CHAPTER - 3

THE PALAEOGRAPHY OF
ORISSAN INSCRIPTIONS
FROM
CIRCA 7TH CENTURY A.D.
TO
CIRCA 10TH CENTURY A.D.
From the last quarter of the 6th century A.D. another tendency is marked in the Sailodbhava records of Northern Orissa. The Sailodbhavas established their rule over Koṅgoda¹ in the late 7th century A.D. and a number of sixteen copper plates were issued by them. The chief characteristic of their letters is that the right vertical limbs of the letter became slightly bent inwards. At the same instances because of this bending, this vertical makes an acute angle with the base line which shows the acute angle at the lower ends. The top of the line or the vertical invariably bear small wedges and their end show some ornaments on the right. This character of the whole group is called 'acute-angled' alphabet by Buhler. Furtherly the term 'nail headed'² was frequently applied to them and possibly the Indian terms "Siddhamātrikā" and "Kuṭīla" might have been used. From the first half of the 8th century A.D. to the middle of the 10th century A.D. the Bhaumakara dynasty in

¹ Koṅgoda as a geographical term or an administrative unit (Koṅgoda Maṇḍala) appears to have comprised modern Ganjam and Puri district and the Southern parts of Cuttack district. It appears as the capital of the Sailodbhavas.

² From the last quarter of the 6th century A.D. on the North Indian Inscriptions, the right vertical limbs of the letters become slightly bent inwards and due to ties bending the vertical makes an acute angle with the base line and Buhler's term 'acute-angled' alphabet. G. Buhler, Indian Palaeography, New Delhi, 1962, p 68 f.

³ The use of pen through out North India from 5th century A.D. marked a definite change of the head mark to the letters. It assumed the shape of a solid triangle called 'wedge' or 'nail-headed'.

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3. The use of pen through out North India from 5th century A.D. marked a definite change of the head mark to the letters. It assumed the shape of a solid triangle called 'wedge' or 'nail-headed'.
Tosali rose into eminence. The political condition of Tosali helped the Bhaumakaras to a great extent to establish and consolidate their rule in this region comprising Utkal, Odra and Koṅgoda. They have as many as many more copper plates in comparison to the lithic records. Though they follow the Śailodbhava formulas but the scripts are generally taken to be of the eastern variety of North Indian alphabets. Such variety is also used in the records of the Sulkis who ruled over the area of modern Dhenkanal district in the course of the 9th - 10th century A.D. and the Tuṅgas who ruled over the territory lying to the south of the

4. The Orissan epigraphic records indicate that since about 5th century A.D. onwards, Tosali was divided into two divisions, viz, Uttara (northern) Tosali and Dakshina (Southern) Tosali, the river Mahanadi being and the Orissan districts of Balasore, Mayurbhanj, Dhenkanal, Cuttack and Probably Keonjhar were included in the division of Uttara Tosali, Dakshina Tosali comprised the Orissan districts of puri and northern part of Ganjam, situated to the southern of the river Mahanadi, parts of puri and Ganjam districts formed the Kingdom of Koṅgodamanḍala of the Śailodbhava during the 7th and early part of 8th century A.D. which came again under the division of Dakshin Tosali during the rule of the Bhaumakaras.

5. Utkala denoted the Orissan districts of Balasore and part of Mayurbhanj during about the 7th century A.D. The Bhaumakaras seldom refer to this geographical unit in their records. This was included in the division of Uttara Tosali of their kingdom.

6. Though the name of this geographical unit occurs in several epigraphic records of the earlier period and in some of those belonging to the subordinate kings of the time of the Bhaumakaras their own records are silent about this name presumably, it denoted the coastal district of puri which came under the division of Dakshin Tosali during the Bhaumakara rule.

7. It may be noted that the meaning of the word 'Tuṅgas' include prominent, erect, high an elevation, height and mountain. This may perhaps be related to the hilly terrain in which the kings bearing this name established their domain.
Sulkis of Dhenkanal, Talcher area. However the Svetaka Gaṅgas ruled over the northern parts of Ganjam district of the time when the Śailodbhavas were in power. They are probably a collateral branch of the Gaṅgas of Kaliṅganagara. Their records are found not only from Dhenkanal and undivided Ganjam district of Orissa but also from Srikakulam district of Andhra Pradesh. Their inscriptions show a fundamental difference from the styles of writing seen in the earlier periods. Their square headed letters betray some influence from the Northern Deccan and their inscriptions reveal borrowings from the proto-Nāgarī and proto-Kannāḍi scripts of the Rāṣṭrakūṭas. Though the letters from the 7th to the 10th century A.D. show the regional differences as northern and southern but in same instances their co-relation is also observed. A detailed palaeographic development of each alphabet from the 7th to the 10th century A.D. discussed here.

A: In the form of initial ā, a fundamental change has been seen in the Śailodbhavas records of the 7th century A.D. Here the left limb hangs down which ends in a hook open to the left and a straight vertical line is placed on the right. In between the left and right limbs a horizontal line is added as seen in the Apfsad inscription of Ādityasena of the late 7th century A.D. The old variety is used in the Ganjam grant of Daṇḍimahādevi where the short left limb hangs down from either triangular or horizontal head mark and ends in a hook opening to the left (Plate No. XXVIII, Serial No. 3). Including these features a small horizontal bar is attached in the starting point of the left curve line and it extends towards right to meet the right vertical line. In some cases as in the Baud grant of Tribhuvanamahādevi the left vertical line became as arch and from its centre in the right side a small horizontal line is slanting towards

right which is joined with the right vertical line. This is resembled to the script used in the Pala records of the 9th century A.D. The difference is found in the Ganjam grant of Daṇḍimahādevi where the letter is formed from the centre of the right vertical line and a small line is joined with two arms which are curved into a shape resembling the Arabic numeral 3 like the Rāṣṭrakūṭa script of the 9th century A.D. The first variety of Bhaumakara a is also found in a number of other contemporary inscriptions such as Nalanda stone inscription of Yasovarman, early 8th century A.D. of the Middle Ganges Valley and Barah copper plate of Bhojadeva of Central India and Rajasthan.

In the records of the Gaṅgas of Svetaka and Gaṅgas of Kāliṅ ganagara the horizontal head mark is clearly prominent. Two different forms of a are noticed in these period. In the first variety it has a hook towards left on the right vertical line and a short tick mark is added in the left vertical line. That formula shows as it is borrowed from the earlier records of the Eastern Chālukyan script of the 6th century A.D. The second variety is almost the same with the Śailodbhava style of the 7th - 8th centuries A.D.

Ā: The long ā has an additional hook attached to the right limb of a in the records of the Śailodbhava like that of the Nalanda stone inscription of Yasovarman, early 8th century A.D. But peculiarity

11. JASB., 1894, pp. 53-58 ff and plates.
12. EI, Vol. VI, pp. 140-42 ff and plates
14. EI, Vol. XX, pp. 43-44 f and plates.
15. This region includes the greater portion of modern Bihar and Uttar Pradesh. It's influences reached as far as South and the forest regions of the Vindhyān belt.
is found in the Kondedda grant of Dharmarāja\textsuperscript{17} where the upward hook is added in the middle part of the right limb (Plate No. XXV, Serial No. 3) as prevalent in the Central Indian script of the contemporary period. In the records of the Bhaumakaras two different forms of a are obtained. The first category is almost the same with the primary type, adopted in the Sailodbhavas records which is seen in the Neulpur grant of Subhakara\textsuperscript{18} (Plate No. XXVII, Serial No. 2). In its second variation a dash is added and that became a line parallel to the vertical stroke as that of the Pāla and Pratihāra script of the 9th century A.D.

In the Kalahandi plate of Anantavarman Vajrahasta\textsuperscript{19} of the Gaṅgas of Svetaka record ā is formed by the addition of a short line on the right top part of a (Plate No. XXIII, Serial No. 2). Where as two different varieties are observed in the records of the Gaṅgas of Kaliṅ ganagara, one is the earlier form with the addition of a short tick mark on the right vertical line as seen in the Chicacole plates of Devendravarman\textsuperscript{20} (Plate No. XXI, Serial No. 2) and Sudeva plates of Anantavarman\textsuperscript{21} (Plate No. XXI, Serial No. 3). In the second variety it is the addition of a vertical line on the right part of the initial letter a as found in the plates of Rājarāja I Devendravarman (Plate No. XXIV, Serial No. 1) like the Pāla and Pratihāra script of 9th century A.D.\textsuperscript{22}

I: There is a definite change of initial vowel i in the Palaeography of Orissan inscriptions about the 6th - 7th centuries A.D. Generally

\textsuperscript{17} EL, Vol XIX, pp. 265-71 ff and plates.
\textsuperscript{18} EL, Vol. XV, pp. 1-8 ff and plates.
\textsuperscript{19} EL, Vol. XXXI, pp. 317-22 ff and plates.
\textsuperscript{20} JASBL., Vol. XVIII, No. 1, pp. 17-22 ff.
\textsuperscript{21} EL, Vol. XXVI, pp. 65-68 ff and plates.
\textsuperscript{22} C. Sivaram Murti, \textit{Indian Epigraphy and South Indian scripts}, Madras, 1952, pp. 59-60 f and plate.
it has two circles and a curved tail below the circles as seen in the inscriptions of the Magadha Maukharis of the Middle Ganges Valley. In the Purushottampur plates of Mādhavarman II Srinivāsa the lower line is curved down (Plate No. XXIV, Serial No. 2) where as the tail is more lengthened towards right in the Kondedda grant of Dharmarāja (Plate No. XXV, Serial No. 3). Here the letter simply indicates that the copper plate is carelessly written. It may be the mistake of the engraver because this type of writing does not come to our notice from the Palaeographical study of other inscriptions. It has been changed in the Bhaumakara records where the letter has two circle below the top horizontal line. It is simply changed in the Baudh grant of Tribhuvanamahādevi (Plate No. XXVIII, Serial No. 2) where the horizontal line is replaced by a thick triangle like the Pala script of the 9th century A.D. Similar style is also seen in the Khalimpur copper plate of Dharmapāla and Mainamati plates of the 8th century A.D. In another form it is represented by two ringlets placed side by side with a horizontal bar above them.

