization that will help the spread of the knowledge should be under taken war like urgency to preserve our own ancient intellectual source of knowledge.

Manuscripts on medicine ranges between 20,000 – 1,00,000. Several of these are now in institutions such as, Oriental Manuscripts Libraries, Indological Research Institutions, Universities, Mutts and Archives; many are still in private collections. Also available in foreign libraries in UK, France, Germany, USA and in Asian countries like Srilanka, Nepal, Burma, Bhutan, China and Thailand. No detailed and accurate data about the number, extent and distribution of the Medical Manuscripts of India<sup>[2]</sup>.

## II. LANGUAGEWISE ESTIMATION OF MANUSCRIPTS

The following chart explains the language wise estimation of manuscripts.

- |                                |     |
|--------------------------------|-----|
| • Sanskrit                     | 67% |
| • Other Indian Languages       | 25% |
| • Arabic/Persian/Tibetan, etc. | 08% |

## MANUSCRIPT: A DEFINITION

A document bearing some cultural content, produced once and for all by hand (without *Machine Process*) which is 100 / 75 / 60 years old and should be Non-Archival material is known as manuscript.

Manus means written by Hand + script means writing = Somanuscript is Whatever written by the hand which has thought behind it is called as manuscript. Anything written by hand as painting, writing on coins and inscriptions etc are called as manuscripts. In manuscripts punctuation are not present and will be continuously written.

## WHY TO STUDY MANUSCRIPTS?

Missing link of culture and history will be made through Archeology and Literary work. Ex –

- ✓ C Ramashastry – Koutilyarthashatrain 1909 gives missing link of history of Mourya and defeat of Nanda dynasty documented
- ✓ Chaturbhaani (bhanavidushaka) by shringarahara by R Namboodari pad – Explores Gupta period. In manuscripts past history is stored.

## LITERARY WORK

The following examples suggests how missing link can be provided by the study of manuscripts.

EX – 1. Shataprashnottari – Advitavedanta, which was studied 230 yrs back by Ayodhyaprasad Bhide (Questions of students and answer of teacher) and provides the missing link of Advaita Vedanta.

2. Anandakavya/ vilomakavya / gatanugatakavya – It is called so because from Right to Left and Left to Right has different meaning. Sopajateeka is auto commentary – autograph copy, was studied by R G Bhandarkarin 1884 and it has many words and each word has 4-5 meanings.

## MANUSCRIPT: HERITAGE

Manuscripts are Our “collective conscious”. Our past has prolonged itself into the present. Loss of manuscripts is considered as National suicide

Manuscripts are the intellectual wealth of India. General awareness and their importance should be impressed upon public so that lay men who have manuscripts in their possession should come forward and offer them to appropriate collective agencies that can put them to good use. Training of personnel in specific area of manuscript ology and establishment of organisation that will help the spread of the knowledge should be under taken war like urgency to preserve our own ancient intellectual source of knowledge.

## WRITING IN ANCIENT INDIA

Study of writing is a very vast field. Writing in various styles or decorative lettering called as calligraphy and Study of writing of ancient times is palaeography. Thus history of alphabet is strictly the field of palaeography. History is needed

to differentiate epigraphy (study of ancient inscriptions) from manuscriptology.

Deciphering is more marked in epigraphy which is close to palaeography (study of ancient forms of writing & deciphering it).

## EVIDENCE OF WRITING

Clear evidence for writing in ancient India is available from 5<sup>th</sup> BC. The Ms available now are not generally older than 600 years. Only in few cases it may be 1000 years

Ex – Eran coin found in Eran of Jabalpur district counts at 4<sup>th</sup> BC; Piprahwa vase inscription discovered in Basti district (UP) counts at 487-483 BC; Mahastana stone inscriptions found in Bogra district (Bangladesh) is pre Ashokan (320 BC); Badli inscriptions found in Ajmer district is assigned to 483 BC; Sohagaura copper plate inscriptions are found in Gorakhpur district (UP) in 4<sup>th</sup> BC.

## ANTIQUITY OF WRITING IN INDIA

Inscriptions found to be written in two scripts – Brahmi (Distributed all over the country) and Kharoshtri (Northwest part). Earlier to Brahmi existed Indus script and its Evidence is given by S R Rao Study on Harappan and Dwaraka Harappan scripts.

