CHAPTER - 2

THE PALAEOGRAPHY

OF ORISSAN INSCRIPTIONS

FROM CIRCA

4TH CENTURY A.D. TO

CIRCA 7TH CENTURY A.D.
From about the 4th century A.D. onwards, we find more and more epigraphic records incised both on metal and stone. In fact, it has been possible to reconstruct chronologically the history of Orissa on the basis of these records. At the same time a clear idea of the development of scripts through ages can be obtained with the help of these inscriptions.

The ruling families which had sway over the different parts of ancient Orissa claimed to belong to the Vāsishṭha, Māṭhara and Pitrdbhakta families. They ruled the region comprising Srikakulam, Visakhapatnam district in Andhra Pradesh and south region of present Ganjam and Gajapati districts. The epigraphic records of Southern Orissa from the 4th to the 7th century A.D. are mainly incised on copper plates. The scripts belonged to the group of Post-Gupta Brāhmi alphabet of the southern variety prevalent during the 5th - 6th centuries A.D. The growing influence of the styles in South India held in the 5th - 6th centuries A.D resulted the letters become more rounded and have waves on their arms and these waves are probably due to the nature of the palm-leaf on which styles was used. The archaic characters also developed here due to the result of technical development, either in the use of new tools or in the new manner of using old tools.

The South western parts of Orissa is known to have been under some independent rulers claiming to be of the Nala family during the first quarter of the 6th century A.D. Where as the ancient Kosala (Raipur-Bilaspur in Chhattisgarh). Bolangir, Sambalpur tract in Orissa was ruled by the Śarabhapurīyas in about the 5th - 6th centuries A.D. Their records have been found in the Raipur and Raigarh districts (now in Chhattisgarh) as well as in the Kalahandi district of Orissa and their rule in south Kosala was supplanted by the Pāṇḍuvamśins during the 6th - 7th century A.D.

The ruling families of Western Orissa used the so-called box headed variety of the central Indian alphabet with southern

1. It is called box headed because the top of the letters give the appearance of small square boxes which are formed by sinking of four short strokes in the form of a square.
peculiarities. The characters of their inscriptions evince the tendency towards elongation\(^2\) and angularisation after in a considerably more accentuated manner. The equalisation of all the verticals turning of all the curves into sharp angles and the contraction of the breadth impart a peculiar appearance of this alphabet. The projection of the top line of the crowning box on both sides adds to strangeness of these alphabets. These tendencies are to be noticed in a more or less pronounced form is practically in all the Pāṇḍuvaṁśins records. The scooped out southern variety of the box headed marks are used in the Kesaribeda plates of Nala Arthapati \textit{bhaṭṭaraka}. In some cases the southern formulas are used.

The use of different types of tools for writing which had a marked influence on the letters of Northern Orissa. The use of pen throughout Northern India gave a definite head mark to the letters. From the 5th century A.D. onwards the pen leaves behind a blot at the foot of the verticals which shows the new forms of the letters as exhibited in the records of the Vigrahas, Dattas, Mudgalas as well as Nāga families of Northern Orissa.

Though the regional styles might have differentiated but the use of common language, Sanskrit helped for the easy movement of literates and scribes from one region to another. Although later kingdoms had to adopt uniform style of writing with in their jurisdiction but some similarity are also marked. So the alphabets used in the epigraphic records of the various parts of southern, western and northern Orissa and their correlation and differences are exhibited here.

\textbf{A:} In the epigraphic records of southern Orissa ranging from the 4th to the 7th century A.D., the initial \(\alpha\) is found in a number of

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2. P.B. Desai, however is of the opinion that the tendency for elongation is not a general sign of development of the script, but only an individual trait of the scribe. \textit{EL}, Vol XXVII, p 289 f.
forms. In the first which may be taken as earliest variety is seen in
the Peddadugam copper plate grant of Mahārāja Śatrudamana[3] and
also in the records of the Gaṅgas of Kalinganagar. Here the letter
is composed of the vertical stroke on the right descends down and
the curl is replaced by a parallel upward stroke and a small stroke
is attached to the left of the arms (Plate No. X, Serial No. 1). But in
the records of the Vāsishthas the lower right arm is curled upwards
as parallel to the top of the letter. That type is occurred in the
Eastern Chālukyan records of the 7th century A.D. In its later
variety the upper part of the left curve line becomes a short vertical
stroke and that creates an angle which met with the right stroke
on the centre. The added short tick mark on the left side becomes
a hook and that sometimes becomes either cursive or angular. The
angular form most probably developed due to the hard nature of
the copper plate for engraving the letters. The earlier southern
style is also noticed in a number of western Orissa inscriptions of
the same period but the letters are more angularised in nature.

In all the records of the ruling royal families of Western Orissa
such as Nalas, Śarabhapurīyas and Pāṇḍuvānśins the letter adopt
the angular form of southern style having box headed serif on the
top of the right stroke. This type resembles to the Vākāṭaka and
Vishnukunḍin script of the 5th and the 7th centuries A.D. respectively[5].

The southern formula is used in the Kesaribeda plate of
Arthapati bhaṭṭāraka[6] (Plate No. XI, Serial No. 1) and Podagadh
stone inscription of Skandavarman[7] (Plate No. XI, Serial No. 3) and

4. A. H. Dani, Indian Palaeography, p. 56. f
5. C. Sivaramurti, Indian Epigraphy and South Indian scripts, p. 56 f and plate.
of the Nala records. This is probably due to the use of stone materials for engraving the letters.

A fundamental change of the initial letter \( a \) is seen in the North Orissan inscriptions of about the 6th - 7th centuries A.D. The distinct triangular or horizontal head marks are used as the serif of the letter. The left limb hangs down from the short horizontal line which is curved at the end towards right and a horizontal bar is attached as the middle bar for joining the two limbs. This variety is known as hooked type where the lower curve on the left is appointed from the upper part as a hook turned to the right as seen in the Amauna plate of Nandana (Gupta) year 232 of the region comprising the Middle Ganges Valley. The different formation is obtained in the Asanpāṭ Naṭarāja Image Inscription where the left limb of the letter hangs down straight from the thick head mark and the horizontal line is joined with the two limbs. (Plate No. XVI, Serial No. 2). The letter indicates that it is of the primary form of the Gupta alphabet. It only differs from the earlier Gupta alphabet that the lower left half of \( a \) is slightly curved towards right while it is straight vertical in the later. The similar variety is obtained in the Mathura inscription of Chandragupta II assigned to about the late 4th century A.D.

\( \acute{A} \): The initial \( \acute{a} \) is differentiated from \( a \) by the addition of a curve line on the right limb such type is found in the earlier records of Southern Orissa assigned to the 5th - 6th centuries A.D. In some inscriptions as in the Sruṅgavarapukota plates of Anantasaktivarman (Plate No. VI, Serial No. 1) and Pedḍādugam

copper plate grant of Mahārāja Satrudamana (Plate No. X, Serial No. 1), and as well as in the copper plate grants of the Gaṅgas of Kaliṅganagara the letter become angularised. In that angularised form the hook is added either from the joint section of the left horizontal bar on the right limbs or just at its below.

In the case of Western Orissan inscriptions of about the 6th - 7th centuries A.D. the letter  are follows the same principles as that of the south Orissan alphabet of the contemporary period. But adopting the southern features the box headed serif is only added as the serif of the letter on its top. The difference is marked in the Rithapur plate of Bhavadattavaraman year 11 (Plate No. XI, Serial No. 2) and Aranga plate of Mahāsudevarāja (Plate No. XIII, Serial No. 1) where a short tick mark is added in the top right side of the vertical line as in the case of Kadamba and Vākātaka script of the 4th - 5th centuries A.D.  

It is composed in a different way in the northern epigraphic records of Orissa. Here two vertical limbs are joined by a slanting bar of the right limb. But in the Asanpāṭ Naṭarāja Image inscription the left limb of the letter is slightly curved towards left (Plate No. XVI, Serial No. 2) which is the local curved variety of Central India and Rajsthan. This type is also noticed in the Earn Pillar inscription of Buddhagupta and Earn boar inscription of Toramāṇa of the 6th century A.D.