In the Indian Museum plates of Gaṅga Indravarman (Plate No. XX, Serial No. 3) and Kalahandi plates of Anantavarman Vajrahasta (Plate No. XXIII, Serial No. 2) is exactly same with the form of used in the records of the Śailodbhavas. Here the letter is composed of a sign like an interrogation mark without the dot below turned at an angle of 90° to the left with two circle a little above the curved head. But the curve line is not upward in

the Rāṣṭrakūṭa and Pratihāra script of the 9th century A.D. The
difference is noticed in the Svalpa-velura grant of Anantavarman29
where the two circles are placed on two sides of the triangle (Plate
No. XX, Serial No. 2) but in the records of the Palas the triangle is
at the top. The second variety of Śailodbhavas ॐ is applied in the
Andhavaram plates of Anantavarman30 (Plate No. XXII, Serial No. 2).
In the Sudeva plates of Anantavarman31 of the Gaṅga year 204 ॐ is
formed by two dots below the double curved line (Plate No. XXII,
Serial No. 1) like the eastern Chalukyan Script of the 7th century
A.D. where as the dots are transformed into loop in the Galavalli
plates of Rajaraja I Devendravarman32 (Plate No. XXIV, Serial No.
1).

U: It is found in very few circumstances of the Śailodbhava records of
the 7th century A.D. as particularly found in the Banapur plate of
Dharmarāja Māṇ abhita33 (Plate No. XXV, Serial No. 1). Here the
base is curved downwards to left like in the Barah copper plate of
Bhojadeva (Vikrama) year 89334 of Central India and Rajsthan. In
the records of the Bhaumakaras the shape of the letter some
what Partially tends to resemble the Arabic numeral 3 (three). This
variety is also found in the Kanaswa inscription of Sivagana35 and
Buchkal inscription of Nāgabhaṭa36 of Central India. In most of
the Bhaumakara inscriptions the lower curve of u is more upwards.
Sometimes a small vertical hangs down from the horizontal head

31. JAHRS, 3 and 4, pp. 273-75 ff.
34. EL, Vol. XIX, pp. 17-18 f and plates.
line and a curve line is on the lower left part of the letter as seen in the grants of Daṇḍimahādevī (Plate No. XXVIII, Serial No. 3). But in the Santiragrama grant of Daṇḍimahādevī\(^{37}\) it is completely the Arambic numeral 3 with the addition of a horizontal bar on the top (Plate No. XXVIII, Serial No. 3).

A number of different varieties of \(u\) are observed from the study of the Gaṅgas of Svetaka and Kaliṅganagara records. The initial \(u\) is a semi-circle notched below towards right like the eastern Chālukyan script of the 10th century A.D. This variety is also seen in the Gautami plates of Gaṅgas Indravarman\(^{38}\) (Plate No. XXI, Serial No. 1). In the second category a short vertical stroke hangs down from the short horizontal line and lower end of the vertical line is bent into a broad curve to the left. This variety occurs in the Kalahandi plate of Anantavarman Vajrahasta (Plate No. XXIII, Serial No. 2) and Svalpavelura grant of Anantavarman (Plate No. XX, Serial No. 2) of Svetaka Gaṅgas and Tekkali plates of Anantavarman\(^{39}\) of the Gaṅgas of Kaliṅganagara records.

The third variety looks like an Arabic numeral 3 with the addition of a horizontal line on the top which is the special feature of North Indian records of the 8th - 9th centuries A.D. In the Chicalole plate of Devendravarman (Plate No. XXI, Serial No. 2) the base line is extended towards right and it is more longer than the upper as seen in the Pattadakal inscription of the Rāshṭrakūṭa Dhruva\(^{40}\), late 8th century A.D. and also in the Ipur plates of Viśṇuvardhana III\(^{41}\) and Eduru plates of Viśayāditya\(^{42}\) of the early


\(^{38}\) EI., Vol. XXIV, pp. 180-83 ff and plates.

\(^{39}\) EI., Vol XXVI, pp. 174-77 ff and plates.

\(^{40}\) IA, Vol. XI, p. 125 ff.

\(^{41}\) EI., Vol. XVIII, pp. 59-60 f and plates

\(^{42}\) EI., Vol. V, pp. 120-21 f and plates.
8th century A.D. of Andhra and the neighbouring areas. Both northern and southern influence are clearly marked in the letter u used in both these records.

**E:** In the copper plate grants of the Šailodbhavas of the 7th century A.D. e has the base of a triangle at the top (Plate No. XXIV, Serial No. 2, 3) as it is found in the Spurious Gaya plate of Samudragupta, mid 7th century A.D. The letter still retains the Šailodbhava formula in the records of the Bhaumakaras of the 8th - 9th centuries A.D. A slight variation is noticed in the Baud grant of Tribhuvanamahādevi (Plate No. XXVIII, Serial No. 2) year 158 where the vertical stroke to the right is little lengthened like the Pāla and Rāṣṭrakūṭa script of the 9th century A.D. The northern variation of triangular form is applied in the available records of the Svetaka Gaṅga grants like in the Mandasor inscription of Yasodharman and Kanaswa inscription of Sivagaṇa of Central India and Rajasthan belongs to the 8th century A.D.

**K:** K is usually seen in the newer form in the copper plate grants of the Šailodbhavas where the curve line on the left of the vertical growing into a triangular loop (Plate No. XXV, Serial No. 1, 2, 3). Sometimes the right curve line developed into a downward tick mark and in some cases it lengthens into bend vertical. The right curve line is omitted by a horizontal line in the Banapur plates of Ayasobhita Madhyamarāja (Plate No. XXIV, Serial No. 3) but in the Banapur plates of Dharmarāja alias Māṇ abhita (Plate No. XXV, Serial No. 1) it is simply a downward tick as seen in the Bodhgaya inscription of Mahānamāṇ (Gupta) year 269 of the

Middle Ganges Valley. The Nāgarī style is occurred in the Purushottampur plate of Mādhavārman II (Plate No. XXIV, Serial No. 2) which is closely related to the Nalanda stone inscription of Yasovarman. In the Bhaumakara records of Northern Orissa two different varieties of $k$ are obtained. In the first variety $k$ is somewhat the looped variety with a downward curve line on the right. Sometimes the lower end of the vertical line shoots up a little to form an angle and the cross stroke curve out at the tip. The cross stroke flows right obliquely in the Dhauli cave inscription of Śāntikaradeva (Plate No. XXVII, Serial No. 3). In the second type the vertical line is more lengthened downward as parallel to the base loop but in some other cases both the vertical and right curve line become slightly slanting towards right as seen in the Pāla and Rāṣṭrakūṭa records of the 8th - 9th centuries A.D. In most of the cases of the Svetaka Gaṅga records $k$ is of the looped variety with a prominent horizontal line on the top and the letter is either rounded or dwarfish in nature. Here the cross stroke is joined with the compressed hook shaped vertical stroke which create a rectangular shape for the letter. Its later modification is found in some other circumstances when the serif changed into two strokes and meet at a point on the central cross bar and circle beneath it. The earlier looped variety of $k$ is also adopted in the records of the Gaṅgas of Kalin ganagara except the use of horizontal head mark on the top. It has some close resemblance with $k$ used in the Jayarampur copper plate grant of Gopachandra of the 7th century A.D. (Plate No. XVII, Serial No. 1) which shows that as it is influenced by the North Orissan alphabet of about 7th century A.D.

**KH: Kh** with flattened top is found in the records of the Śailodbhavas of the 7th century A.D. It shows the triangular foot mark at the left

limb where as the right limb has the hollow triangle on the inner side of the letter. This variety is particularly prevailed in the Banapur plates of Ayasobhita Madhyamarāja (Plate No. XXIV, Serial No. 3) and Kondedda grant of Dharmarāja (Plate No. XXV, Serial No. 3). In some other circumstances the angular shape of the lower triangle is rounded. These two varieties are seen in the Apsad inscription of Ādityasena of the late 7th century A.D. of the Middle Ganges Valley region. The angularism of the letter became roundish in the Chāndaśvara plates of Māṇabhita Dharmarāja (Plate No. XXV, Serial No. 2). In this variety the mouth of the triangle on the outside of the right limb is opened and the top of the letter is also rounded. That shows the engravers interest towards beautification of the letter. Such variety is found in the Tiwarkheda plates of Nannarāja of the 7th century A.D. of central India.

Two different varieties of \textit{kh} developed in the records of the Bhāumakaras of the 8th - 9th centuries A.D. The first is the rounded top and prominently shows the triangular foot mark on the left limb. Sometimes the right part of the triangle assumes the shape of a half leaf as seen in the Terundia plates of Śubhākara II (Plate No. XXVIII, Serial No. 1). The form of \textit{kh} changed in the records of Daṇḍimahādevi. Firstly the curve line is prolonged downwards from the right part of the triangle and the top end of the letter bent downwards to left assuming the shape of a shovel while the right part took the shape of a half - leaf. Which is resembled with the Rāṣṭrakūṭa script of the 9th century A.D. In the Baud Grant of Tribhuvanamahādevī year 158 (Plate No. XXVIII, Serial No. 2) the top of \textit{kh} is rounded but takes the bean shaped arm like that of the Pāla script of the 9th century A.D. In the records of the Gaṅgas

of Sevetaka two different varieties of \textit{kh} are found. In its first form it has flat top with either circular or triangular foot mark in the left limb. In the Ganjam plate of Jayavarmadeva\textsuperscript{50} it is of the quadrangular or broad loop base and the left limb is slightly curled inwards (Plate No. XIX, Serial No. 3). In the second variety \textit{kh} is an outward open mouthed triangle and it is joined by a bar to the right vertical line. It has also a circular looped base at the left limb as seen in the plate of Ranaka Jayavarmadeva (Plate No. XX, Serial No. 1) and Indian Museum plates of Gaṅga Indravarman (Plate No. XX, Serial No. 3). The southern variety is visible in the Sudeva plate of Devendravarman\textsuperscript{51} (Plate No. XXI, Serial No. 3) and Anantavarman\textsuperscript{52} (Plate No. XXII, Serial No. 3) where the letter is composed of a broad triangular base. But in the Alamanda plate of Anantavarman\textsuperscript{53} (Plate No. XXII, Serial No. 3) the left curve line is curled inward.