## LITERARY EVIDENCE – INDIAN SOURCE

*Smriti* 5<sup>th</sup> AD attract high antiquity to scripts. Kalidas considers Alphabet as the path way leading to the ocean of learning. In *Koutilya Arthashastra* (4<sup>th</sup> BC) gives evidence about establishment of writing. It states as a time was set to do correspondence (*patrasampreshana*) – for such professional scribes were appointed in Royal court to write Royal edicts and charters. Apart from it Record room (*Nibandha – pustakasthana*) were evident from it. Secret codes (*sanjalipi*) was developed. Calligraphy (*Aksharakalaa*) art of recitation (*paathyakalaa*) was used for *ganikas*, servants and stage actors. *Natyashatra* tells about *lekhaka* and *ganaka* to record points of success at stage performance. In Panini - *grantha, lipi, lipikara, likha* words appears. *Ramayana* and *Mahabharata* – *likha, lekha, lekhana, lekhaka* are traced. *Vasishtha* and *Vishnudharmasutra* - *likhita* is traced. *Aranyaka* and *Upanishad* speaks on grammatical terms such as – *varna, matra, bala, sandhi, samhita, svara, antastha, ghosha*, etc. *Samhitas* have words like *pankti, dvipadi, tripadi*, etc

Three divine writing according to Fa-wan-shu-lin (668 AD) –

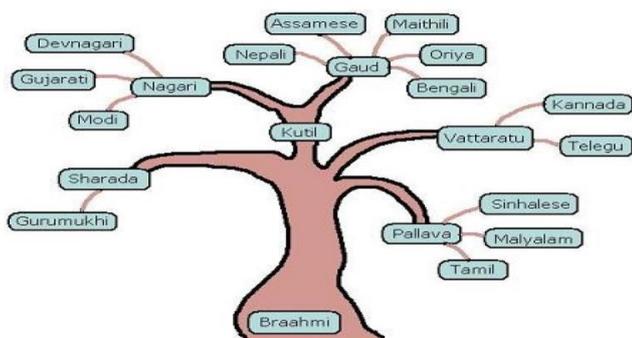
- ✓ Fan or *Bramhi* invented by *Bramha*, which is written from left to right
- ✓ *Kia* – *lu* invented *Kharoshthi* written from right to left
- ✓ *Tsanghich* invented Chinese, which runs from top to bottom

First two born in India; third in China. First is best of scripts and the last one is least<sup>[4]</sup>.

## SCRIPTS AND MANUSCRIPTS AVILABLE

The *Southern Brahmi* was further classified into Konkan-Deccan-Andhra type and Dravidian type. The Nanaghat Cave inscriptions (150 BC) and the cave inscription of Nasik, Pitalkhor and Ajanta belongs to the Konkan type.

The Dravidian type of Southern Brahmi was used in Kalinga region, Tamil nadu, Kerala and Southern parts of Karnataka. Sanskrit was the most popular medium of instructions for a long time. The primary aim of the manuscripts was to preserve knowledge. Manuscripts were copied in the local script and in those that evolved over time, two significant varieties of scripts that emerged from Brahmi are the Northern and Southern *Brahmi*. Southern *Brahmi* led to the scripts of the Dravidian languages.



Picture 1: Evolution of script over time from Brahmi

All scripts are sister scripts being derived from single source i.e. *Brahmi*. *Devanagari* of *Dvaita* text on paper has some specialties. *Nagari* of Jain differs depending upon scribe (*Marvadilahiya* scribe or a *Gujarati lahiya*).

## WRITING MATERIALS

The following materials used in writing on the surface.

- ✓ *Patra*– leaves (the writing surface),
- ✓ *Dora* – cord (binding surface)
- ✓ *Granthi* – the knot (at one end of cord)
- ✓ *Chaadana* – the covering (cloth)
- ✓ *Masi* – ink
- ✓ *Lekhani* – the pen
- ✓ *Akshara* – characters (written)-
- ✓ Reed , pen, *bhoru*
- ✓ *Lekhani*
- ✓ *Lohakantaka*(stylus)
- ✓ *Jujavala* (compass)
- ✓ *Balu*(reed pen made up of bamboo)
- ✓ *Prakara*(compass box)
- ✓ *Shalaka / toolika*

*Bhitti* was used to represent a surface that contains painting.