17. *Ibid*, pp. 159 - 60 f.
In the southern epigraphic records of Orissa of 5th - 6th centuries A.D., it is composed of double roof and the roofs are curved above two dots as seen in the Siripuram plates of Anantavarman (Plate No. V, Serial No. 3). But in the records of the Gañgas of Kaliṅgagāra the dots are replaced by two circles. The dot variety is also prevalent in the Raipur copper plate grant of Sudevarāja (Plate No. XIII, Serial No. 2) of the Šarabhapuriyas and Bāhmani plates of Bharatabala (Plate No. XIV, Serial No. 1) of the Pāṇḍuvaṃśins of Western Orissa. In the epigraphic records of Western Orissa as particularly seen in the Sirpur inscription of the time of Bālārjuna where a thick horizontal bar is used on the top and above the two circles (Plate No. XV, Serial No. 2). Another formation is obtained where a horizontal bar is used in between the two downward curve line and two circles are placed below it. These features are adopted in a number of inscriptions such as in the Rajim copper plate of Tivaradeva (Plate No. XIV, Serial No. 2), Adhabhava plates of Mahānannarāja (Plate No. XV, Serial No. 1), Bārdula plate of Mahāśivagupta (Plate No. XV, Serial No. 3) and also Lodhia plate of Mahāśivagupta (Plate No. XVI, Serial No. 1). The upper curve lines are angularised and it is clearly visible in the Lodhia plates of Mahāśivagupta of the 6th - 7th centuries A.D. (Plate No. XVI, Serial No. 1). The upper part of the letter is styled as n of the same period. Different style are observed in the epigraphic records of Northern Orissa of the 5th - 6th centuries A.D. Here two circles are


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placed and the tail is below them as found in the Exan Boar
Inscription of Toramāṇa of the early 6th century A.D. of Central
India and Rajsthan. That variety is also prevalent in the Podagadh
stone inscription though it belongs to the western category (Plate
No. XI, Serial No. 3).

**U:** Generally in all the records of Southern Orissa ranging from the
4th to 7th centuries A.D., *u* is formed by a perfect semi-circle
while it is shaped as an angular hook towards right in the Nīṅgoṇḍi
plates of Prabhāṭjanavarmā (Plate No. V, Serial No. 1) of the
Māṭhara records. The primary variety resembled to the script used
in the Nerur plates of Vijaya bhattaraka\(^{26}\) of the 7th century A.D.
In the records of western Orissa *u* is different from southern
variety only with the addition of perfect square mark on the top of
the semi-circle as particularly visible in the records of the
Śarabhapuriyas and Pāṇḍuvarmiṇs. The curved hook variety is found
in the records of the Nalas. The styles are adopted as from the
Vākāṭaka records of the 5th century A.D. We have to find out the
variation in the northern form which is some\(^{26}\)what different from
the southern and western varieties. In all the records of northern
Orissa the lower curve of *u* is further prolonged down with the
addition of a nail head mark on its top. But in the case of Asanpāṭ
Naṭārāja Image stone inscription its base is curved slightly
downwards to right (Plate No. XVI, Serial No. 2). The northern
influence is also marked in the Sirpur inscription of the time of
Bāḷārjuna where it is wedge headed and the curve line is prolonged
towards left (Plate No. XV, Serial No. 2) as represented in the
inscriptions of the Middle Ganges Valley of the early 6th century
A.D.\(^{27}\)

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In the 5th - 6th centuries A.D. the base of initial e is either flattened or notched and a curve line is lengthened towards right. Such variety is noticed in the Madras Museum plate of Anantavarman and Purle plates of Indravarman of Southern Orissa. In all these cases its mouth is opened. Another feature of e is also observed where the belley of the letter protrudes to the left and bottom curve on the centre (Plate No. V, Serial No. 2) which resembled with the script used in the Śālaṅkāyana inscriptions of the 4th century A.D. But the change of the style is found in the Siripuram plates of Anantavarman where the left part of the earlier form becomes more developed and the vertical line is added where the line of belly reaches (Plate No. V, Serial No. 3). In the records of the Pāṇḍuvaṁśins of Western Orissa e is represented by a square with the vertical line on the right prolonged above. Here a small wedge head mark or horizontal bar is used as the serif of the letter. The peculiarity is found in the Podagadh stone inscription (Plate No. XI, Serial No. III) of the Nala family where it retains the triangular form of the North Indian variety of the 6th century A.D. This form is somewhat related with the letter e occurring in the Spurious Gaya plate of Samudragupta of the region of Middle Ganges Valley and the Bower inscription of the early 6th century A.D. of the Mathura region. While in the North Orissan inscriptions of the period under discussion e is simply referred as triangular shape and the apex is on the top. It is seen in the records of the Dattas (Plate No. XVIII, Serial No. 2, 3) and Vigrahas (Plate No. XVII, Serial No. III).

**K:** The simple cross bar of the earlier period became an angular hook on the left with the addition of a short horizontal bar or dot on the top. That is the features of k found in the South Orissan epigraphic records of the 5th - 6th centuries A.D. Sometimes the horizontal head mark is transformed into wedged form. Another form is found where the right end of the cross bar slightly curved downwards as seen in the Tekkali plates of Umāvarman (Plate No. VI, Serial No. 2) of the Pitrbhaktas, Temburu plates of Umāvarman (Plate No. VII, Serial No. 2) and in the Narasingapali plates of Hastivarman (Plate No. VIII, Serial No. 2) of the Māṭhars.

In the Western Orissan alphabets of the 5th - 6th centuries A.D. k is written in graceful manner with the box headed serif on the top. The lower end of the vertical stroke forming hook shaped on the left running up parallel half-way to the main stroke in the Rajim stone inscription of Vilāsaturīga (Plate No. XII, Serial No. 2) and in the sirpur plate of Mahāsudevarāja (Plate No. XIII, Serial No. 1). This variety shows as it is influenced by the Kadamba script of the 4th - 5th centuries A.D. Although the angularism of the letter is the special feature of Western Orissan inscriptions but in some cases as in the Kurud plate of Narendra (Plate No. XII, Serial No. 2), Aranga plate of Mahāsuderarāja (Plate No. XIII, Serial No. 1) the lower base of the letter became cursive in nature. That formula is also used in the letter of the Śālaṅkāyana inscription of the middle of the 4th century A.D. and Kanteru plates of Vijaya Skandavarman of the early 5th century A.D. of Andhra and the neighbouring areas.

We have come across three different varieties of \textit{k} in the North Orissan inscriptions from the 4th to the 7th century A.D. In the Asanpāṭi Naṭarāja Image inscription \textit{k} retains the first form where the middle bar is curved. Here the nail headed or the thick triangular mark is used as the serif of the letter (Plate No. XVI, Serial No. 2). That type shows its relation with the letter used in the early Gupta alphabet of the 5th - 6th centuries A.D. In the second variety it is formed by the curve line on the left of the vertical which grew as a triangular loop and a downward tick mark is added on the right part of the letter. We find those features particularly in the records of the Mudgalas (Plate No. XVII, Serial No. 2), Vigrahas (Plate No. XVIII, Serial No. 1) and also of the Dattas (Plate No. XVIII, Serial No. 2, 3). The tail sub-variety is developed in the Kaṇas plate of Bhānudatta\textsuperscript{39} (Plate No. XVIII, Serial No. 3). Here the vertical line is lengthened down and slightly separated from the left loop. That formula is also used in the Sirpur inscription of the time of Bālārjuna of the Śarabhapūriyas (Plate No. XV, Serial No. 2) and Rajim stone inscription of the Nalas but the wedge head mark is clearly marked on the top of the letter (Plate No. XII, Serial No. 1).

\textbf{KH:} After the 4th century A.D. \textit{Kh} is used in the South Orissan inscriptions in a different form where the lower end of the vertical line is bent towards left forming a loop as seen in the Rāmatirtham plates of Indravarman\textsuperscript{40} and the Chikkulua plates of Vikramaditya II\textsuperscript{41} of the 7th century A.D. But in the Kesaribadi plates of Nala Arthapati \textit{bhattāraka} the lower of the vertical is simply bent towards left (Plate No. XI, Serial No. 1). The letter has taken the angular form in the Western Orissan inscriptions. But in the Baloda plate of Tivaradeva the upper curve part of the letter takes the box form (Plate No. XIV, Serial No. 3).

\begin{itemize}
\item[39.] \textit{El}, Vol. XXVIII, pp. 332-34 ff and plates.
\item[40.] \textit{El}, Vol. XII, pp. 134-35 f and plates.
\item[41.] \textit{El} Vol. IV, pp. 195-97 ff and plates.
\end{itemize}
In the records of Northern Orissa it has flattened top and prominently shows the triangular foot mark at the left limb while the right limb has the hollow triangle on the inner side of the letter. But in the Sumanḍala copper plate grant of the time of Prthivivigraha bhattāraka\(^{42}\) the top of the letter became rounded (Plate No. XVII, Serial No. 3) like the Haraha inscription of Iśānavarman\(^{43}\) of the 7th C.A.D. It is slightly composed in different forms in the records of the Śambhuyaśas where the inner triangle is replaced by the outer right limb and the mouth is opened.