\textbf{G:} Of all the Śailodbhava copper plate grants two basic formulas are used in the case of letter \textit{g}. Firstly it is formed either with flat or round top with triangular foot mark on the left limb as seen in the Banapur plate of Dharmarāja (Plate No. XXV, Serial No. 1) and Tekkali plates of Madhyamarāja (Plate No. XXVI, Serial No. 1) like the Aphsad inscription of Ādityasena and Deobarnark inscription of Jivitagupta II\textsuperscript{54} of the late 7th century A.D. The triangular foot mark became rounded in the Purushottampur plates of Mādhavarman II Srinivāsa (Plate No. XXIV, Serial No. 2). In the records of the Bhaumakaras \textit{g} has both flat and round top with triangular or loop base on the left. Here the top is more flattened

\textsuperscript{50.} \textit{EI.}, Vol. XXIII, pp. 267-69 ff and plates.
\textsuperscript{51.} \textit{EI.}, Vol. XXVI, pp. 62-65 ff and plates.
\textsuperscript{52.} \textit{Ibid.}, pp. 65-68 ff.
\textsuperscript{54.} \textit{CK.}, Vol. Ill, pp. 215-17 ff and plates.
and the right arm is straightened as presented in the Santiragrama grants of Daṇḍimahādevī (Plate No. XXVIII, Serial No. 3). In some instances the left arm is curved which resembles a shovel like that of the Rāṣṭrakūṭa script of the 9th century A.D. The right arm is slightly slanting towards right in the Neulper grant of Śubhākara (Plate No. XXVII, Serial No. 2) and Baud grant of Tribhuvanamahādevī (Plate No. XXVIII, Serial No. 2). A number of three different varieties of \textit{g} are noticed in the records of the Svetaka Gangas. The first is the round top with its right limb extended as in the Chālukyan and Rāṣṭrakūṭa script of the 9th century A.D. where as in the second variety the left arm is curled inward. In the third of its kind the left vertical bar is curved inwards but in the plate of Rāṇaka Jayavarmadeva it takes the form of loop (Plate No. XX, Serial No.1) where as in the copper plate grant of Rājarāja I of Devendravarman of the Gaṅgas of Kaliṅganagara the loop is omitted by a simple curved line (Plate No. XXIV, Serial No. 1).

\textbf{GH:} In the records of Northern Orissa as used by the Šailodbhavas \textit{gh} is formed by dividing the sloping base line into left and right half. The left half of the letter is curved while the right half is acute angled (Plate No. XXV, Serial No. 1, 2, 3). In the Banapur plate of Ayasobhita Madhyamarāja the curve part is slightly raised upward (Plate No. XXIV, Serial No. 3). In some cases the top of the left stroke is thickened but in the Tekkali plate of Madhyamarāja the prongs have a triangular nail head mark on the top (Plate No. XXVI, Serial No. 1) like the Nāgarī alphabet used in the Western Chālukyan records of the 8th century A.D. As from the study of North Orissan inscriptions from the 8th to the 10th century A.D. two different types of \textit{gh} are obtained. In the first variation three prongs of the letter continued with the addition of a triangular serif on the top of the left limb. In other variety the serif became a larger horizontal mark and that touches the top of the both arms.
In such type right vertical line is bended in the middle. Its existence is very rarely seen in the records of Southern Orissa. In the Galavalli plates of Rājarāja I Devendravarman (Plate No. XXIV, Serial No. 1) the letter has a full top stroke like the Pala script of the 9th century A.D. From the 8th century A.D. onwards on the Orissa inscription the bipartite form is also noticed where the central stroke of gh dwindled and the left stroke bulging out which recedes to form the counter of a crude animal head.

**CH:** The beaked form of *Ch* is found in the Banapur plates of Ayasobhita Madhyamarāja. The belly of the letter is just an half orange cell and the vertical stroke appears again which slightly projects downwards. (Plate No. XXIV, Serial No. 3). In this variety the triangular head mark is used as the serif of the letter. Sometimes it looks like *v* of the earlier period. In the Bhaumakara records the nail head as well as horizontal bar are used as the serif of the letter *ch*. The letter is almost the same as of the Śailodbhava forms as it is borrowed from their style of letters belonging to the 7th - 8th centuries A.D. It resembled with the pala and Rāshṭrakūṭa type of the 9th century A.D. Another variety developed in the Bhaumakara periods which is known as tail variety as found in the Nalanda stone inscription of Yasovarman of the early 8th century A.D.  

**CHH:** In the epigraphic records of the Śailodbhavas *chh* is more or less a circle or ellipse laid on its back divided into equal halves by a straight or slightly curvilinear line (Plate No. XXIV, Serial No. 2 and Plate No. XXV, Serial No. 1, 2, 3). The horizontal base is used as the serif of *chh*. The vertical line is slightly slanting down to right in the records of the Bhaumakaras (Plate No. XXVIII, Serial No. 1, 2, 3). In the Gaṅgas of Svetaka grant of Jayarāmapadeva

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(Plate No. XX, Serial No. 1) it has double loop and the left loop is bigger than the right where as in the Chicacole plate of Devendravarman (Plate No. XXI, Serial No. 2) the right arm is bigger than the left. Another variety is found in the Sudeva plates of Anantavarman of the Gaṅga year 204 where it has double loop but its stem is on the left as it is borrowed from the Western Gaṅga script of the 6th century A.D. The early Nāgarī form is seen in the Tekkali plates of Anantavarman (Plate No. XXIII, Serial No. 1) where the circle laid on its back divided into two equal halves by a slightly curvilinear stroke with a top serif and small downward projection like the Rāṣṭrākūṭa script of the 8th century A.D.

In most of the Śailodbhavas copper plate grants the upper arm is straight while the middle and lowest arm is curved downwards. In the Banapur plate of Ayasobhita Madhyamarāja (Plate No. XXIV, Serial No. 3) the lowest arm is curved down and turned into a hook at its end. A number of different varieties are occured in the inscriptions of the Bhaumakaras. In the Bhairava image inscription of Vatsādevi 56 (Plate No. XXVI, Serial No. 2) and Khadipada image inscription of the time of Śubhākara 57 (Plate No. XXVI, Serial No. 3) it folds the old style though the middle and lower arms are slightly slanting towards right. It is more pronounced in the Neulpur grant of Śubhākara deva with the addition of a wedge serif on the top. In the Dhauli cave inscription of Śaṅtikara deva the lowest curve line turned into a hook (Plate No. XXVII, Serial No. 3) as it resembles with the Banapur plate of Ayasobhita Madhyamarāja (Plate No. XXIV, Serial No. 3). In some other instances as particularly seen in the Santiragram grant of Daṇḍimahādevi j has three arms, out of three arms the upper arm merged with the head mark and the middle arms of j are prolonged down (Plate No. XXVIII, Serial No.

3) like that of the Sailodbhava script of the 7th - 8th centuries A.D. The peculiarity is occurred in the Ganjam plate of Mahārāja Jayavarmadeva (Plate No. XIX, Serial No. 3) and Nāpitavatataka grant of Devendravarman (Plate No. XXIII, Serial No. 3). In these two records the upper arm is curved outward from the top vertical line and the lower arm is bent as the eastern Chālukyan script of the 10th - 11th centuries A.D. The earlier formula is practised in the Chicacole plates of Devendravarman (Plate No. XXI, Serial No. 2) and Andhavaram plates of Anantavarman (Plate No. XXII, Serial No. 2) but in the Alamanda plates of Anantavarman the upper arm is extended little to left which looks like the addition of a horizontal bar on the left part of the upper most arm (Plate No. XXII, Serial No. 3). Another variety come to our notice in the plates of Rājarāja I Devendravarman (Plate No. XXIV, Serial No. 1) where the letter is composed of a vertical stroke with the horizontal serif on the top and above the middle bar the letter looks like Roman Capital letter T on S. Here the top end of the letter is lengthened downwards but in the Sudeva plates of Anantavarman, Gaṅga year 204 and Chicacole plates of Devendravarman the upper and lower arms are waved.

In the majority of the records of Svetaka Gaṅgas and Gaṅgas of Kaliṅganagara the type of j is borrowed from the Eastern Chālukyan Inscriptions of the 7th century A.D.60

T: There is no change of ŋ in the Sailodbhava copper plate grants of the 7th - 8th centuries A.D. The earlier formula is used in the Neulpur grant of Subhākara (Plate No. XXVII, Serial No. 2) while a short vertical stroke is added on the top of the half circle opening

60. A. H. Dani, Indian Palaeography, New Delhi, 1986, p. 191ff.
towards right in the Khadipada image inscription of the time of Šubhākara (Plate No. XXVI, Serial No. 3). The complete form looks like the countour of a half pot. In the copper plate grants of Daṇḍimahādevī (Plate No. XXIX, Serial No. 1) the back of the earlier ꝏ bent double and a short vertical line is added on its top. In sometimes the upper bend touches the horizontal serif and a vertical line is added on the right. In the Ganjam grant of Daṇḍimahādevī (Plate No. XXIX, Serial No. 1) a slanting bar is attached in the joint section of the lower and upper curve line as seen in the Mainamati plates of the 8th century A.D. of Bengal. The earlier form is applied in the Ganjam plate of Mahārāja Jayavarmadeva (Plate No. XIX, Serial No. 3), svalpa-velura grant of Gaṅga Anantavarman (Plate No. XX, Serial No. 2), Indian Museum plates of Gaṅga Indravarman (Plate No. XX, Serial No. 3) and in the Gautami plates of Gaṅga Indravarman (Plate No. XXI, Serial No. 1) the top end of earlier ꝏ shoots up as a prominent vertical line which shows that as it is influenced by the Eastern Chālukyan script of the 10th century A.D. The North Indian formation is visible in the plate of Rāṇaka Jayavarmadeva where the half circle is divided into double bend and a curve line is added on the right (Plate No. XX, Serial No. 1). In the Tekkali plates of Anantavarman (Plate No. XXIII, Serial No. 1) it is of the Svetaka form where as in the plate of Rājarāja I Devendravarman the half circle is transformed into double bend (Plate No. XXIV, Serial No. 1). Another variety is found in the Chicacole plate of Devendravarman (Plate No. XXI, Serial No. 2) and Andhavaram plate of Anantavarman (Plate No. XXII, Serial No. 2) where the base line is bent double like the Rāṣṭrakūṭa script of the 9th century A.D.