WRITING EQUIPMENT ARE CALLED LEKHANASADHANA/LIPISADHANA/LIPISAMBHARA/LIPI SAJJA/LEKHANASAMAGRI.

Kumpi (ink pot), Kajjala (ink), Kesha (hair), Kambalamaho (blanket), MadhyecashubhramkuSham (grass tied in middle finger) |

Kambi (linear marker), Kalma (pen), KRupaaNikaa (knife), Kattari (scissor), KaaShTa (wooden platform), tathaaKaagalam (paper) |

Kreeki (eyes), KoTari(cabin), Kalmadaana (compass box), kRamaNe (legs), KaTihi (spine), tathaaKaaMkaro (polishing) |

EtairamyakakaaraakSharaishcasahitahashaatramcanityaml ikhet||<sup>[6]</sup>

## BEST SIZE OF MANUSCRIPT

S Jagannath in manuscriptology lists information that – best size of Manuscripts is 32 inch and is called *Mahavishnu*. 24 inch are called *Maheshwara*, bundle of 8 inch are called *Bramha*. It applies only to palm leaf, paper and not to birch bark. Birch bark Manuscripts will be of 12inch in size.

## SURFACE FOR WRITING

Following surface are used

- ✓ Paper is used to write Devanagari script.
- ✓ Palm leaf are used near water reservoirs
- ✓ *Bhoorjapatra* (birch bark) are used to write Sharada and Kashmiriscripts
- ✓ Rock edits (*shilalekha*)
- ✓ Inscriptions (*tamrapatra*- copper plate)
- ✓ Conch shell (mother of pearls)
- ✓ Skin of elephant – not used for Sanskrit Ms.
- ✓ *Phalaka* (wooden planks)
- ✓ Skin of bamboo<sup>10</sup>. *Sanchipath* – used in Orissa<sup>[7]</sup>.

## MATERIALS USED

Four types of materials used –

1. Palm leaf
2. Birch bark
3. Aloe tree
4. Paper.

Some folk tales also mention other leaves and lotusleaves being used as temporary writing surface and the content was later transferred to the more traditional writing surface.

The Buddhist literature calls a *patra* as *panna* or *parna*.

## PALM LEAF (TALAPATRA)

Three types of palm leaves are used for writing

- ✓ *Borassusflabellifer* Linn- Palmyra palm
- ✓ *Coryphaumbraculifer-talitalipot* – It need wet climate and grow abundantly in wet region – used more because remain flexible for longer time
- ✓ *Coryphataliera* –*Shreetala*- It will be always broader, thin and little brown in colour.

*Tala* is prone to insect attacks. Crack very easily. A stylus was used for *talaleaves*. Soft palm was best to write.

## PREPARATION OF PALM LEAF

Leaves were cut so as to remove mid rib, dried, boiled and dried again and made smooth by rubbing with stone. Then cut into required size and used.

Desilva describes method used in Srilankaas follows –leaf buds were collected from young trees, separated and immersed in cold water, then kept in hot water and allowed to remain for

4 hrs. For 3-4 nights allowed to dry in shade and then made soft by rubbing with cylindrical wood surface of areca palm. Then cut into required size and ends are pressed with hot iron to prevent damage from moisture and cold. The leaves were folded/unfolded again folded in four and unfolded. Two holes were punched between the cresses. 2 wooden boards of same size as that of leaves were attached at the ends and 2 cotton cord were passed and tied. Length of leaves vary between 4-90 cm. Breadth 2.5-8 cm. Then wrapped in red or yellow cloth.

**BIRCH BARK (BHOORJAPATRA)**-It is commonly found in Himalayan slopes and not found in south.

**PREPARATION OF BARK**- Several thin layers 40-50 of the inner bark of the birch tree are carefully separated, treated with oil and polished with smooth stone. *Bhoorjapatra* was used as writing surface since 4<sup>th</sup> century (*KautilyaArthashastra*). Alberuni 1030 AD writes the processing method for Preparation of bark.

### SAMUCHIPATH/ SANCAPAAT

The bark of Aloe tree called *sanchi path* in Assam. The Buddhist work *Arya Manjushree mulakalpa* mentions that aloe or agaru bark was used for writing mantras and yantras.

