Origin of Brahmi Script from Logographic Elements: An Analysis

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ABSTRACT

When it comes to language and literature, the richness of a culture can only be comprehended via reading and listening. Brahmi is believed to have been responsible for the script of all northern Indian languages except for Urdu. The result of a lengthy and tedious process. There are currently over 200 different languages and dialects spoken throughout India. Some are extensively employed, while others are only found in a single location of the country or planet. Only twenty-two of these amendments has made it into the text of our country's founding constitution. In addition to Braj Bhasha, Avadhi who is spoken in the Oudh region, Bhojpuri, Magadhi, and Maithili which is spoken in Mithila, Rajasthani who is spoken in Rajasthan, and Khadi Boli which is spoken around Delhi. A substantial number of people speak Hindi in its various forms. Another script, known as Brahmi, was also established in the region during this period and was used throughout India and the rest of South Asia at the same time.

Even though historians, archaeologists, and epigraphists have been interested in Brahmi Script for centuries, the script's varied forms, structures, and typographical peculiarities as an alphabet have been mostly overlooked and never examined. Within the scope of this paper, we shall look at the origins of the Brahmi script as a type of logography. Historical appreciation for the distinct anatomical symmetry and phonetic logic of the Brahmi script exists. This has led some outsiders to think that it is an import, yet a consensus has developed over time. "Brahmi" is no longer thought to be a stolen script, but rather an Indigenous one that developed over time. Brahmi is a typographic entity that is basic yet graceful, bold yet lyric, distinct yet easy to recall, symmetrical with decent legibility even when scaled-down, and generally easy to recognise when touched on with closed eyes as a typographic entity. Brahmi is a typeface with a wide range of distinct features. This study investigates the history of the Brahmi script as a logographic element.

Keywords- Indian Scripts, Brahmi Script, Phonetic, Language, Logographic.

I. INTRODUCTION

Scripts are the fundamental part of any civilisation's cultural sophistication. One can learn a lot about the individuals who developed the world's writing systems just by looking at them superficially. They reveal their level of intelligence, artistic interest, and aesthetic appeal through their thought process (clarity and scope). Although some of these scripts are developed from graphical representations, others employ syllabic or alphabetic frameworks to express themselves. When the Sumerian culture of southern Mesopotamia developed a complete writing system in approximately 3500 BCE, the first seeds were planted.

In terms of sheer beauty and ingenuity, the Indian Alphabet is unsurpassed anywhere in the world.

According to experienced grammarians, the symbols represent various shades of sound and are arranged in scientific order.

Logographic, syllabic, and alphabetic scripts all fall into one of three categories. Syllabic scripts use symbols for syllables, whereas logographic scripts use them for words. An entire word can be represented by a logogram, unlike phonetic sounds, which are represented by phonograms. However, an ideogram is not a specific word, but rather an abstract concept, which is what logograms are known for. A logographic script is impractical for most Indian languages, hence phonetic features are included in writing systems that incorporate logograms. There are ideograms and phonetic symbols used in these writing systems as well. In contrast to solely phonetic writing systems like alphabets and syllabaries, logographic symbols may be easily understood regardless of the language spoken.

People from different cultures can so communicate even though their spoken languages are incomprehensible to one another because of logograms. The usefulness of logograms as a universal language, on the other hand, is severely diminished by their abundance and complexity. The less educated are unable to communicate complex thoughts and concepts since it takes a long time to master a big enough set of skills to do so. Logograms have various advantages in aiding writing, but the emergence of more functional phonetic alphabets made it easier for everyone to express themselves in written form.

In alphabetic scripts, alphabets are the phonetic symbols employed. Brahmi is a semi-alphabetic or semisyllabic language since it uses symbols for both alphabets and syllables. The Brahmi script has ten syllabic vowels and eight consonants. If a Brahmi consonant has 10 matras, it can have medial variants. Pronunciation differences are helped using eight conjunct consonants. The impression that Salomon^[1] has is that,

"The Indic system of writing is difficult to classify in terms of the traditional typology of writing systems which recognizes three main script types, namely, logographic, syllabic, and alphabetic. The Indian system is syllabic in the sense that its basic graphic unit is the syllable (aksara), but it differs from a pure syllabary in that the individual phonetic components of the syllable are separately indicated within the syllabic unit."

Whether the Brahmi script is descended from the Latin alphabet is a matter of debate. Alternatively, the inhabitants had invented a new script. Sanskrit and Prakrit, according to Georg Bühler, were developed by Brahman intellectuals in the late 19th century CE to fit the Semitic letter of the phonetic languages. In the 6th century BCE, Persian Achaemenid Empire took control of the Indus Valley (part of present-day Afghanistan, Pakistan, and northwestern India), allowing India to be colonised by a Semitic script. Official records of the ancient Persian government were written in a North Semitic alphabet in Aramaic.

That period was also when a new writing system called the Kharosthi was developed in India and other South Asian countries, but Brahmi was still widely used in other parts of India. The relationship between Brahmi and Semitic is still a mystery, yet Kharosthi is undoubtedly Semitic.

Some people argue that Brahmi is the result of a writing system that was in use in Indus Civilisation but was abandoned when this civilisation came to an end. Some of these scripts bear a striking resemblance to one another, according to those who endorse this theory. This theory appears to be theoretical and difficult to prove, given the utter lack of material evidence linking the two writing systems. https://doi.org/10.55544/ijrah.2.5.4

The age of the Brahmi script raises another mystery surrounding its origins. Until recently, the first instances of the Brahmi script that could be reliably dated were from the Mauryan Empire, which dominated India in the 3rd century BCE. When the Indian emperor Ashoka expanded the Ashokan Inscriptions throughout North and Central India, these instances were found on the rock inscriptions. Because of this, some researchers have speculated that the Brahmi script predates the 3rd century BCE.