**TH:** Th retains the same form of the earlier order in the Sailodbhavas and Bhaumakaras records from the 7th to the 10th century A.D. The peculiarity is found in the Khadipada Image Inscription of the time of Subhākara where a triangular head mark is used on the top of the circle. Though it is the one form in all the records of the Bhaumakaras but the lower base of the circle is pointed (Plate No. XXVI, Serial No. 3).

**D:** The length of the lower leg of earlier d considerably reduced in the Sailodbhavas grants. It became angular in shape in the Terundia plate of Subhākara (Plate No. XXVIII, Serial No. 1) and Neulpur grant of Subhākaradeva (Plate No. XXVII, Serial No. 2). In some instances of the Bhaumakara records the lower part of d is more prolonged downwards while in other instances the lower leg is considerably reduced and its back is slightly rounded as seen in the Khalimpur and Mainamati plates of the 8th century A.D. In the Gaṅgas of Svetaka grants d is of the angular form where the lower line is lengthened or rather notched and added by a horizontal bar on the top as seen in the northern variation of Rāṣṭrakūṭa letter of 9th century A.D. In the copper plate grants of the Gaṅgas of Kaliṅganagara the back of the letter is rounded and become double bend in the Chicacole plates of Gaṅga Devendravarman (Plate No. XXI, Serial No. 2) which shows the Canarese influence of the 9th century A.D. In the Nāpitavataka plate of Gaṅga Devendravarman the end of d is slightly curled inwards (Plate No. XXIII, Serial No. 3) which clearly signifies that the letters were influenced by the Telugu alphabets of the 10th century A.D.

**DH:** The round backed form of dh is obtained in the records of the Sailodbhavas of the 7th - 8th century A.D. It has curved base and the right end of the letter is curled as its later development of the

Telugu-Kannada\textsuperscript{64} and Grantha\textsuperscript{65} scripts. Sometimes the base is notched like the South Indian alphabet of the contemporary period. In all these varieties horizontal head work is used as the serif of \textit{dh}. In the Bhaumakara records it has round back as of the earlier period and the curl towards the right end.

\textbf{\textit{Ph}} is not found from the study of the existing copper plate grants of the Svetaka Gaṅgas of the 7th - 8th centuries A.D. The proto-Nāgarī variety is also obtained in the records of the Gaṅgas of Kalinganagara. It has round back and the right end of the letter is curled and more pronounced as seen in the Maitrika inscription of the 7th century A.D. In the plate of Rajaraja I Devendravarman (Plate No. XXIV, Serial No. 1) the curl is turned into loop by touching the base line.

\textbf{\textit{N}}: Generally \textit{n} is of the Kausāmbī style of open mouthed form and the outer curves of the letter are slightly prolonged downwards. In other way it may be said that it is composed of a small horizontal

\textsuperscript{64} From the southern style of Brāhmi, a new script evolved in the 5th century A.D. In the regions of Maharashtra, Bijapur, Belgaum, Dharwad, Karwar, Southern parts of Hyderabad, North eastern parts of Madras and in certain parts of mysore, the Telugu - Kannada script developed. Kannada retained some of the earlier characteristics where as Telugu marked a complete change. The records written both in Telugu and Kannada languages are found described in the same script and hence the script in termed as Telugu - Kannada. Telugu envolved from 1200 A.D. to 1600 A.D. that is Kakatiya to Vijayanagara periods.

\textsuperscript{65} The earlier form of the Grantha lipi was developed from the southern Brāhmi in the 7th century A.D. It was used for writing newscripts in Sanskrit. Therefore it was called 'Grantha lipi' and was popular in the Madras State. It developed from 5th to 14th century A.D. The later Grantha lipi is an out some of the old one and the Malayalam and Tulu scripts have evolved from it.
line with both ends rising vertically and curving out in opposite
directions as adopted in the Samaṅgada plates of Dantidurga\textsuperscript{66} and Paithan plates of Govinda III\textsuperscript{67} of the 7th - 8th centuries A.D. of central India. The horizontal line is omitted in the Chandesvar plate of Māṇabhitā Dharmarāja (Plate No. XXV, Serial No. 2) and the Tekkali plate of Madhyamarāja (Plate No. XXVI, Serial No. 1).

We have noticed other varieties of \textit{n} in the records of the Bhaumakaras. In the Neulpur grant Śubhākara it is open mouthed with its base sloping towards right (Plate No. XXVII Serial No. 2). Both the left and right arms are slightly slanting towards right. In the Terundia plate of Śubhākara II (Plate No. XXVIII, Serial No. 1), Baud grant of Tribhuvanamahādevī (Plate No. XXVIII, Serial No. 2) and in the Ganjam grants of Daṇḍīmahādevī (Plate No. XXIX, Serial No. 1) two inner uprights come closer and the base line merges together with the inner upright curves. In this type the right upright curve is slanting downwards which sometimes take a vertical line and the small central horizontal line dwindles into a small stroke which itself branches into two downward curve line in opposite directions as seen in the Rāṣṭrakūṭa letter of the 9th century A.D. In some cases \textit{n} follows the Central Indian variety of the 8th century A.D. as particularly seen is the Samaṅgada and Paithan plates of the 7th - 8th centuries A.D. The North Indian varieties of earlier and later \textit{n} are found in the Gaṅgas of Svetaka grants. The earlier variety is related with the Śailodbhava script of the 7th - 8th centuries A.D. The Rāṣṭrakūṭa form is obtained in the plates of Rāṇaka Jayavarmadeva (Plate No. XX, Serial No. 1). In such form the small central horizontal line disappears into a small stroke which itself branches off two downward curve line in

\textsuperscript{66} IA., Vol. XI, pp. 111-113 ff.
\textsuperscript{67} EI., Vol. III, pp. 105-06. f and plates.
opposite directions. The earlier Svetaka formula is also adopted in a number of records of the Gaṅgas of Kaliṅganagara like in the Chicacole plate of Devendravarman (Plate No. XXI, Serial No. 1) Sudeva plates of Anantavarman (Plate No. XXII, Serial No. 1), and Alamanda plate of Anantavarman (Plate No. XXII, Serial No. 3). Its form changed in the Sudeva plate of Devendravarman (Plate No. XXI, Serial No. 3) where the right part of न is more prolonged downwards.

T: In the Šailodbhava records the arm of the horse-shoe of ट tending to get shortened to the left where as it is lengthened and slightly curved at the terminal to the right as seen in the Kondedda grant of Dharmarāja (Plate No. XXV, Serial No. 3). This variety is found in the Nagari plates of Harsavardhana 68 and pallava records of the 7th century A.D. as well as in the inscriptions of the Middle Ganges Valley and of Central India 69. Another type is found in the Tekkali plate of Madhyamarāja (Plate No. XXVI, Serial No. 1) which has always a curved hook on the right otherwise known as Deccani variety.

In the Bhaumakara records of Northern Orissa both triangular and horizontal head mark are used as the serif of the letter ट t. Generally it has curved variation and the lower appendage meet in an upper curve line where the horizontal line is added. In the majority of cases both angular and cursive varieties are found where two limbs of the letter meet above at an angle. Whenever it is curved the right limb prolonged downwards but in the case of angular formation the right limb is slanting towards right as seen in the Neulpur grant of Śubhākara (Plate No. XXVII, Serial No. 2) and in the Baud grant of Tribhuvanamahādevi year 158 (Plate No. XXVIII,

68. A. H. Dani, Indian Palaeography, New Delhi, 1986, PL. Xa No.8
Serial No. 2). The Decani variety is used in the Khadipada Image Inscription of the time of Śubhākara and Bhairava image inscription of the 8th - 9th centuries A.D. In this type the left limb reduces in a mere line and has always a curved hook on the right. In the first and second variety the arm of the horse shoe tending to get shortened to the left but lengthened and curved at the terminal to the right. That type is related with the Pāla, Pratihāra and Rāṣṭrakūṭa script of the 9th century A.D. The curve variety is resembled with the script used in the Nalanda stone inscription of Yasovarman of the early 8th century A.D. etc. of central India and Rajsthan.

A number of different varieties of t are noticed in the Gaṅgas of Svetaka grants of the 8th century A.D. Everywhere the horizontal stroke is used as the serif of the letter. The “Kuṭīla” variety of northern t is found in the Gautami plates of Gaṅga Indravarman (Plate No. XXI, Serial No. 1) like the Pāla letter of the 9th century A.D. In this kind the right arm is more longer than the left. The Deccani variety of t which has always a curved hook on the right is also noticed in the Kalahandi plates of Anantavarman Vajrahasta (Plate No. XXIII, Serial No. 2). In the Svalpavelura grant of Gaṅga Ananatavarman (Plate No. XX, Serial No. 2), the develop form of Deccani t is prevalent where the right hook is slightly curled towards left as in the Eastern Chālukyan letter of the 10th century A.D. The form is slightly changed in the Nāpitavataka grant of Gaṅga Devendravarman where the arm meet into top curve line (Plate No. XXIII, Serial No. 2). The upper end of the horse-

70. The upper central region of the Indian Peninsula is per excellence, the historical Deccan and it was really the middle country between the North and South. A happy mixture of two traditions leading to new forms of letters and Dani called it Deccani style. A. H. Dani (Indian Palaeography, p 171 f.)
shoe like t is notched below the horizontal line in the scripts of the Garigas of Kaliṅganagara. It shows the Canarese variety used in the records of the Rāṣṭrakūṭa of the 9th - 10th centuries A.D. The proto-Nāgarī form is also prevailed in the Sudeva plates of Devendravarman Gaṅga year 184 where an angular hook is added on the left of the vertical (Plate No. XXI, Serial No. 3).