**PAPER** - Paper was introduced in India by moguls. The earlier paper Manuscript available are the *Hafiz* dated 816 AD that contains a number of *Ghazals*.

The paper Manuscripts are usually oblong or square and kept as loose sheets and not as scrolls. A scroll of *Bhagavatapurana* found in the British Museum while Baroda oriental Institute has a paper Manuscript that is very thin and written in *Nagariscript*.

**OTHER MATERIAL** - Some metals and non metals were also used as writing surface. Copper, gold, silver, brass, bronze, iron, tin, stone, earthen-ware, ivory, cotton, wool etc were used as writing surface

**METALS** - *Tamrapatta*, *tamrapattika*, *tamrashesana*, were used mostly for writing legal documents. Ex - DiscovedSohgaura plate that belongs to Chandra GuptaMuryas period (3<sup>rd</sup> BC).

**GOLD** - Even though gold is malleable like copper it was rarely used due to its cost. *Naishadheeyacharita* 6.63 describes use of golden ketaki leaves for writing. Two gold leaves close to the *Kadamba* script dated 5<sup>th</sup> AD was discovered in Myanmar and a golden throne in Mysore palacecontaining 24 verses written in *Anushubh* meter.

**SILVER** - It was use drawing tantric formula and yantras.

**BRASS** - A brass containing *Krishnarajavadeyar III* contains the name of kings.

**BRONZE & IRON** - Meherouli iron pillar in south Delhi has updated inscription starting about 18.5 centimeters. The pillar at Dhār has *Nagari* and Persian inscriptions. The iron pillar in the Acaleshwar temple on mount Abu and the pillar at Kodachadri in Shimogga district do not have any writing on them.

**TIN** - ABuddhist image dated 1517 AD in Nepal was found written on Tin.

### NON METALS

**STONE**- the edicts of Ashoka, Hattigumpa cave inscriptions and Allahabad cave inscriptions (400AD) are examples. Two Sanskrit plays preserved in Ajmer are the evidences of writing on stone.

**LEATHER** -it was used more in western world than in India.

**IVORY** - writing on ivory arefound in Orissa state museum.

**SHELL** -Writing on shell were discover from Andhra Pradesh.

**COTTON** - *IT* was having poor durability. A layer of rice or wheat pulp was spread on the cloth, dried and polished with a smooth stone. It is called *pataor paatika*. Bana refers to writing on clothes in his *Harischandra*. A few *patachitras* belonging to 16<sup>th</sup> century are present in the Prince of Wales Museum, Mumbai.

**WOODEN BLOCKS** - *Tripitakakoreana* is the authoritative source of Buddhist studies containing 81,268 wooden blocks prepared in 13<sup>th</sup> century that has metal corners to protect them from cracking. The blocks were soaked in sea water for 3 years. The salt is the sea water repelled insects and the lacquer coating made them wood proof<sup>[8]</sup>.

### III. WRITING INSTRUMENT

The term *lekhani* refers to any writing instrument. Stylus - those with hard and sharp tips to cut- these were made up of Gold, silver, copper and brass. Decorated in the ends or kept plain. The tip was usually made up of steel that could be sharpened on an oiled stone. The point was of 4 types

a. *Chatra*- 4 angula, b. *Patra*- 2 angulas, c. *Nala* - 3 angulas andd. *Ganda*- 1 angula. The letters were 10 *angulas* in length.

### DIFFERENT STYLUS





Picture 2: Different stylus

#### IV. WRITING INSTRUMENT

**PENS** – those with soft and smooth tips are used to write was made up of porcupine quill, bamboo twig or kind of reed. The pen made up of bamboo reed was called *Isika* or *Isikaa*.

**BRUSHES** that are used for painting were made up of reeds, wood, iron, fibre, hair. Synonyms for it are *kunchika*, *masikunchika*, *tuli*, *dushika* or *varti*.

#### TERMS RELATED WITH WRITING INSTRUMENT

Following terms are found for writing instruments as

- ✓ *Varnaka* or *varnika* is a colour stick, usually white like a pencil used to draw on a board.
- ✓ *Khatini* was the term for chalk.
- ✓ *Manashilawas* soft stone for writing.
- ✓ *Varna vartika* was coloured pencil.
- ✓ *Vartikakaranda* was painter's box.
- ✓ *Aksharatulika* is a reed pen.
- ✓ *Aksharabhoomika* is a tablet/board.
- ✓ *Kachana* or *kachanaka* is a string or tape that ties bundles of papers or leaf of Manuscript.
- ✓ *Kachela* is a cover that keeps the Manuscript folios together.
- ✓ *Pratipustaka* is a copy of an original Manuscript.