\textbf{G:} In the epigraphic records of Southern Orissa belonging to the 5th - 6th centuries A.D. \(g\) is simply formed by two vertical stroke joined by a horizontal line on the top. Generally it has equal armed but some instances display the left arm is shorter and the arms are curved inward as seen in the Peḍḍāduagam Copper plate grant of Mahārāja Satrudamanā (Plate No.X, Serial No. 1). In the records of the Vāsishṭhas the left arm is also curved inward, as seen in the Western Chālukyan script of the 6th century A.D.\(^{44}\) The hook system of \(g\) was also prevalent in the Tandivada plates of Prithivimahārāja\(^{45}\) (Plate No. X, Serial No. 2) like the Vishnukunḍin letter of the 7th century A.D. of South India.

In the records of the Pāṇḍuvamśins, Śarabhāpuriyas and Nalas, the box head appears above the flattened top of the letter. In some instances the flattened top of the letter is marked by a small thick stroke. That variety shows as it is influenced by the script of the Kadambas and Vishnukunḍins of the 4th - 5th centuries A.D.

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42. \textit{El.}, Vol. XXVIII, pp. 79-85 ff and plates.
44. A. H. Dani, \textit{Indian Palaeography}, New Delhi, 1986 p. 184 ff
In all the records of Northern Orissa from the 4th to the 7th century A.D. \textit{g} is flattened at its top. It shows the triangular foot mark in the left limb and the right limb is slightly longer than the left. It resembled with \textit{g} used in the Allahabad Pillar inscription of Samudragupta\textsuperscript{46} in the mid 4th century A.D. karmadanda inscription of Kumaragupta\textsuperscript{47} and Bhitari Pillar inscription of Skandagupta\textsuperscript{48} of the 5th century A.D. while in the Kaṇas plate of Lokavigraha \textit{bhattāraka}\textsuperscript{49} (Plate No. XVIII, Serial No. 1) it has rounded top as seen in the Amauna plate of Nandana\textsuperscript{50} of the 4th - 5th centuries and Mathura inscription of Kumāragupta I\textsuperscript{51}, early 5th century A.D.

\textbf{GH:} In the records of the Mātharas as seen in the Nīṅgoṇḍi plate of Prabhaṅjanavarman\textsuperscript{52} \textit{gh} is found in the trident form (Plate No. V, Serial No. 1). In many cases the elongated arms continue with the left prong and bulging out somewhat receding again to take an upward course before finally getting thickened at the top. The horizontal bar is used as the serif of the letter in the records of the Pitrbhaktas and also in the Purle plate of Indravarman\textsuperscript{53} of the early Gaṅgas of Kaliṅganagara. That type occurred in the Maitrika script of the 6th century A.D. and it is influenced by the letters of the Central India, Rajsthan and South India.

\textit{Gh} in the records of the Pāṇḍuvamśins and Śarabhapurīyas assumes the same practice of Southern Orissa but here the letter

\textsuperscript{46} \textit{CII.,} Vol. III, pp. 6-10 ff and plate
\textsuperscript{47} \textit{EI.,} Vol. X, p. 71 f and plate.
\textsuperscript{48} \textit{CII.,} Vol. III, pp. 53-54 f and plates.
\textsuperscript{49} \textit{EI.,} Vol. XXVIII, pp. 329 - 31 ff and plates.
\textsuperscript{50} \textit{EI.} Vol X, pp. 50-51 f and plates.
\textsuperscript{51} \textit{EI.,} Vol II, p 210 f and plates.
\textsuperscript{52} \textit{EI.,} Vol. XXX, pp. 112-18 ff and plates.
\textsuperscript{53} \textit{EI.,} Vol. XIV, pp. 360-63 ff and plates.
is more angularised and a box head is added as its serif like the Vākāṭaka script of the 5th century A.D. In some cases the base is divided into two equally curved as left half and right half as seen in the Bihar Kutra inscription of Naravarman and Gangadhar inscription of Visvamitra of the 5th century A.D of Central India and Rajsthan. Another form is noticed in the western records where the base is divided into sloping right half and curved left half but in the Adhabhava plates of Mahānnarāja the base is sloped towards right (Plate No. XV, Serial No. 1). The letter is somewhat different in the Nala records. Here the letter is simply in trident form and the top of the middle vertical line is thickened.

The Gupta and Post-Gupta variety of gh is clearly visible in the North Orissan epigraphic records. The Gupta style is seen in the Asanpāṭ Naṭarāja Image inscription where the letter is formed by flat bottom with three pronged and the top of the left limb is thickened (Plate No. XVI, Serial No. 2). The second variety undergoes a fundamental change by dividing the base line into two halves. In this variety the straight right half meets with the upright at an acute angle and the left half curving with the left upright. A thick serif is added on the top of the left limb where as in the Sumanḍala copper plate of Prthivivigraha bhattāraka the middle prong is thickened on the top (Plate No. XVII, Serial No. 3).

CH: The dot or wedged head marks are used as the serif of ch in the epigraphic records of Southern Orissa. In the records of the Garigas of Kaliṅganagara the serif to the left is clearly marked and the base line undulates to form a double curve line like the Śālankāyana and Vishṇukūṇḍin letters of the 5th - 6th centuries A.D. The belly

of the letter is bulged up more to the left in the Brihastaprostha grant of Umāvarman\textsuperscript{57} (Plate No. VII, Serial No. 1) like the Pallava script of the 7th century A.D.

In the records of Western Orissa the bell\textsuperscript{y} of the letter is more or less rectangular in shape and the square box is clearly crowned on the vertical stroke (Plate No. XII, Serial No. 1, 2, 3). In some instances as particularly seen in the Baloda plate of Tivaradeva (Plate No. XIV, Serial No. 3) and Lodhia plates of Mahāśivagupta (Plate No. XVI, Serial No. 1) the right vertical line is prolonged down where as the triangular form is found in the Nala records (Plate No. XI, Serial No. 1, 2, 3) and in the Sirpur inscription of the time of Balarjuna (Plate No. XV, Serial No. 2).

The style changed in some manner in the North Orissan inscriptions. The beaked form of \textit{ch} is generally found in the Asanpāt Naṭarāja Image Inscription of Śatrubhaṇḍa (Plate No. XVI, Serial No. 2), Sumandala copper plate grant of the time of Prthivīvīgrahā bhaṭṭāraka (Plate No. XVII, Serial No. 3) and Kaṇas plate of Lokavigraha (Plate No. XVIII, Serial No. 1). The variety discussed above is almost same as in the script of the Middle Ganges valley region and of Central India and Rajsthan. In another type it has triangular loop and the top is thickened as found in the Soro plate of Somadatta, year 15\textsuperscript{58} (Plate No. XIX, Serial No. 1, 2) like the Tiwarkhed plates of Nanarāja Saka year 553\textsuperscript{59} of Central India.

\textbf{CHH:} A number of three different varieties of \textit{chh} are found in the epigraphic records of Southern Orissa belonging to the 5th - 6th centuries A.D. In the first category the letter is composed of two

\begin{itemize}
\item \textsuperscript{57} EI, Vol. XII, pp. 4-6 ff and plates.
\item \textsuperscript{58} EI, Vol XXIII, pp. 202-03 f and plates.
\item \textsuperscript{59} EI, Vol. XI, pp. 279-80 f and plates.
\end{itemize}
speroids which are little apart and connected by the central vertical stroke. Here the thick wedge serif is used in the top of the letter as seen in the Yaśodharman inscription of the 6th century A.D. 60, Karmadanda and Bhitari pillar inscription of the mid 5th century A.D. In the second of its kind it is composed only of other two spheriods and shaped like rear on the top. The left of one being little more pointed and raised than the other and the thick triangular head mark is used on the top of the left loop. Similar formation is obtained in the early South Indian, Śālaṅkāyana and Pallava script of 5th - 6th centuries A.D. The peculiarity is found in the records of the Vāsiśṭhas, Temburu plate or Umāvarman (Plate No. VII, Serial No. 2) and also in the Peddādugam copper plate of Mahārāja Śatrudamana (Plate No. X, Serial No. 1) are belonged to the third category. In this variety it has only two loops which partly look like the Arabic numeral 8 in horizontal dimension.