**TH:** In the northern Gupta Brāhmī alphabet of the 4th - 5th centuries A.D. th is slightly eliptical circle with a central dividing line. In the epigraphic records of Northern Orissa in about the 7th century A.D. th shows that it is borrowed from the earlier style. In some instances of the Śailodbhava records the central horizontal stroke across the eliptical form is particularly seen in the Banapur plate of Ayasobhita Madhyamarāja (Plate No. XXIV, Serial No. 3). In another variety the letter develops into a straight vertical line on the right with two closely knit spirals attached to left, one below another. It partly looks like the reverse form of Roman capital letter 'B'. Another important feature is found in this variety is that the left curve slopes down to meet the bend vertical at the narrow end. Such variety is found in the copper plate grant of Harṣavardhana, early 7th century A.D., Ap hsad inscription of Adityasena, late 7th century A.D. of Central India. In the Kondedda grant of Dharmarāja (Plate No. XXV, Serial No. 3) it is an outer top loop and the bottom loop is bigger in size which is sloped down to meet the right vertical line. In some other instances the straight vertical line is separated from the left loop as seen in the Barah copper plate of Bhojadeva of Central India and Western Chālukyan alphabet of the 8th-9th Centuries A.D. In the Baudh grant of Tribhuvanamahādevī year 158 (Plate No. XXVIII, Serial No. 2) the vertical line is slightly curved and terminally to right where as the vertical line is prolonged downwards as parallel to the base loop as
seen in the Ganjam copper plate of Daṇḍimahādevī (Plate No. XXIX, Serial No. 1).

A number of different varieties of th are obtained from the study of Svetaka Gaṅga records. The first variety of oval th with a mid line is found which is almost same of the earlier northern formation. The second variety is the bulged form with an outer loop where as in the plate of Mahārāja Jayavarmadeva (Plate No. XIX, Serial No. 3) it is of the bulged form with an inner loop as seen in the Nagda inscription of Aparājita and Jhalrapatan inscription of Durgana of the 8th century A.D. The third variety is the rough oval form with an inner loop at the base. In some of the records of the Gaṅgas of Kaliṅganagara the eastern Chālukyan variety of the 10th century A.D. is formed by a notched base circle and a central dot above it. It is slightly differed in the Andhavaram plate of Anantavarmadeva (Plate No. XXII, Serial No. 2) from the third variety of Svetaka Gaṅga records where the mouth is opened and an inner loop on the lower notched base.

D: The double curve variety of d is changed into angular form in the records of the Śailodbhavas of the 7th - 8th centuries A.D. It has angular beak at the back and a tick at the tip of its lower angle as seen in the Chaṇḍēśvara plates of Māṇabhita Dharmarāja (Plate No. XXV, Serial No. 2). In the Tekkali plate of Madhyamarāja (Plate No. XXVI, Serial No. 1) the added tick mark on its lower base is upward instead of downward of the earlier record. Similar principle is continued in the Bhaumakara records of the 8th - 9th centuries A.D. as particularly seen in the Neulpur grant of Śubhākaradeva (Plate No. XXVII, Serial No. 2) and Dhauli cave inscription of Śāntikaradeva (Plate No. XXVII, Serial No. 3). In another variety it

71. EI, Vol. IV, pp. 31-32 f and plates.
has double curve and a tick at the tip of its lower end which is slightly lengthened downwards as available in the Terundia plate of Śubhākara II (Plate No. XXVIII, Serial No. 1) and Santiragrama grant of Daṇḍimahādevī (Plate No. XXVIII, Serial No. 3). This variety is resembled with the Pāla and Pratihāra script of the 9th century A.D.

The double curved tail variety of d is found in the plate of Rāṇaka Jayavarmadeva (Plate No. XX, Serial No. 1), the Indian Museum plate of Gaṅga Indravarman (Plate No. XX, Serial No. 3) and Kalahandi plates of Anantavarman Vajrahasta (Plate No. XXIII, Serial No. 2). This variety is also used in the Andhavaram plates of Anantavarmadeva (Plate No. XXII, Serial No. 2) and plate of Rājarāja I Devendravarman (Plate No. XXIV, Serial No. 1) of the Gaṅgas of Kaliṅganagara. In some of the Svetaka Gaṅga records such as in the Gautami plates of Gaṅga Indravarman (Plate No. XXI, Serial No. 1) and Svalpa velura grant of Gaṅga Anantavarman its tail is omitted (Plate No. XX, Serial No. 2). In some other instances the Telugu and Canarese influences are marked in these periods.

**DH:** In the Śailodbhava records of about the 7th - 8th centuries A.D. dh is simply exhibited the old formula of the reverse order of the Roman capital letter 'D'. This such formula is used in the Banapur plate of Ayasobhita Madhyamarāja (Plate No. XXIV, Serial No. 3). In other instances the left curve line slopes down to meet the vertical line at the narrow end. In the case of the Śailodbhava records the letter tends to be pointed towards the lower end as seen in the Apsasad inscription of Ādityasena, late 7th century A.D., Deobarnark inscription of Jivitagupta II and Nalanda stone inscription of Yasovarman of the early 8th century A.D. of Central India. The Śailodbhava formula is also adopted in a number of Bhaumakara inscriptions like in the Khadipada image inscription of the time of
Şubhākara (Plate No. XXVI, Serial No. 3), Terundia plate of Şubhākara II (Plate No. XXVIII, Serial No. 1) and in the Ganjam grants of Daṇḍimahādevī (Plate No. XXIX, Serial No. 1). Though similar formula is used in the Dhauli cave inscription of Santikara, Year 193 (Plate No. XXVII, Serial No. 3) but the triangular head mark is used as the serif of the letter. In the Neulpur grant of Şubhākaradeva (Plate No. XXVII, Serial No. 2) and Santiragrama grant of Daṇḍimahādevī (Plate No. XXVIII, Serial No. 3) it is shaped like the half of a leaf either broad or narrowed. In very few cases the lower end is pointed and more prolonged down which looks like the reverse form of Roman capital letter ‘P’. Here the vertical stroke on the right is slightly sloped towards right as seen in the Pāla and Rāṣṭrakūṭa script of the 9th century A.D. The tail variety is obtained in the plates of Ranaka Jayavarmadeva (Plate No. XX, Serial No. 1) and Svalpa-velura grant of Gaṅga Anantavarman (Plate No. XX, Serial No. 2) like the Pāla and Rāṣṭrakūṭa script of the 9th century A.D. The Śailodbhava formula is also adopted in the Sudeva plates of Devendravarman (Plate No. XXI, Serial No. 1) and Sudeva plates of Anantavarman (Plate No. XXII, Serial No. 1) and of the Gaṅgas of Kaliṅganagara records. The South Indian variety is seen in the Chicacole plates of Devendraraman (Plate No. XXI, Serial No. 2), Alamanda plates of Anantavarman (Plate No. XXII, Serial No. 3) and Nāpitavataka grant of Gaṅga Devendravarman (Plate No. XXIII, Serial No. 3) of the Gaṅgas of Kalinganagara. In the first of its kind it is egg like shaped and the top is flattened like Canarese r. 73 In the second type the letter has the usual inward curve at the base like the Eastern Chālukyan letter of the 10th century A.D.

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N: In the Śailodbhava copper plate grants n is of the looped form with

the addition of a horizontal bar on the top. \( N \) is simply composed of a vertical stroke forming a small loop at the base to the left and curling beyond downwards to right like the Gupta and post Gupta Brāhmī alphabet of the 5th century A.D. The right part of the letter is more curved in the Purushottamapura plate of Mādhavavarman (Plate No. XXIV, Serial No. 2). This is otherwise known as "kutila" form where the left loop is filled up and it develops into a head line joined by a right vertical line. This type is found in the Tekkali plate of Madhyamarāja III (Plate No. XXVI, Serial No. 1) and has some resemblance with the Apfhsad inscription of Ādityasena of the late 7th century A.D. and Buchkala inscription of Nāgabhaṭa of 8th century A.D. of central India. The loop is very close to the top horizontal line in the Neulpur grant of Śubhākaradeva, Year 30 (Plate No. XXVII, Serial No. 2) and Terundia plate of Śubhākara II, Year 100 (Plate No. XXVIII, Serial No. 1). In some other instances, the vertical line hangs down from the wedged top and after forming a loop to left runs down and inclined to right slightly. In the Baud grant of Tribhuvanamahādevī, year 158 (Plate No. XXVIII, Serial No. 2) and Santiragrama grant of Daṇḍimahādevī (Plate No. XXVIII, Serial No. 3) the stroke beyond the loop to the right is a broader curve though the wedge is replaced by a serif like that of the Pāla, Pratihāra and Rāśṭrakūṭa letters of the 9th - 10th centuries A.D. Another peculiarity is seen in the grants of Daṇḍimahādevī (Plate No. XXIX, Serial No. 1) where the left line forming the loop runs parallel to the vertical line to touch the top serif.

The looped variety of \( n \) is present in both the records of the Gaṅgas of Svetaka and Gaṅgas of Kaliṅganagara which is influenced by the north-Indian scripts of the 7th - 8th centuries A.D. Another variety also came to the Palagrapy of Orissan epigraphic records in about the 8th - 9th centuries A.D. where the vertical stroke
with serif has a small curved line at the left limb near its base like the eastern Chālukyan script of the 10th century A.D. In the plates of Rāṇaka Jayavarmadeva (Plate No. XX, Serial No. 1) and Kalahandi plate of Ananatavarman Vajrahasta (Plate No. XXIII, Serial No. 2) there is a vertical stroke which terminally forms a loop like the northern variety of alphabet of the 9th century A.D. Another type of n is also found in the plates of Rājarāja I Devendravarman (Plate No. XXIV, Serial No. 1) which is almost same with the Southern character of the 8th - 9th centuries A.D.

**P:** Both nail headed and horizontal bar are used as the serif of p. The left corner is rounded and the right vertical meet to the left forming an acute angle at the base. In the Purushottampur plates of Mādhavavarman II Srinivāsa (Plate No. XXIV, Serial No. 2) the script resembles with the Roman capital letter ‘U’ with a serif at the left top and the right vertical line is shortened. In the Kondedda grant of Dharmarāja (Plate No. XXV, Serial No. 3) the base and the right vertical line is slightly prolonged down. Though this principle is used in the Banapur plate of Ayasobhita Madhyamarāja (Plate No. XXIV, Serial No. 3) but it is angular in form. In some cases the left part of the letter is more curved along with the right part and partly look like dh of the contemporary period. In the Bhaumakara records both angular and rounded forms of p are obtained. Here p retains the serif of the Śailodbhavas record and the right vertical line is prolonged down as seen in the Neulpur grant of Subhākara (Plate No. XXVII, Serial No. 2). The base line is slightly slanting down to right in the grants of Daṇḍimahādevī (Plate No. XXIX, Serial No. 1) but it is more pronounced in the Dhauli cave inscription of Śāntikaradeva (Plate No. XXVII, Serial No. 3). In the Terundi plate of Śubhākara II (Plate No. XXVIII, Serial No. 1) and Baud grant of Tribhuvanamahādevī (Plate No. XXVIII, Serial No. 2) U shape p is found but the arm to the right is prolonged down cursively. In the
Santiragrama grant of Dandimahādevī (Plate No. XXVIII, Serial No. 3) the serif became a top horizontal stroke touching both the upper arms like the Pāla script of the 9th century A.D.