#### OTHER WRITING MATERIALS

The other materials used for writing are

- ✓ Rulers, compasses and bow pens were used to draw lines and circles.
- ✓ Cincture was used to make holes in palm leaves.
- ✓ Knives were used to trim the leaves.

- ✓ The Manuscript was placed on a stand called *VyasapitaorLipyasana*.
- ✓ *Kambi* is a kind of ruler used to keep the lines of writing straight.
- ✓ *Srinkhala* is a chain that is attached to the ink pot.

#### INK

The dye or ink was called *masi*. *Patranjana* is a paste used to blacken the incision on palm leaf. After incising on a palm leaf the leaf is smeared with black paste that settles in to grooves and make the letters appear clearly. *Masipatra* is ink pot used to store ink.

#### TYPES OF INK

Following two types of ink was used

- ✓ Indelible ink was used to write Manuscript.
  - ✓ Delible ink was used to write ordinary material.
- Tamala rasa* – the juice from *tamala* leaf and *Alaktaka rasa* – juice from *alaktaka* leaf that is red were used frequently.

Black ink was used for writing books. Yellow ink was used for erasures. Red ink was used to mark end of chapters, shloka or sections. Gold and silver inks were used to draw borders on leaves.

Indelible ink was used to write Manuscript. Visible ink was used to write ordinary material.

#### PREPARATION OF INK

Generally collyrium powder, mercury, root of burnt oil of sesamumindicum, essence of bangra plant, gum of Azadirchta, gum Arabic, gum of fruit *Zizyphus jujube* were used to make ink. The ink was made in copper utensil over a period of 20 days.

Ordinary ink was made by mixing powder of charcoal with gum and some other sticky substance like sugar and dissolved in water. Permanent ink was made by boiling charcoal with oils such as an almond oil or sesame oil. Indelible ink was made by baking the charcoal of peepul tree in water with gum.

#### BINDING THE MANUSCRIPT

Ms may be either in stitched or unstitched form. Handmade paper is not stitched, while machine made paper is stitched or unstitched.

#### TYPE OF MANUSCRIPTS

Following types are known based on its size

- ✓ *Gandi*– a manuscript having thickness equivalent to its length.
- ✓ *Kacchapi* – wider in middle
- ✓ *Musti*– small held in fist
- ✓ *Samputaphalaka* –wooden side boards
- ✓ *Chedapatior chivati* or *shrupatika*- thin book with only few leaves.

## V. CLASSIFICATION BASED ON STITCHES

It can be made as follows

- ✓ *Pothi* – It is centre stitched, small in thickness
- ✓ *Potho* – It is centre stitched bigger in thickness
- ✓ *Gutka*- It is centre stitched or side stitched of 15×10 cm size.
- ✓ *Panavalli* – It is oblong and stitched at the shorter side.

## VI. CONCLUSION AND SUMMARY

Writing was a way of preserving ancient knowledge that was transmitted orally. Several copies of the text were made with the aim of preserving. The manuscripts were copied in several scripts. The oldest scripts were *Bramhi* and *Kharoshtri*. Many scripts were derived from *Bramhi*.

Right from *Smriti* 5<sup>th</sup> AD to that of Samhitas at several instances the writing in ancient India can be identified. By study of such ancient writings documented in the form of manuscripts provides or fills missing links and culture.

The writing materials include writing surface, instruments, ink, binding of sheets etc. Palm leaf, birch bark, paper were the main writing surfaces. They were prepared with certain ways, made in to smooth and fit for writing. Metals and non-metals were also used as surfaces of writing.

Among the writing instruments the stylus was used to incise palm leaf. Different pens made of crow quills, porcupine quill or bamboo twig etc and brushes were used to write on surface as well as for illustrations respectively.

Ruler, compasses, ink and leaf juices were used to draw lines, figures, for writing and correction respectively. Manuscripts are either stitched or left as loose sheets and may have wooden side boards or pieces of leather as protective covers.

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