The letter chh used in the records of the Pāṇḍuvaṁśins and Śarabhapurīyas is differentiated from the Southern inscriptions only with the addition of square head mark on the top of the short vertical line to the left. In the Asanpāṭ Naṭarāja Image inscription of Northern Orissa chh is formed by a small vertical line which is prolonged down from the thickened or small horizontal line on the top. They hold two loops, one in each side and the left loop is smaller than the right (Plate No. XVI, Serial No. II) which resembled chh used in the Karmadaṇḍa and Bhitari Pillar inscription of the 5th century A.D. and also in the Indore plate of Skandagupta 61 of the 5th century A.D.

J: The earlier formula having some changes are formed in the case of j used in the southern epigraphic records of Orissa ranging from

the 4th to the 7th century A.D. The top and bottom lines are not straight horizontal and they are slightly curved down. Sometimes they undulate the form of slight double curve like the Kadamba, Śālankāyana and Vishṇukuṇḍin script of the 4th - 5th centuries A.D. where as in the records of the Pāṇḍuvaṃśins and Sarabhapuriyas, the vertical stroke recedes inwards above the second stroke and box head is added to its top left (Plate No. XIII, Serial No. 1, 2, 3) as in the Vākāṭaka script of the 5th century A.D. Gupta Brāhmi influence is marked in $j$ used in the Asanpāṭ Nātarāja Image inscription (Plate No. XVI, Serial No. 2) and in the records of the Dattas (Plate No. XVIII, Serial No. 2, 3). It is simply of three straight arms on the right which are attached to a vertical line on the left while in some cases the lowest arm is slightly slanting towards right. Another type is formed in the Soro plate of Somadatta. In such variety the upper arm is merged with the head mark (Plate No. XIX, Serial No. 1, 2) as seen in the Tiwarkheda plates of Nannarāja of the 7th century A.D.

$\ddot{t}$: The later development of its form is found in the inscriptions of South Orissa belonging to the 5th - 6th centuries A.D. where the base of $\ddot{t}$ is straightened and a small undulation gives a shallow double curve (Plate No. VII, Serial No. 1, 2, 3). In some other instances as in the Ragolu copper plate of Śaktivarman$^{62}$ (Plate No. IV, Serial No. 3), Bobbili plates of Chandravarman$^{63}$ (Plate No. VII, Serial No. 3) and in the Tandivada plate on of Pṛthivimahārāja$^{64}$ (Plate No. X, Serial No. 2) the wedge head mark is used as the serif of $\ddot{t}$. In the records of the Nalas it is formed in half circle which is either curved or angularised and a horizontal bar is added on its

top (Plate No. XI, Serial No. 1). But in the Rithapur plate of Bhavadattavarman \(^{65}\) (Plate No. XI, Serial No. 2) the box head is used as the serif of the letter. Sometimes it is added on the top of the letter while in other instances it is added on the left part of the upward vertical line on the top. The Baloda plate of Tivaradeva (Plate No. XIV, Serial No. 3), Adhabhava plates of Mahāśivagupta as well as in the Kurud plate of Narendra follows the same principle.

**TH:** There is no change of the letter *th* in the epigraphic records of Orissa from the 4th to the 7th century A.D.

**D:** *d* is still in inverted sickle shaped and the curved base is slightly bent double and sometimes weavy in the South Orissan inscriptions. This variety is otherwise known as notched variety of *d* as it is influenced by the Śālankāyana, Vishṇukūṇḍin, Traikūṭa and Maitrika’s scripts of the 4th to the 5th centuries A.D. Both dots and horizontal bar are used as the serif of the letter *d*. The notched variety of *d* having box-headed character is found in the Pāṇḍuvamśins and Śarabhapuriyas records of Western Orissa. In the Raipur copper plate of Rājā Sudevarāja the second curve of *d* looks like the addition of a tail on the lower part of the upper curve line (Plate No. XIII, Serial No. 2). The notched variety of *d* having box headed character is noticed in the records of the Pāṇḍuvamśins and Śarabhapuriyas. In the case of northern epigraphic records of Orissa *d* follows the Gupta Brāhmī alphabet where the lower part of the curve line is straighten itself somewhat vertically and the top of the letter is thickened.

**DH:** In very few instances we have to come across the letter *dh*. The notched variety is particularly available in the Southern and Western Orissan inscriptions of the period under discussions like

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the Kadamba script of the 5th century A.D. In the Jayarampur copper plate grant of the time of Gopachandra of Northern Orissa dh is having a horizontal head mark and a curl is formed into a loop on the right (Plate No. XVII, Serial No. 1) which shows that as it is influenced by the Southern variety of Gupta Brāhmī alphabet. Such variety occurred in the Karmadana and Bhitari Pillar inscriptions of the mid 5th century A.D.

N: Two main varieties of n are available in the South Orissan inscriptions of the period from the 4th to the 7th century A.D. In the first variety n is composed of small horizontal stroke in the both ends rising vertically and curving out in opposite directions. In the Purle plates of Indravarman the horizontal base line is slightly slanting towards right (Plate No. IX, Serial No. 3) where as in the Brihatproshta grant of Umāvarman the base line is merged with the curve strokes (Plate No. VII, Serial No. 1). Similar formation is obtained in the Yaśodharman inscription of the 6th century A.D. In the second category n is formed with loop at the base and its top vertical divided into two lines but in some cases the curve line is formed one on the left and the other on the right side. In the Tandivada plate of Prthivimahārāja of the late 6th century A.D. n is composed of two small stroke joining to continue as a vertical line which branches off two curves downwards in opposite directions as it is influenced by the letters of the Śālaṅkāyana, Pallava and Western Chālukyan letters of the 6th century A.D. These two categories also occured in the Rajim stone inscription of Vilāsatuṅga (Plate No. XII, Serial No. 1) and Bahmani plates of Bharatabala (Plate No. XIV, Serial No. 1) as well as in the Sirpur inscription of the time of Bālāṛjuna (Plate No. XV, Serial No. 2). In some cases of

the loop variety, the left curved base line and the vertical line become one and the loop is added in a short distance from the horizontal line in the left. Which looks like the form of Nāgarī n. That has been particularly seen in the Narasingapali plates of Hastivarman, the year 7968 (Plate No. VIII, Serial No. 2), Urlam plates of Hastivarman, the year 8069 (Plate No. VIII, Serial No. 3) and Achyutapuram plates of Indravarman, the year 8770 (Plate No. IX, Serial No. 1) of the early Gaṅgas of Kaliṅganagara of the 5th - 6th centuries A.D.

In the records of the Śarabhapurīyas and Pāṇḍuvaṃśins of Western Orissa n is composed like the loop variety of South Orissan records having angular formation.

T: The Deccani style of t with a curved hook on the right of the vertical line is found in the Pedḍādugam copper plate of Mahārāja Śatrudamana (Plate No. X, Serial No. 1) like the Parivrājaka and Uchhakalpa inscription of the late 5th century A.D. and the early 6th century A.D. In some cases it becomes angularised and a short horizontal line was added on its top. The hook is added on the left side of earlier form in the records of the Gaṅgas of Kaliṅganagara like the Maitrika inscriptions of the 6th - 7th centuries A.D. Another variety is found in the Madras Museum plates of Anantavarman of Southern Orissa where the letter is formed a looped base on the left (Plate No. V, Serial No. II) as it is influenced by the inscriptions of the Vishṇukūṇḍin and Western Gaṅga records of the 5th - 6th centuries A.D. The Deccani variety is also used in the Kesaribeda plate of Nala Arthapati bhātṛaraka72

though the vertical line is slanting towards left (Plate No. XI, Serial No. 1). The angularism of the letter is noticed in the records of Western Orissa. In the records of the Pāṇḍuvaṁśins the added curve line on the left is in angular form and the bottom end of the letter is slanting towards left. A definite change is found in the records of the Pāṇḍuvaṁśins and Śarabhapuriyas where the angular hook is attached to the right vertical line and the vertical line is slightly curved towards left.

We have to notice two different forms of t in the records of Northern Orissa belonging to the 4th - 5th centuries A.D. In the first variety the letter is composed of a small vertical bar over the horse-shoe and a wedge shaped serif on the top like the Gupta Brāhmī alphabet of the 4th century A.D. This has also been seen in the South Orissan inscriptions. In the other variety the arm of the horse-shoe tending to get shortened to the left where as the right arm is slightly curved and lengthened. Each variety is found in the Podagadh stone inscription of Skandavarman (Plate No. XI, Serial No. 3) Rajim stone inscription of Vilāsatunga (Plate No. XII, Serial No. 1) and Sirpur inscription of the time of Bālarjuna (Plate No. XV, Serial No. 2) as in the Mandasor Yasodharman inscription of the 7th century A.D.