The Telugu and Canarese influences are greatly marked in the Ganjam plate of Mahārāja Jayavarmadeva 74 (Plate No. XIX, Serial No. 3) and Gautami plates of Gaṅga Indravarman 75 (Plate No. XXI, Serial No. 1) of the records of Svetaka Gaṅgas. This variety is also used in some of the records of the Gaṅgas of Kaliṅganagara such as in the Andhavaram plates of Anantavarman 76 (Plate No. XXII, Serial No. 2) and Nāpitavataka plate of Devendravarman 77 (Plate No. XXIII, Serial No. 3). It is of the notched variety where the base line is slightly curved at the centre. In this type the wedge or horizontal head mark are used as the serif of the letter. In the next type the serif became a top horizontal bar touching both the arms of the letter which looks like the proto-Nāgarī form. In some other instances the right vertical line is slightly prolonged downwards as in the Paithan plates of Govinda III 78 of the 8th century A.D.

**PH:** In the copper plate grants of the Śailodbhavas the right arm of ph is curved to form a loop touching the base line in the centre. In the Chaṇḍēśvara plate of Māṇabhitā Dharmarāja (Plate No. XXV, Serial No. 2) the base line is slightly curved. In the Bhaumakara records two different forms are obtained. In the first type, the arm to right terminally curved out and the right part is slightly prolonged downwards as in the Terundia plate of Śubhākara II (Plate No. XXVIII, Serial No. 1) which is almost in same form with the Pāla script of

the 9th century A.D. Though the same formula is used in the Baud grant of Tribhuvanamahādevī (Plate No. XXVIII, Serial No. 2), but the arms are joined on the top by a horizontal line which is terminally curled inwards. In the second category it has an outer loop at the top to the right arm which is resembled with the Khalimpur and Mainamati plates of the 8th century A.D.

In almost all the records of the Gañ gas of Svetaka grants ph is found in the ‘Kuṭīla’ form. Sometimes the arm to right is terminally curved out like the Pāla script of the 9th century A.D. In some other instances its right vertical line is slightly prolonged downwards but the horizontal bar does not touch both the arms. In the Alamanda plates of Anatavarman79 (Plate No. XXII, Serial No. 3) ph is influenced by the Telugu character of the 7th century A.D. where the base line is notched and the right arm is curved inward. The Rāṣṭrakūṭa variety is seen in the Galavalli plates of Rajaraja I Devendravarman80 (Plate No. XXIV, Serial No. 1) where it has an outer loop at the top to right. Here the horizontal line touches both the arms on the top as seen in the Samangada plates of Dantigurga81 and Paithan plates of Govinda III82 of the 7th - 8th centuries A.D.

B: B is not used is the epigraphic records of the ruling families of the Śailodbhavas, Bhaumakaras, Gañgas of Svetaka and Gañgas of Kaliṅganagara from the 7th to the 10th century A.D.

BH: In the epigraphic records of the Śailodbhavas bh is formed with a wedged head mark down to left, runs down straight aslant to right

80. JAHRS, Vol. XX, pts 1-4, pp. 161-70 ff.
82. JAHRS., Vol. XX, pts. 1-4, pp. 161-70 ff.
slightly and curves again to right. It resembles with the western Chālukyan letter of the 8th century A.D. In the Banapur plates of Māṇabhitā Dharmarāja (Plate No. XXV, Serial No. 1) the old triangular form is noticed which was used in the earlier inscriptions of the region of Middle Ganges Valley of the 5th - 6th centuries A.D. Such type is exactly seen in the Nidhanpur copper plates of Bhāsakhaṭarman of the early 7th century A.D. In some other instances as in the Banapur plates of Ayasobhitā Madhyamarāja (Plate No. XXIV, Serial No. 3) and Kondedda grant of Dharmarāja (Plate No. XXV, Serial No. 3) the right upward stroke is curved towards left. The first variety of Śailodbhava formula is used in the Khadipada image inscription of the time of Śubhākara (Plate No. XXVI, Serial No. 3) Dhauli cave inscription of Śāntikaradeva (Plate No. XXVII, Serial No. 3) and in the Santiragram grant of Daṇḍimahādevī (Plate No. XXVIII, Serial No. 3). Here the only difference is the replacement of wedge head mark by a horizontal serif on the top. In its later kind of Bhaumakara records bh is found in angular form like the Pāla, Pratiḥāra and Rāṣṭrakūṭa script of the 9th century A.D.

Whereas the broad notched variety is found in the Ganjam plate of Mahārāja Jayavarmadeva (Plate No. XIX, Serial No. 3) and in the plates of Rāṇaka Jayavarmadeva (Plate No. XX, Serial No. 1) of the Svetaka Gaṅgas records. In the Gautami plate of Gaṅga Indravarman (Plate No. XXI, Serial No. 1) and Kalahandi plate of Anantavarman Vajrahasta (Plate No. XXIII, Serial No. 2), an upward vertical stroke is added on the right slanting base line. In some other instances the Śailodbhava formula is used with adding of a horizontal bar on the top as particularly seen in the Svalpa-velura grant of Gaṅga Ananatavarman (Plate No. XX, Serial No. 2) and Indian Museum plate of Gaṅga Indravarman (Plate No. XX, Serial

83. EI, Vol. XII, pp. 73-76 ff and plates.
No. 3). The similar form is also obtained in some of the records of the Gaṅga of Kalinėganagara such as in the Galavalli plates of Rājarāja I Devendrarvarman (Plate No. XXIV, Serial No. 1). In some other instances the Canarase influence is noticed where the left part of the letter is curved double and the two limbs separate from others. A stem is added on the joint section of the two stem in the Chicacola plates of Devendrarvarman (Plate No. XXI, Serial No. 2) and this such variety is resembled with bh used in the British Museum copper plate grant of Govinda III of the 8th century A.D.

M: A number of different varieties of m are obtained from the study of the copper plate grants of the Śailodbhavas. In the first form it is an open square and the left limb is thickened on the top as seen in the Banapur plates of Ayasobhita Madhyamaraja (Plate No. XXIV, Serial No. 3) and Banapur plate of Māṇabhita Dharmarāja (Plate No. XXV, Serial No. 1). The base line is sloped down to meet the right vertical line in the Tekkali plate of Madhyamarāja (Plate No. XXVI, Serial No. 1) and Chaṇḍēśvara plate of Māṇabhita Dharmarāja (Plate No. XXV, Serial No. 2). Sometimes a loop is added instead of a tick mark on the left bottom of m. A number of three different varieties of m are also found in the Bhaumakara records of Northern Orissa. In the first category the wedged or horizontal line is used as the serif of m. There is a loop on the bottom of the left limb and the base line is slanting down to right which is more pronounced than before to touch the right vertical line as seen in the Dhauli cave inscription of Śaṅtikaradeva (Plate No. XXVII, Serial No. 3). That takes it another form with the addition of a top horizontal bar connecting the two verticals but the right vertical line projects downward as seen in the Dhauli cave inscription of Śaṅtikaradeva.

In the third kind the lower tail is disappeared and the base line is sloped down to meet the right curve line which is prolonged downwards.

The southern variation is found in the Gaṅgas of Svetaka record. In the plate of Mahārāja Jayavarmadeva (Plate No. XIX, Serial No. 3) it is broad looped and the lower loop is tilted to the left. In some instances it has notched base and its loop tilted to the left like the Eastern Chālukyan alphabet of the 7th - 8th centuries A.D. Another peculiarity noticed in the Gautami plates of Anantavarman Vajrahasta of the Gaṅgas of Svetaka and Andhavaram (Plate No. XXII, Serial No. 2) and Tekkali plates of Ananatavarman (Plate No. XXIII, Serial No. 1) of the Gaṅgas of Kaliṅganagara where its mouth is closed by a horizontal bar on the top. The proto-Nāgarī form is also available in the Svalpa - velura grant of Anantavarman (Plate No. XX, Serial No. 2) and Indian museum plate of Gaṅga Indravarman (Plate No. XX, Serial No. 3) of the Svetaka Gaṅga records of the 7th - 8th centuries A.D. as well as in the Tekkali plates of Anantavarman (Plate No. XXIII, Serial No. 1) of the Gaṅgas of Kaliṅganagara. In some other cases the horizontal bar touches both the arms of m while in the Nāpitavataka grant of Gaṅga Devendravaraman (Plate No. XXIII, Serial No. 3) the horizontal bar is added on the top of the left limb of n. In such cases the letter is marked by a top horizontal bar connecting the two verticals. The left vertical hangs down from the top serif forming a loop at the base slanting towards right to touch the right vertical line and prolonged downwards like the Rāṣṭrakūṭa letter of the 9th century A.D.

Y: In the records of the Śailodbhava, the central stroke of y separate itself from the base line and joined with the opened up loop. The base line is either horizontal or curled and that touches the right
vertical line. The letter is thus bipartite in form and a wedge mark on the top of the left vertical as seen in the copper plate of Harṣavardhana of the early 7th century A.D. and Aphsad inscription of Ādityasena of the late 7th century A.D. In the Banapur plates of Māṇabhita Dharmarāja (Plate No. XXV, Serial No. 1) the base line slants down to touch the right curve line which bears close resemblance to the Nalanda stone inscription of Yaśovarman of the early 8th century A.D. of the Middle Ganges Valley. The Śailodbhava formula is adopted in the Terundia plate of Subhākara II (Plate No. XXVIII, Serial No. 1) The serif is added on the top of the left limb of the letter in the Dhauli cave inscription of Śāntikaradeva (Plate No. XXVII, Serial No. 3) and Baud grant of Tribhuvanamahādevī year 158 (Plate No. XXVIII, Serial No. 2). The base line is more curved inward and that touches the right curve line which is prolonged downwards where as the right part of \( y \) became a straight vertical line in the Baud grant of Tribhuvanamahādevī (Plate No. XXVIII, Serial No. 2) like the Samaṅgada and Paithan plates of Central India in about the 7th - 8th centuries A.D. The Canarese character is best seen in \( y \) of the Svetaka Gaṅga records of the 7th - 8th centuries A.D. where the left and right limbs of the letter are curved upwards and the central stroke presents a horizontal bar on the top. In some other instances the letter became more flattened and the left limb forms a circle almost touching the inward curve base line as particularly seen in the plate of Mahārāja Jayavarmadeva (Plate No. XIX, Serial No. 3) The northern bipartite form of \( y \) is found in the plates of Rāṇaka Jayavarmadeva (Plate No. XX, Serial No. 1), Svalpa - velura grant of Gaṅga Anantavarman (Plate No. XX, Serial No. 2) and also in

86. *El.*, Vol. XX, pp. 43-44 f and plates.
the Tekkali plate of Anantavarman (Plate No. XXIII, Serial No. 1). The left limb is bent double and the right vertical line is slightly prolonged downwards. The right arm is bent instead of straight line in the plates of Rāṇaka Jayavarmadeva (Plate No. XX, Serial No. 1) like the Pālas and Rāṣṭrakūṭas letter of the 9th century A.D.

**R:** Two different varieties of \( r \) are found in the Śailodbhava records of Orissa belongs to the 7th - 8th centuries A.D. In the first variety the letter is replaced by a horizontal line on the top and the lower end of the vertical line slightly shoots up from a point given the shape of half an arrow. Another developed form is noticed where the vertical line is slightly bent in an angle towards left and a tail is added at the foot. It has some close resemblance with \( r \) used in the Deobarnark inscription of Jivitagupta II of the region comprising the Middle Ganges Valley and the script of the Central India and Rajsthan. The second formula is more pronounced in the Terundia plate of Śubhākara II (Plate No. XXVIII, Serial No. 1) and in the grants of Daṇḍimahādevī (Plate No. XXIX, Serial No. 1) of the Bhaumakara inscriptions of Northern Orissa. In this form the vertical stroke is slightly curved to right towards its lower end and shoots up again to left half way to form an open one curved triangle. Though it resembled with the Pāla and Pratihāra script, the vertical stroke shoots up again to left half way to form a compressed to curved triangle like the Barah copper plate of Bhojadeva (Vikrama) year 893 of Central India.

In the records of the Gaṅgas of Svetaka and Gaṅgas of Kaliṅganagara, \( r \) is influenced by the Telugu-canarese alphabet of the 8th - 9th centuries A.D. In this case the letter is composed of a

vertical stroke crowned by a small serif. Its lower bend being bent and running parallel and that proceeds right to meet the serif. The variation is occurred in the plate of Rānaka Jayavarmadeva where \( r \) is simply composed of an oval shape with a serif mark on the top (Plate No. XX, Serial No. 1) like the eastern Chālukyan alphabet of the 10th century A.D. Another variety is marked in the Svalpa velura grant of Anantavarman (Plate No. XX, Serial No. 2) where \( r \) is formed by an angular hook towards left with a horizontal line on the top. The letter is also influenced by the northern alphabet of the Bhaumakara ruling families of the 8th - 9th centuries A.D. as noticed in the Indian Museum plate of Indravarman of the Svetaka Gātas. In the Galavalli plates of Rājarāja I Devendravarman (Plate No. XXIV, Serial No. 1) the curve triangle is an open one but the stroke running half way vertically to left is absent like the northern variation of the Rāṣṭrakūta alphabet of the 9th century A.D.

**L:** From the palaeographical study of \( l \) used in the various copper plate grants of the Śailodbhavas two different varieties are obtained. In the first type \( l \) is simply a vertical line which forms a deep wave to the left from the base line as seen in the Banapur plate of Ayasobhita Madhyamarāja (Plate No. XXIV, Serial No. 3) and Kondedda grant of Dharmarāja (Plate No. XXV, Serial No. 3). The top is crowned by a horizontal line. In the second kind the downward curve line in the left starts from the bottom of the vertical line which is found in the Tekkali plate of Madhyamarāja. (Plate No. XXVI, Serial No. 1). This method is also adopted in the Khadipada image inscription of the time of Subhākara of the Bhaumakara ruling families of Northern Orissa. (Plate No. XXVI, Serial No. 3). In other instances the base line slants upto left and the vertical line is somewhat lengthened down. The wedge or
horizontal bar are used as the serif of \( l \). It has some resemblance with the Nalanda stone inscription of Yasodharman of the early 8th century A.D. of the Middle Ganges Valley region and Khalimpur and Mainamati plate of the 8th century A.D. of Bengal.

Its form gradually changed in the Gaṅgas of Svetaka and Kalināganagara records. In the copper plate grants of the Svetaka Gaṅgas the beaked hook of the letter is curled and encircles the body upto the base line as it is influenced by the Maitrikas and Eastern Chālukyan alphabet of the 6th-7th century A.D. In the Siddhantam plates of Devendravarman \(^93\) and the Alamanda plates of Anantavarman of the Gaṅgas of Kaliṅganagara, the upper curl extended downwards to form an almost complete circle and its left limb reduced to small hook (Plate No. XXII, Serial No. 3). Where as in the Sudeva plates of Devendravarman (Plate No. XXI, Serial No. 3) the curve line is more upward from the curl and downward to right. The Bhaumakara variation is also used in a number of copper plate grants of Svetaka Gaṅgas such as in the plates of Rāṇaka Jayavarmadeva (Plate No. XX, Serial No. 1) and Indian museum plate of Gaṅga Indravarman (Plate No. XX, Serial No. 3). In the Nāpitavataka grant of Gaṅga Devendravarman (Plate No. XXIII, Serial No. 3) the right vertical of \( l \) become straight and a horizontal bar is added on its top which clearly suggests their records are influenced both by the northern and souther character.

\( V \): A number of three different varieties of \( v \) are developed in the Śailodbhava records of the 7th - 8th centuries A.D. In the first type it is more or less triangular in shape and the top angle is slightly chipped to take a thick serif which is almost the same with the Yasodharman script of the mid 7th century A.D. The second variety is known from the Banapur plate of Mānabhita Dharmarāja

(Plate No. XXV, Serial No. 1) where the triangular form changed into roundish nature and that is known as Pear shaped variety of v Southern India. The third kind is seen in the Purushottampur plates of Mādhavavarman II Srinivāsa (Plate No. XXIV, Serial No. 2). Here the left curve slopes towards right to touch the right curve line. A different form is noticed in the Kondedda grant of Dharmarāja (Plate No. XXV, Serial No. 3) which just looks like the earlier dh with the addition of a horizontal bar on the left top as in the early Chamba inscription of 7th century A.D. of Mathura and North-Western region. Similarly three varieties of v are obtained in the Bhaumakara inscriptions from the 8th to the 10th century A.D. In the first case the old triangular form with thick head mark is prominent in the Dhauli cave inscription of Śāntikara deva (Plate No. XXVII, Serial No. 3). The second variety is characterised by the rounded form with the addition of a tail on the right vertical line which is curved from the top of the serif. In another variety loop is added on the left part of the right curve line which is almost the same with the Pāla and Rāṣṭrakūṭa script of the 9th century A.D.

In the records of the Svetaka Gaṅgas and Gaṅgasof Kaliṅganagara the arms are not angularised but it partly looks like a curved triangle. It is broad with the development of a median inward curve on the base like the Pallava script of the 8th century A.D. Another type is noticed from the plate of Rāṇaka Jayavarmadeva (Plate No. XX, Serial No. 1) where it is formed with a loop base and a short tick mark is added on its lower end but in the Sudeva plates of Anantavarman, Year 204 (Plate No. XXII, Serial No. 1) the loop is added on the left middle point of the vertical line which looked like the Nāgarī alphabet. This variety is almost same with the script of Middle Ganges Valley of the 7th – 8th centuries A.D.

Chicacole plates of Devendravarman (Plate No. XXI, Serial No. 2) it has triangular loop attached to the right vertical bar and the base is notched as in the Pattadakal inscription of Rāshṭrakūta Dhuruvā of the late 8th century A.D. Another form of \( v \) is also used in a number of Svetaka Gaṅga record where it is triangular in shape with its base notched and the lower corners are rounded. This such variety is found in the plate of Mahārāja Jayavarmadeva (Plate No. XIX, Serial No. 3), Svalpa -velura grant of Gaṅga Annatavarman (Plate No. XX, Serial No. 2). Andhavaram plates of Anantavarman (Plate No. XXII, Serial No. 2) and also in the Tekkali plates of Anantavarman (Plate No. XXIII, Serial No. 1).

The similar form is obtained having a dot head mark in the Annamalai inscriptions of the time of Parāntaka\(^{96}\) of the 8th century A.D., Trichinopally cave inscription\(^{97}\) and Mallapuram inscription\(^{98}\) of Southern India belongs to the 7th - 8th centuries A.D. In other instances the tail variety \( v \) is noticed as particularly available in the plate of Rāṇaka Jayavarmadeva (Plate No. XX, Serial No. 1) and in the plate of Rajaraja I Devendravarman (Plate No. XXIV, Serial No. 1). Here a tail is added on the lower base of the letter but in the later period it became a straight vertical line as used in the Nāgarī alphabet of the 10th - 11th centuries A.D.

\( ś \): In the records of the Śailodbhavas \( ś \) has flattened top like that of \( g \) with or without a stroke across the belly or horizontal line in the inner side. In such variety a thick triangular mark is added in the bottom of the left limb. In the Chaṇḍeśvara plate of Māṇabhita Dharmarāja (Plate No. XXV, Serial No. 2) and Kondedda grant of Dharmarāja (Plate No. XXV, Serial No. 3) the top of \( ś \) is rounded.