**TH:** In the records of the Mātharas and Piṭṛbhaktas of Southern Orissa th is oval in shape having the central dot. It's form is same as in the records of the Śālaṅkāyana of the 4th century A.D. While in the Early Gaṅga records it has open mouthed and the dot is replaced by a criclet near the base than the centre.

In the Kṣaribeda plates of Nala Arthapati bhattāraka (Plate No. XI, Serial No. 1) and Podagadh stone inscription of
Skandavarman (Plate No. XI, Serial No. 3) th is formed with a complete circle and a central dot on it. But in the Pándūvaṁśins and Ṣarabhapuriyas records th is having box-headed character and has an arch which forms an upturned boat shape at the base of the conical shape. In the kurud plate of Narendra (Plate No. XII, Serial No. 2) and Thakurdiya plate of Mahapravararaja (Plate No. XIII, Serial No. 3) of the Pándūvaṁśins record th is formed in the heart shaped without having any mark in the centre.

Whereas in the North Orissan inscriptions the circle is slightly typical with a central dividing line as seen in the Asanpāṭ Naṭarāja Image Inscription and records of the Vigrahas which is resembled to the northern variety of Gupta Brāhmi alphabet of the 4th - 5th centuries A.D. It is developed into a straight vertical line to right with two closely knit spheroids attached to the left, one below the other as seen in the copper plate grants of the Vigrahas (Plate No. XVII, Serial No. 3). In many more instances the loops are separated from the right vertical line. Sometimes another change is noticed in the letter where the base is sometimes flattened and sometimes slanting upward towards left holding the loop.

D: Different forms of head-marks such as thickened dot, horizontal line and thick triangle are used as the serif of the letter d from the 4th to the 7th century A.D. Orissan inscriptions. The earlier forms of sickle shaped practised here and in most cases the base line curved slightly in the middle. In some other instances it has double curve as particularly seen in the Tandivada plates of Prthivimahārāja (Plate No. X, Serial No. 2). The angular type of the letter is noticed in the records of Western Orissa of the period discussed in this chapter. Though the angular variety is also used in the records of Northern Orissa, sometimes a tick is added at the lower end of the letter. That type occurs in the records of the Dattas, Vigrahas and
also in the Jayarampur copper plate of Gopachandra (Plate No. XVII, Serial No. 1). The similar principle is also adopted in the Rajim stone inscription of Vilāsatun̄ga 73 (Plate No. XII, Serial No. 1) and Sirpur inscription of the time of Bālārjuna (Plate No. XV, Serial No. 2) of Western Orissa. The difference is found in the Soro plate of Somadatta (Plate No.XIX, Serial No. 1, 2) and Sumandala plate of the time of Prthivīvīgraha bhāṭṭāraka (Plate No. XVII, Serial No. 3) where its tip is turned up i.e. double curved d.

DH: A number of varieties of dh are obtained from the study of South Orissan inscriptions of the period under discussion. In the Koroshanḍā plates of Visākhavarman 74 (Plate No. VIII, Serial No. 1) and in the Tandivada plates of Prthivimahārāja dh has the usual inward curve in the base which is scholarly known as notched variety of broad dh (Plate No. X, Serial No. 2). It closely resembles with the letter dh used in the records of the Vishṇukunḍin, Pallava and western Chālukyan of 5th century A.D. In the Sirpur plates of Anantavarman dh is in quadrangular form standing height wise and the base line is notched (Plate No. V, Serial No. 3) like the western Chālukyan script of the 6th century A.D. 75

In the records of the Pāṇḍuvaṁśins and Sarabharpurīyas dh is of flattened top having box-headed character. While in the Rajim stone inscription of Vilāsatuṇ̄ga (Plate No. XII, Serial No. 1) of the Nala family and in the Sirpur plates of Mahāsudevarāja of the Pāṇḍuvaṁśins (Plate No. XII, Serial No. 3) dh is looked like the reverse form of the Roman capital letter ‘D’ but the top is flattened.

In case of Northern Orissa two different varieties of dh are

75. A. H. Dani, Indian Palaeography, New Delhi, 1986, pp. 189 ff.
obtained. The first variety is on the reverse form of Roman capital letter 'D' but the lower end is pointed like that of the Yaśodharman script of the 6th century A.D. In the other cases the letter is shaped more or less like an egg shape with flattened and thickened top as in the Central Indian Gupta Brāhmī alphabet of about the 4th century A.D. while the triangular form is obtained in the Datta records (Plate No. XIX, Serial No. 1, 2). The Deccani form of dh is sometimes found in the North Orissan inscriptions where the left arm is curved.

N: The horizontal head mark is used on the top left part of the vertical line of the letter in the records of Southern Orissa. Here the letter is composed of a vertical line and from its middle to the left a small horizontal stroke is added which is terminally forms a loop as seen in the Early Gaṅga records of the 6th - 7th centuries A.D. Another variety is found in the Tandivada plate of Pṛthivimahārāja where n is composed of a simple vertical line and slightly slanting towards right (Plate No. X, Serial No. 2). It has a small curved line on the left limb near its base like the Western Chalukyan n of the 6th century A.D.

Generally n is composed of a vertical line forming a loop at the base to left and curling beyond downwards to right. The letter having box headed serif on the top is found in the Kesaribeda plate of Nala Arthapati bhattachārka, year 7 which is related to the Gupta variety of eastern Malwa alphabet of the late 4th century A.D. and Vākāṭaka script of the 4th - 5th centuries A.D.

P: In the epigraphic records of Southern Orissa the notched variety of p is found where the left stroke is indented halfway up and the base line centrally curved. Here the solid triangular, thick dot or

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77. Ibid., p. 175 ff.
small horizontal line are used as the serif of $p$. This variety is seen in a number of inscriptions such as in the Banahalli plates of Krishnavarman II\textsuperscript{78}, mid 6th century A.D. Kanteru plates of Śālaṅkāyana Vijaya Skandavarman of the early 5th century A.D. and also in the inscriptions of Vishṇukunḍin Indravarman of the 7th century A.D. The letter became angular in the Ragolu plates of Saktivarman (Plate No. IV, Serial No. 3), Narasinghpalli plate of Hastivarman (Plate No. VIII, Serial No. 2) and Urlam plate of Hastivarman (Plate No. VII, Serial No. 3) of the early Gaṅgas of Kaliṅganagar of about the 5th - 6th centuries A.D.

Adopting this angularism of the letter the top half of the left stroke is indented and crowned with a box head in the records of the Nalas, Śarabhapurīyas and Pāṇḍuvarāṁśins (Plate No. XIII, XIV, Serial No. 1, 2, 3) where as the southern variety is obtained in the Podagadh stone inscriptions of Sakandavarman (Plate No. XI, Serial No. 3), Kesaribeda plate of Nala Arthapati bhaṭṭāraka (Plate No. XI, Serial No. 1) and Sirpur inscription of the time of Bāḷarjuna (Plate No. XV, Serial No. 2).

In the case of North Orissan epigraphic records two different forms of $p$ are noticed. In the first category the letter resembles the Roman capital letter ‘U’ with either horizontal or wedge serif on the left top. This is the curved type of $p$ and it is equal armed as seen in the Asanpāṭ Naṭarāja Image inscription (Plate No. XVI, Serial No. 2) which shows that it is influenced by the Gupta Brāhmī alphabet of the 4th - 5th centuries A.D. Similar type is also found in the Susunia rock inscription of Chandravarman\textsuperscript{79} of the 4th century A.D of Bengal. But in the inscriptions of the Dattas, Mudgalas and Vigrahas $p$ is in angular form having a serif on the

\textsuperscript{78} Ei., Vol. VI, pp. 18-19 f and plates.
\textsuperscript{79} Ei., Vol. XIII, p. 133 ff and plates.
top like the Eran boar inscription of Toramāṇa of the 6th century A.D. A slight difference is found in the Sumanḍala copper plate of the time of Pṛthivivigraha bhaṭṭāraka (Plate No. XVII, Serial No. 3) and in the Kaṇḍa plate of Bhānudattā (Plate No. XVIII, Serial No. 3) where the base line of the letter is slanting down to right. In some instances of the Sumanḍala copper plate of the time of Pṛthivivigraha bhaṭṭāraka the right vertical line is slightly prolonged downwards as exhibited in the Bodhgaya inscription of Mahānamāṇ (Gupta) year 269.80

PH: When the right arm of p is curved inward it takes the form of Ph in the records of the Māṭharas and Pitṛbhaktas of Southern Orissa. It is closely resembled with th used in the records of the Kadambas, Śālārīkāyana and Vishṇuṅkuṇḍin of the 4th - 5th centuries A.D. and also of the Maitrikas and Western Chālukyan script of the 6th century A.D. In some other instances the inward loop variety is also found. These two varietes are also prevailed in the Raypur copper plate of Rājā Sudevarājā (Plate No. XIII, Serial No. 2), Thakurdiya plate of Mahāpravaraṇājā (Plate No. XIII, Serial No. 3) of the Śarabhapuriyās and Rajim copper plate of Tivaradeva (Plate No. XIV, Serial No. 2) of the Pāṇḍuvamāṇs records of Western Orissa.