95. IA., Vol. XI, p. 125 f
97. A. H. Dani, Indian Palaeography, New Delhi, 1986, PL. XVII a. 11
98. Ibid, PL. XVIII a. 12
The form became change and it took a new shape having the short base or wedge head mark and sometimes it became a complete circle or a loop. In its later variation the top of the left limb curls into a loop and finally joined with the right vertical line. Generally in this type the letter is formed in either triangular or loop base on the left and the right part became a question mark which partly looks like Brāhmi \textit{kh}. It is just like the double bump on the top instead of single one as in \textit{g} of the Eastern Gaṅga and as seen in the Tekkali plate of Madhyamarāja (Plate No. XXVI, Serial No. 1).

In the records of the Svetaka Gaṅgas three different varieties of \textit{Ś} are obtained. In the first variety \textit{Ś} is of the horse shoe shape and its right arm is more lengthened along with a mid line. In such cases the top is rounded as seen in the Kalahandi plates of Anantavarman Vajrahasta (Plate No. XXIII, Serial No. 2). In the second variety its left arm is curved inwards and touches the middle horizontal line as seen in the Gautami plates of Gaṅga Indravarman (Plate No. XXI, Serial No. 1) and Alamanda plates of Gaṅga Anantavarman (Plate No. XXII, Serial No. 3). In its third variation a loop is joined with the lower left curve line and the upper curve line is joined by a bar to the right vertical line like the Bhaumakara alphabet of the 9th - 10th centuries A.D. In some other cases \textit{Ś} shows a loop in place of thick triangle on the foot and a slanting bar is added to connect it with the right vertical line.

\textbf{SH:} The letter \textit{sh} corresponds to \textit{p} with the addition of a central horizontal stroke across the belly as noticed is the Banapur plates of Ayasobhita Madhyamarāja (Plate No. XXIV, Serial No. 3) and Kondedda grant of Dharmarāja (Plate No. XXV, Serial No. 3). In the Tekkali plate of Madhyamarāja (Plate No. XXVI, Serial No. 1) the stroke on the belly slants down slightly but more pronounced in the Chaṇḍeśvara plate of Māṇabhita Dharmarāja (Plate No. XXV,
Serial No. 2). These varieties are related with the central Indian alphabet of the 7th - 8th centuries A.D. The earlier variation of Bhaumakara alphabet is related with the Šailodbhava script where the stroke on the belly slants down slightly. It became more prominent in the Neulpur grant of Šubhākara (Plate No. XXVII, Serial No. 2) and in the Ganjam grants of Daṇḍimahādevī (Plate No. XXIX, Serial No. 1). The right vertical or curve line slants down in the Baud grant of Tribhuvanamahādevī (Plate No. XXVIII, Serial No. 2) and Santiragrama grant of Daṇḍīmahādevī (Plate No. XXVIII, Serial No. 3). In some other records the open mouthed form of sh is filled up by a horizontal line on the top like the Pāla, Pratihāra and Rāṣṭrakūṭa letter of the 9th century A.D. \(^{99}\)

In the case of the Svetaka Gaṅga records sh follows the form of p with an additional midline. In the first case the wedge or horizontal head mark are used as the serif of the letter as it is influenced by the Canarese alphabet of the 9th century A.D. In some cases the central stroke slants down as seen in the Kalahandi plate of Anantavarman Vajrahasta (Plate No. XXIII, Serial No. 2) like the Western Chālukyan alphabet of the 8th century A.D. In some of the records of the Gaṅga of Kaliṅganagara the slanting bar is more pronounced and the right vertical line is prolonged downwards. The changes of the Serif mark is noted here. In the Svalpa-velura grant of Anantavarman (Plate No. XX, Serial No. 2) a short horizontal line is added on the top of the left limb where in the Alamanda plates of Anantavarman (Plate No. XXII, Serial No. 3) the horizontal bar touches both the limbs. The tail variety is also noticed in these periods where the right arm is slightly bent and prolonged downwards.

It has two main types in the Šailodbhava records of the 7th-8th centuries A.D. In the first type it is composed of a stroke with either horizontal or thick triangular head line, forms a triangular loop on the left and from the triangular loop base a line is slanted to right which shoots up vertically. That type is found in the Banapur plates of Ayasobhita Madhyamarāja (Plate No. XXIV, Serial No. 3) and Kondedda grant of Dharmarāja (Plate No. XXV, Serial No. 3). This variety is also seen in the Tekkali plate of Madhyamarāja (Plate No. XXVI, Serial No. 1) which resembles with the Deobarnark inscription of Jivitagupta II100 of the late 7th century A.D. The second category of Šailodbhava formula is also adopted in a number of Bhaumakara inscriptions such as in the Terundia plate of Śubhākara II (Plate No. XXVIII, Serial No. 1). In another variety both wedged and short horizontal head mark are used in the top left limb of the letter and triangular part to left is opened. In the Baud grant of Tribhuvanamahādevi, year 158 (Plate No. XXVIII, Serial No. 2) the small serif is replaced by one that extends to meet the top end of the right limb. Another feature in this variety is that the right vertical or curve line is slightly prolonged downwards like the Pāla, Pratihāra and Rāṣṭrakūṭa alphabet of the 8th - 9th centuries A.D.

In the records of the Gaṅgas of Svetaka and Kaliṅganagara is influenced by the southern and northern alphabet of the contemporary period. It has equal armed and a hook on the left limb, but the right arm is more prolonged downward in the Svalpa velura grant of Gaṅga Anantavarman (Plate No. XX, Serial No. 2). In the Tekkali plate of Anantavarman (Plate No. XXIII, Serial No. 1) the left hook is curled inwards and the hook is separated from the right upward curve line. The Bhaumakara style is also used in these records except some changes. Here the right part of the letter is a

100. CII. Vol. III, pp. 215-17 ff and plates.
straight vertical line which is prolonged downwards and the top is filled up by the horizontal line where as in the Kalahandi plate of Anantavarman Vajrahasta of the Svetaka Gaṅgas the horizontal bar is added on the top of the left limb (Plate No. XXIII, Serial No. 2) as seen in the Barāh copper plate of Bhojadeva\textsuperscript{101} of the 9th century A.D.

\textbf{H:} It looks like \textit{p} of the contemporary period but the right vertical line is slightly shorter and curved down which is terminally prolonged downwards. The base of the letter is curved double and the hook is extended down as seen in the inscription of the 7th century A.D. of the region of Middle Ganges Valley\textsuperscript{102}. In the Purushottampur plates of Mādhavavarman II Srinivasa the left part of \textit{h} is more curved inward and the line in just curved towards right from where the vertical stroke is hanged down (Plate No. XXIV, Serial No. 2). In the Ganjam grant of Daṇḍimahādevī it is formed like \textit{d} as the early northern letter. A different formation is obtained in the records of the Bhaumakaras. The angularism on the bottom part of the letter is omitted by the addition of a short stroke below the serif and then the letter curved towards right to touch the top of the vertical line which is slanting down to right.

In the case of the Gaṅgas of Svetaka and Gaṅgas of Kaliṅganagara records \textit{h} is more or less like its contemporary \textit{p}. Here the added right limb is curved down and the base is notched which shows that as it is influenced by the eastern and western Chālukyan script of the 10th century A.D. Sometimes the base line is rounded and the right hook starts from the base line which is again curved towards left as in the Kalahandi plate of Anantavarman Vajrahasta (Plate No. XXIII, Serial No. 2). The letter used in the Alamanda

\textsuperscript{101} EI, Vol. XIX, pp. 17-18 f and plates.

\textsuperscript{102} A. H. Dani, \textit{Indian Palaeography}, New Delhi, 1952, p - 128 f.
plate of Anantavarman (Plate No. XXII, Serial No. 3) of the Gaṅgas of Kaliṅ ganagara is influenced by the Pallava Nāgarī form of the 7th - 8th century A.D. but here the horizontal line is used as its serif. Another variety is found in the plate of Rājarāja I Devendravarman, Galvalli (Plate No. XXIV, Serial No. 1) where a small stroke is added on the outer left bottom of the base line like the Bhaumakara records of northern Orissa assigned to about the 9th - 10th centuries A.D.

The “acute angled” formerly called the “nail headed” frequently applied in the records of the Śailodbhavas of about the 7th - 8th centuries A.D. The earlier Nāgarī form is found in the Buguda plates of Mādhava-varman where as the Ganjam variety of northern alphabet is used in the Puri plates of Mādhava-varman. However the northern variety showing signs of southern features is represented in the Gautami plates of Gaṅga Indravarman. The admixture of northern and southern types is found in the Vishamagiri plates of Indravarman while the complete northern variation is found in the Svalpa - velura grant of the Gaṅga Anantavarman. With regards to the formation of individual letters it may be observed that k, dh, p, n, y, r, l, s, h have also signs of each. In the case of n it is represented in two distinct forms - one of which is identical in shape with the same of Nāgarī letter while the other looks like Nāgarī v. The Siddhāntam plates of Devendravarman, dated in the (Gaṅga) year 195 and Alamanda plates of Anantavarman, dated in the (Gaṅga) year 304 show the

107. El., Vol. XII, pp. 212-16 ff and plates
borrowings from the proto-Nāgarī and proto-Kannāḍī scripts of the Rāṣṭrakūṭa. The proto-Nāgarī influence is seen in the form of initial ī with two dots above and a line below, the looped form of k, the open mouthed n and t with its arms meeting in a top curve. The Proto-Kannāḍī influence is seen in the doubled vertical of r. The Proto-Kannāḍī influence is also detected in the peculiar form of g in which the lower half of its right vertical is doubled and the left hook is 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, n, y, v, sh and h.

A tendency to simplification is to be found in the hands of some writers. By a particular technical process the desire being to reduce the time. However the North Indian alphabet is used in the Bhaumakara records-while the common palaeographic peculiarity is noticed in the confusion between v and b, This confusion was also the usual features of the earlier records as it evident from the study of the inscriptions generally assigned to about the last part of the 7th and beginning of the 8th century A.D. The later Nāgarī and Bengali form is also exhibited in the letter u of the Neulpur grant of Śubhākaradeva. In some cases the palaeography of bh, ĭ, tt and h, is very difficult to distinguish. In some instances the Bhaumakara letters are related with the Bhaṇja scripts as in the Bamanghāṭi plates of Raṇabhaṇja and Orissa Museum plate of Vidyādharabhaṇjadeva.109

110. EL, Vol. IX, pp. 271-77 ff and plates.