During the period under discussion the right arm of ph curves inward to form a loop touching the base line. Such variety is seen in the North Orissan inscriptions like the Gupta Brāhmī alphabet of the 4th century A.D. and in the records of the Yasodharman of the 6th century A.D.

B: In the records of the Māṭharas, Vāsiṣṭhas and Pitṛbhaktas along with other South Orissan inscriptions b is square in size but its

80. CII., Vol. III, pp. 276-77 f and plates
81. EL, Vol. XXII, pp. 15-23 ff and plates.
left arm is notched. In the Sruṅgavarapuṇakaṭa plates of Anantavarman (Plate No. VI, Serial No. 1) the left arm is deeply curved inward. Where as the left arm of square box is notched in the western variety. Like that of the North Indian Gupta Brāhmī alphabet \( b \) is more or less as a square in the North Orissan inscriptions from the 4th to 7th century A.D. The northern variety is also applied in the Rajim stone inscription of Nala king Vilāsatūṅga (Plate No. XII, Serial No. 1) but here the left arm is deeply curved and some cases its upper arm is notched.

In the case of Northern Orissa it is simply a square box and the top is opened with a central stroke across the belly. In some cases it has equal arm \( \& \) with a full length mid-line and its left arm is bent.

**BH:** Two different varieties of \( bh \) are found in the South Orissan epigraphic records of about the 5th - 6th centuries A.D. The first of this type has been adopted from the Kushāṇa, Ḍvārakā and Śātavāhana script of the 2nd century A.D. The letter has double bend like a bow having a small vertical stroke. Sometimes this vertical stroke emerges with the wedged head line.

The middle arm of \( bh \) is notched which is known as broad type. In the Ragolu plates of Śaktivarman (Plate No. IV, Serial No. 3) and Niṅgoṇdi grant of Prabhāṇjanavarman (Plate No. V, Serial No. 1) the vertical stroke is crowned by a wedged serif on the top. The stroke starts from the neck and slants down to right as in the northern - Gupta Brāhmī alphabet. The addition of horizontal bar is the only difference in the Tandivada plates of Prthivimahārāja (Plate No. X, Serial No. 2) of the 6th century A.D. Another variety is found in the Eastern Gaṅga records of the 7th century A.D. Where the horizontal head line is used as its serif and the left curve is slightly downwards. This variety is also seen in the Rithapur plate.
of Bhavadattavarman (Plate No. XI, Serial No. 2) and Podagadh stone inscription of Skandavarman (Plate No. XI, Serial No. 3). In the Śarabhapurīya records the body of the letter is rectangular in form and the base line is opened where as the vertical line to right is continued up and crowned by box-head on the top. In this type an angular hook is added on the bottom part of the vertical line on the left where as the horizontal line is slightly prolonged down.

**M:** In the records of Southern Orissa it has more or less rectangular belly and the two side stroke are cutting across and formed \( v \) above. In some cases the base line is more curved inward at the centre. In this form the left and right limb are thickened on the top. In one of the southern variety \( m \) is formed by a loop at the base and two strokes are added above the loop on each directions. Such type is seen in the records of the Nalas of Western Orissa. A number of varieties of \( m \) are obtained in the inscriptions of Western Orissa. Firstly the \( V \) shaped form is found in the Rithapur plate of Bhavadattavarman. Here the upper part of \( 'V' \) is to the extreme right and a square box is added in the top of the left part of letter (Plate No. XI, Serial No. 2) like the Kadamba and Vākāṭaka script of the 4th - 5th centuries A.D. In other cases it has almost bottom loop but the loop is quadrangular in size and tilted to the left. In other cases the mouth of the letter is opened which has a curve line at the left. The loop on the base became square in the records of the Pāṇḍuvamśins and Śarabhapurīyas. The right part of the loop goes upward which is crowned by a box head on the top and a short angular upward hook is added in the right.

Two different types of \( n \) are available in the North Orissan records of the 5th - 6th centuries A.D. In the first category it is an open mouthed square form and the base line is elongated to the left. The letter is crowned by a wedge serif in the left limb which is
known as tail variety of m as in the northern Gupta Brāhmī alphabet of the 4th - 5th centuries A.D.

In the second category the base line is slightly slanting down to right as seen in the Asanpāṭ Naṭarāja Image inscription (Plate No. XVI, Serial No. 2) and also in the records of the Mudgalas (Plate No. XVII, Serial No. 2) and Vigrahas (Plate No. XVII, Serial No. 3). Although the slanting base of m is found in the Sirpur inscription of the time of Bālārjuna (Plate No. XV, Serial No. 2) but the tail is turned into loop on the left as seen in the Tiwarkheda plates of Nannarāja of the 7th century A.D. of the region of Kathiwada and Central India.

Y: As studied from so many inscriptions of Southern Orissa discovered from different parts of the region, the tripartite form of y has been continued in the epigraphic records of the 5th - 6th centuries A.D. In such tripartite variety the left arm is curled inwards and that is most probably due to the influence of the epigraphic records of the Śālaṅkāyana of the 4th century A.D., Vishnukundin of the 6th century A.D. and Eastern and Western Chālukyan letter of the 6th - 7th centuries A.D. The curve on the left arm is turned into loop in the Tandivada plates of Pṛthivimahārāja (Plate No. X, Serial No. 2) of late 6th C.A.D. as in the Sruṅgavarapuṅkotā plates of Anantavarman (Plate No. VI, Serial No. 1) early of the 5th century A.D., Urlam plates of Hastivarman of the year 80 (Plate No. VIII, Serial No. 3) and Achyutapuram plates of Indravarman (Plate No. IX, Serial No. 1). Another variety is obtained where the letter is tripartite in form with the outward curl on the left arm as seen in the Urlam plates of Umāvarman, the year 80, Temburu plates of Umāvarman the year 40 (Plate No. VII, Serial No. 2), Narasinghapali plates of Hastivarman, the year 80 (Plate No VIII, Serial No. 2) and of the Early Gaṅgas of KaliṅGANagara.
The first variety of y in the South Orissan inscriptions is also applied in the Kesaribeda plates of Nala Arthapati bhattaraka, year 7 (Plate No. XI, Serial No. 1) and Podagadh stone inscription of Skandavarman (Plate No. XI, Serial No. 3). The tripartite angular form having box head serif is the special feature of y in the records of Western Orissa like the Kadamba and Vākāṭaka script of the 4th - 5th centuries A.D. Another peculiarity is found in the Sirpur inscription of the time of Balārjuna (Plate No. XV, Serial No. 2) of the Pāṇḍuvaṃśins where the letter is bipartite in form having traingular head mark on the top and a bend on the right vertical line.

Similarly in the contemporary period of the North Orissan inscriptions y is found in a different forms. In the Kaṇas plate of Lokavigraha the left half of y is curled inwards and the right (Plate No. XVIII, Serial No. 1) part of the base is slanted towards right where it is curled outward in the Asanpāṭ Naṭarāja Image inscription (Plate No. XVI, Serial No. 2). In another variety it is of the tripartite form with an inner loop on the left limb and the base is slightly slanting towards right as seen in the Jayarampur copper plate Gopachadra (Plate No. XVII, Serial No. 1). The bipartite form is found in the Soro plate of Śambhuyaśas (Plate No. XVII, Serial No. 2) and Sumanaḍala copper plate of the time of Prthivivigraha bhattaraka (Plate No. XVII, Serial No. 3) as well as in the records of the Dattas.

R: R is formed by an angular curve of the vertical line in the epigraphic records of Southern Orissa from the 4th to the 7th century A.D. It is resembled with the script of the Traikuṭas, Maitrikas and Vishṇukuṇḍins of the 5th - 6th centuries A.D. 82

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In the records of the Nalas, Sarabhapuriyas and Pāṇḍuvaṁśins the vertical line bent at the lower end and shoot up again paralleled half way to left. Another type is noticed in the Rajim stone inscription of the time of Vīlāsaturīga and in the Sīrputr inscription of the time of Bālārjuna. In such variety the lower end of the vertical line is triangularly thickened and crowned by a wedged serif on the top. While in the North Orissan inscriptions r is simply composed of a vertical line. In some cases the top of the vertical line is thickened while in other instances a thin horizontal line is used as the serif on top or the vertical line. These two types show that they had been influenced by the northern variety of Gupta Brāhmī alphabet.

L: The base line of l is either flattened or notched. The letter is curved in single action with the curve line of the vertical is deeper and its end is almost reaching in curved beak as seen in the Ragolū plate of Śakatīvarman (Plate No. IV, Serial No. 3) and Khoroshanda plate of Vīsākhavarman (Plate No. VIII, Serial No. 1).

In the records of the Māṭharas and Vāsishṭhas the top curve line encircles upto the parallel base line like the Śālankāyaṇa and Maitrika letters of the 6th century A.D. The first variety is applied in the Podagadha stone inscription of Skandavarman and Rithapur plate of Bhavadattavarman of the Nala records. In the Sīrputr inscription of the time of Bālārjuna the base line is curved upward and its hook shows an inner curl. The vertical line on the left is slightly bent as of the Vardhana and Pāllava records of the 7th century A.D. In the records of the Nalas, Pāṇḍuvaṁśins and Sarabhapuriyas the top curve line encircles upto parallel base line like the Śālankāyaṇa script of the 4th century A.D.

In the inscription of the Vigrahās, Dattas and Śambhuyaśas a left hook is added of the horizontal line. In some other instances
of the Datta and Vigraha records the wedged or horizontal line are used as the serif of the letter. In this case it has firm bases and the hook developed into downward curve line.

V: Two different types of \( v \) have come to notice from the study of South Orissan inscriptions of the 5th - 6th centuries A.D. The first category is borrowed from the earlier Ikshvāku letter of the 3rd century A.D. The letter has a median inward curve at the base line which is almost same with the script of Western Gariga and Pallava script of the 5th century A.D. and Western Chālukyan script of the 6th century A.D. In the second category the belly of \( v \) has the contour of a fig like the Eastern Chālukyan script of the 7th century A.D. \( V \) in the records of the early Garigas of kalinganagara is broad notched form where the right side is continued up and horizontal bar is used as the serif on the top of the vertical stroke. It shows the Telugu influence of the Eastern Chālukyan scripts of the 5th - 6th centuries A.D. The Canarase influence is also seen in the Ningonḍi plates of Prabhāfjanavarman of the Māṭhara records of the 5th - 6th centuries A.D. (Plate No. V, Serial No. 1)

In the records of Western Orissa it is rectangular in shape and the right arm continued up which is crowned by a square box on the top as seen in the Vākāṭaka letter of 5th century A.D.

\( V \) is an equilateral triangle which is crowned by a small wedge on the top (Plate No. XVIII, Serial No. 1, 2, 3) in the records of Northern Orissa which is closely resembled with the northern Gupta Brāhmī alphabet. In the records of the Vigrahas (Plate No. XVIII, Serial No. 1) and Dattas (Plate No. XVIII, Serial No. 2, 3) of Northern Orissa the letter is more or less triangular in shape and the top angle slightly chipped to take a thick serif on the top. The use of horizontal head mark only differentiates from the Jayarampur copper plate of Gopachandra (Plate No. XVII, Serial No. 1). That
variety is seen in the alphabet of the Traikuṭas and Maitrikas of the 5th - 6th centuries A.D. The northern influence is also seen in a number of Western Orissan inscriptions such as the Bāhmanī inscriptions of the time of Bharatabala (Plate No. XIV, Serial No. 1) and Sirpur Inscription of the time of Bāḷārjuna (Plate No. XV, Serial No. 2).

Ś: In the epigraphic records of Southern Orissa the flat top of ś is rounded. The left arm of ś is curved inwards in the records of the Mahārāja Satrudamana (Plate No. X, Serial No. 1) and also in the Tandivada plates of Pṛthivimahārāja (Plate No. X, Serial No. 2) like the Vishṇu kuṇḍin records of the 6th century A.D. while in the records of Western Orissa ś is of the horse shoe type with a horizontal bar in the middle and box headed on the top. The Rajim stone inscription of Vilāsaturīga (Plate No. XII, Serial No. 1) and Sirpur inscription of the time of Bāḷārjuna (Plate No. XV, Serial No. 2) adopt the northern formula. In this formula the top of the left limb curls into a loop and finally joined with the right limb. The left base of the letter is triangularly thickened.

In the epigraphic records of Northern Orissa it has both flattened and rounded top. It has triangular foot mark at the left limb as in g and the right arm is slightly lengthened downwards. In the Asanpāṭ Naṭarāja Image inscription it has rounded top and the right vertical line is lengthened downwards (Plate No. XVI, Serial No. 2) like the North Indian Gupta Brāhmī alphabet in about the 5th - 6h centuries A.D.

SH: In the South and Central Orissan inscriptions sh corresponds to p with the addition of a central stroke across the belly. The lower left arm of the letter is either bent or notched. The only difference between the Southern and Western sh is that where the thick

triangle or dots are added in the left top of the letter in the southern records, in the case of Western Orissa it has box headed top. The southern variation is noticed in the Podagadh stone inscription of Skandavarman (Plate No. XI, Serial No. 3) and Kesaribeda plate of Arthapati bhaṭṭāraka (Plate No. XI, Serial No. 1).

S: In the epigraphic records of Orissa from the 4th to 7th century A.D. s is composed of equal armed like Roman capital letter 'U' with a hook added in the left at its top. The difference is found in the Pāṇḍuvaṃśins and Šarabhapurīya records where s is angularly formed with the addition of a box-head on the top. The southern formation is obtained in the Terasingh plate of Tushiṅkāra (Plate No. X, Serial No. 3) and also in the Podagadh stone inscription of Skandavaraman (Plate No. XI, Serial No. 3) of Western Orissa. Another variety of openmouthed s is found in the Rajim stone inscription of Vilāsatunīga (Plate No. XII, Serial No. 1) and Sirpur inscription of the time of Bālārjuna (Plate No. XV, Serial No. 2) of the Pāṇḍuvaṃśins record of the 7th - 8th centuries A.D.

A number of different varieties of s are found in the North Orissan inscriptions from the 4th to the 7th century A.D. The first variety is almost same with the northern Gupta Brāhma alphabet where the letter is composed of a stroke and that starts with a wedge serif from either a loop or triangle to the left. The loop variety is found in the Asanpāṭ Naṭarāja Image inscription (Plate No. XVI, Serial No. 2) and Jayarampur copper plate of the time of Gopachandra (Plate No. XVII, Serial No. 1) In the Sumaṇḍala copper plate of the time of Prthivivigraha bhaṭṭāraka both the loop and triangular base on the left part of the letter are marked (Plate No. XVII, Serial No. 3) while a small inverted tick mark is added in the left bottom of the letter in the Kaṇas plate of Lokavigraha (Plate

The tick variety of \textit{s} is formed in the Soro plates of \textit{Sambhuyaśas} \(^{85}\) (Plate No. XVII, Serial No. 2), and also in the Soro plate of Somadatta year 15 (Plate No. XIX, Serial no 1, 2). In this type the letter is angularly formed and the hook hangs down from the wedged serif on the top.

\textbf{H:} In all the records of Southern Orissa ranging from the 4th to 7th century A.D. \textit{h} is more or less like its contemporary \textit{p} with the right vertical slightly shorter and curve down. The similar formula is used in a number of Nala records of Western Orissa except the Rithapur copper plate grant of Bhavadattavarman and Terasingh copper plate of Tushṭikāra. The letter with angular formation having box headed is added in the left limb of the letter in the Śarabhāpurīya records which resembles with the Vākātaka script of the 4th - 5th century A.D. In the North Orissan inscriptions \textit{h} is looked like the Gupta and post-Gupta Brāhmī alphabet. In the Asanpāṭ Naṭarāja Image inscription it is just an inverted question mark with a small serif on the top which is known as hooked variety of \textit{h}. In the records of the Dattas and Mudgalas \textit{h} is almost same like that of the Mandasor inscriptions of Yasodharman of the 6th century A.D. Here the left vertical line is not intended and almost same with \textit{p} with the right and bent down.

As studied from the above inscriptions in this chapter ranging from the 4th to the 7th century A.D, they are belonged to three categories on the basis of Palaeographical peculiarities. They are termed as southern, northern and western character. The styles tended to become localized and affiliated to the various cultural regions in the sub-continent. The scripts used in the records of the Vāsisṭhas and Pitrbhaktas generally belonging to the group of post-Gupta Brāhmī alphabet of the southern variety prevalent during

\(^{85}\) \textit{EI.}, Vol. XXIII, pp. 201-02 f and plates.
the 5th-6th century A.D. It resembles the archaic characters adopted in the records of other ruling families of South India such as Śālankāyanas, and the Vishnukanḍins. The cursive letters such as \(l, n, kr, jh, s, p\) appear to be more developed than the other letters of the records. Peculiarities are also found in the formation of certain letters and dissimilarity of \(t\) and \(n\) as seen in the Madras Museum plates of Anantaśaktivarman of Māṭhara family and Siripuram plates of Anantavarman of the 6th century A.D. In some cases \(t\) is looped and \(n\) is without a loop but with a curve while in other cases, the reverse forms of these letters have been noticed as seen in the records of the Śālankāyanas. Similar cursive letters such as \(l, n\), have also been found in the inscription of the early Eastern Gaṅgas of Kalinganagara. The later records of the Pitṛbhakta king Umāvarman have the thick-set duction writing. The characters tend to assume either a square or round shape. In some cases, the letters \(m\) and \(v\) in the earlier records of Umāvarman seem round as compared to those in his later grants. The similar palaeographic features are observed in the Peḍḍādugam plates of Mahārāja Satrudamana who is another early king of the southern part of Ganjam district of Orissa of the said age. The sign for \(v\) has been used to indicate \(b\) in some cases, although \(b\) is also present in the record. Here a thick wedge as in the case of \(a, ch, d, bh\) and \(h\) are noticed as the serif of the letter. The notched serif is found in some letters in the Srūṅgavarapukotā plates of Anantavarman of the Vasishthas although the letters are not in angular form. But in some instances a small horizontal line also come to notice such as \(a, k, t\) and \(r\).

Another king named Visākhavarman ruling round the Parlakhemnedi region in the southern part of Ganjam during the last part of the 5th century A.D. produced a copper plate grants which is closely related to the scripts of the Pitṛbhakta records.
of Kaliṅga family. The alphabet of the plates resembled that of the Peddavigi plates of the Śālankāyana king Nandivarman II and of the Brihatprostha grant of Umāvarman.

The square head marks shows another development in the Western Orissan inscriptions from the 4th to the 7th century A.D. The solid square growing into a broad rectangle and this head mark is placed centrally over the verticals. In some cases the small horizontal bar added in the left top of the letter as seen in a, k and t of the purle plate of Indravarman. Sometimes as in t, n, r, s the horizontal line added on the top of the letter. The notched head mark is noticed in case of n and ph of the Temburu plates of Umāvarman. The dissimilarity is to be noticed in the letter n, v and bh. Infact the northern influence is traceable in the open-mouthed type of n and t. The letters a, ā, k, r have a short curve at the lower ends of the vertical; kh with a broad looped base and l with a short upper curve. The northern form of e is employed in the Jirjing plate of Anantavarman.

The copper plates of the early Gaṅgas of Kaliṅganagara show a fundamental difference from the style of writing seen in the earlier groups. Their inscriptions reveal borrowings from the proto-Nāgarī and proto-Kannādi scripts of the Rāṣṭralakūṭas. The proto-kannādi influence is seen in k, r and l. Influences detected in the peculiar form of a where as the lower half of its right vertical is doubled and the left hook of which is optionally assimilated to the loop on this side. The influences of the style of writing is clearly marked in the notches of the letter p, ph, bh, m, y, v, dh, sh and h which show a unique form with its top mouth closed by the horizontal line.

The influence of the western Chālukyan letters of the 6th century A.D. is marked in the letter g where the right limb of g is
curved inward in the copper plate grant of Prthivimahārāja. The Canarese influence is seen in the letter t, ch, n, th, d, dh, n and bh. They used the box headed serif in the Rithapur plate of Bhavadattavarman while the charters used in the Kesaribeda plates of Nala Arthapati is the scooped out type of the southern variety of the so-called box-headed scripts prevalent in different parts of central India during the 5th - 6th century A.D. The characters are not of the angular type like those in the Rithapur plates of Bhavadattavarman and Kesaribeda plate of Arthapati bhattāraka. The looped variety is found like that of Vishnukundin and Pallava letters of the 6th century A.D. while the characters of the Podagadh inscription of Skandavarman belong to the Southern variety of alphabet and closely resemble those of the Talgundā pillar inscription of Kākustavarman and close to the Mandasor inscription of the Kumāragupta.

The tendency further results in turning the thick line into a square head mark as is seen in the Malava group of the early Gupta inscriptions. In the Podagarh stone inscription the top mark is just thick square as seen in g, r and s but in ch is holding thick horizontal head mark. In other words, the boxes are of the filled in type with the exception of only a few letters in the Sirpur plates of Sudevarāja which present scooped out or hollow southern characteristics are noticed in the curves at the lower ends of the letters a, ã, kn, and r with a round back and notch in the left limbs of p and b and occasionally in the upper horizontal line of j in the earlier records. The strange appearence of this alphabet is mainly due to the construction of the breadth and elongation of all the letters and the conversion of all the curves into an angular strokes. These characters bear a general resemblance to those of the Vākāṭaka records which are, however, some what less stylised and assignable to earlier date. The characters of the earlier records
such as the Pipardulā, kurud and Rawn plates of Narendra show less elongation and angularity as compared to those of the later records of the family indicating the direction of Palaeographical development. Another direction of the Sritual development was the extension of the top stroke of the box-head into short horizontal lines on either side of which the beginning are traceable in the records of Pravarrāja and the fully developed form is found in the copper plate grant of Tivaradeva.

In the case of $K, gh, ch, d, n$ two different styles of writing are produced in the inscriptions of the Śarabhapurīyas. In the Arang plates of Mahājayarāja and Raypur copper plate of the Rāja Sudevarāja the most noticeable difference is in the formation of the superscript long vowel $i$. This stroke is similar to an anusvara which distinguishes it from the short $i$. That is being placed not in the centre of the circle but in the right side of it, as part of the down stroke of the circle which is found in line - 2 on Vilāsini and in line - 4 on rāṣṭhriya. The kurud plates of Narendra though exhibits the box headed variety but closely resemble those of the Pipardula plates in having less angular forms. In the Thākurdiya plates the scripts are somewhat more elongated and angular than those of the Siwani and Riddhapur plates of the Vākāṭaka king Pravarasena III. Still later a local angular type developed in the Pipardula copper plate grant of Narendra which probably speaking, is a development from the solid square head mark. The head mark is long solid rectangle, placed on the top left of the vertical. This type may have been borrowed from the Gaṅgas of Kaliṅganagara. There is a definite change in these inscriptions from those of the Vākāṭakas. Firstly they copy only the later sub-variety of the Vākāṭaka inscriptions which exhibit a special preference for angularity and later by verticality of the letter forms. The influence which are traceable only to the Gurjara inscriptions of the 6th
century A.D. A still later survived of the hollow square type is seen in the Rajim plate of Tivaradeva. The Sarabhapurīya inscriptions must have derived this feature from the Gurjaras, whose influence probably reached this region after the fall of the Vākātakas.

All the letters show box-heads except only *i.e. n, j, n, b* and *l*. The characters of these inscriptions evince the tendency towards elongation and angularisation in a considerably more accentuated manner. The equalisation of all the verticals, turning of all the curves into sharp angles and the contraction of the breadth impart a peculiar appearance to this alphabet. The projection of the top line of the crowning box on both sides adds to strangeness of this alphabet. These tendencies are to be noticed in a more or less pronounced form practically in all the Pāṇduvamśins records but more particularly in the inscriptions of Śivagupta Bālārjuna. The special mention must be made in this context of the Mallār plates where the top line is so much projected on either side that in most cases the upper parts of all the vertical lines of a letter are joined together and look like emanating from the same horizontal line. The peculiarities of the southern alphabets are to be seen in a stereo typed manner in the left ward curves at the bottom of the initials *a, ā*, and the consonants *k, n* and *r* the notch in the left limb of the letters *gh, p, ph, b, l* and *h* and the round backed *d* which is clearly distinguished from *d* and the turning of the right vertical to the left of the letter. The Peculiarities are also seen in the Banda plates of Śivagupta in the letters *a, ā* and *kh* which show a superflours curve appended to the vertical on the right.