These manuscripts, the Brahmanas, were compiled in the 6th century BCE and were part of the Vedic literature at the time. The prose is the only form of writing in the Vedic corpus apart from the hymns for recitation that are designated for oral transmission in the earlier sections of the Vedas. It's impossible to envisage the development of prose without the aid of writing technology. Panini, a famous ancient Indian grammarian from the 5th or 4th century BCE who wrote a significant treatise on Sanskrit grammar analysis, offers additional evidence. Preliterate people would not have been able to produce a work like this. Alexander the Great's companions in India, who arrived a century before Ashoka, also documented the use of writing in India.

Sri Lankan researchers unearthed Brahmi inscriptions on pottery dating back to the time between 450 and 350 BCE, which supports the hypothesis of a much older origin for Brahmi than previously considered. When it comes to the oldest specimens, radiocarbon dating is the method of choice. North Indian Prakrit, an Indo-Aryan language, is used to scribe the inscriptions (Middle Indic). The Brahmi script was the first in India to be devised after the Indus script. Brahmi, one of the most extensively used scripts in the world, has inspired hundreds of writing systems in Southeast and East Asia and India. Individual consonant (C) and vowel (V) sounds are not used to denote the various types of syllables (e.g., CV, CCV, CCCV, CVC, VC). Brahmi symbols include unique V and C components; hence this writing system is classified as alpha-syllabic rather than syllabic.

Most Brahmi occurrences may be found in Northern and Central India, where Prakrit is the primary language. Compared to the Brahmi script, the Ashokan Inscriptions already show some regional variations. Indo-Aryan languages like Sanskrit and Prakrit have no relation to Dravidian languages like Tamil. Inscriptions found in South India, particularly Tamil-Nadu and the region around the city of Madurai in Tamil Nadu, represent Tamil.

It is during this time that the Brahmi script becomes more popular and distinct regional variations begin to emerge. As far as it is registered, there are no inscriptions that predate the Brahmi writing system's debut, making it one of India's greatest writing mysteries. Another script, the Kharosthi of northwest Pakistan and Afghanistan, appears to be directly descended from the imperial Aramaic script employed by the Persians during their two-century dominance over sections of the Indus Valley before the arrival of Alexander the Great. For all that is known, Aramaic may have had an impact on the Brahmi script's development, but the fact that there were advanced states and a corpus of Vedic literature before the Mauryan period makes this doubtful.

Most of the current Indian scripts, such as Devanagari, Bengali, Tamil, and Malayalam, may be traced back to Brahmi. One is more angular in Northern India and the other is more circular in Southern India, which formed two broad varieties. This phenomenon was first interpreted by James Prinsep^[2] in 1838. Ashoka's rock-cut edicts, which date from 250-232 BCE, are the best-known Brahmi inscriptions. More than a few academics believe that Brahmi is derived from Aramaic, while others believe the Brahmi language is influenced by the Indus script. Initially, the Brahmi script was employed to write Prakrit, a language spoken by the common people, but later it was also used to write Sanskrit. All Indian scripts, according to the epigraphers, are descended from Brahmi. Devanagari is the basis for several northern and western Indian languages, including Hindi, Gujarati, Bengali, Marathi, Dogri, and Panjabi. Grantha and Vatteluttu are shown in the Dravidian language.

Alexander Cunningham^[3] had a theory that Brahmi descended from a pictographic-logographic script as one of the first ideas of its genesis. Brahmi's letter "Kha" has been linked to the mattock, or "khan," which is used to dig up the dirt, according to him. Cunningham, on the other hand, was unable to use this idea to deduce the complete alphabet of Brahmi.

Unrivaled in both the breadth of renditions and the subtle differences in sound that can be achieved, Brahmi consonant's selection and arrangement over human vocal cords are unmatched. This compilation has no space for error because it covers every potential pronunciation. The epic grammatical work of Panini's Asthyadhayi is widely acknowledged as the inspiration for this scientific selection, which is a well-accepted fact. One of the first Indian linguists, Robert Needham Cust^[4] properly identifies this as being true.

Buhler's^[5] assessment of the vowels and consonants of the Brahmi alphabet reveals that the alphabet was created by phonologists or grammarians and used for scientific purposes. Brahmi is written from top to bottom, from left to right. Edicts issued by the Asokan dynasty have assisted us to verify that the script was originally written from left to right, even though Eran's coin caused Buhler to declare it *"Boustrophedon."*

This writing system uses symbols to express the whole word or morpheme, and it is the earliest of its kind. The ampersand and other logograms used in most languages are good examples of a logographic script. These characters don't tell you how to pronounce the word. As a result, the same morphemes can be pronounced differently in different languages. To give an example, a huge number of characters are shared by Chinese, Japanese, and Korean speakers, yet the pronunciation of most of these common characters differs from language to language.

Language scholars have generally categorised script types into logographic, syllabic, and alphabetic scripts, which are the three main types of writing systems in the world. It is difficult to classify the Brahmi and Hangul scripts of India and Southeast Asia because they both defy classification. Scholars who have studied these two scripts have come to sharp disagreements on the syllabic and alphabetic traits they share.

There should be more research into these writing systems' alphabetic and syllabic characteristics, and the findings of such research suggest that neither title does them justice. Brahmi scripts, descended from the Brahmi script, first documented in the third century B.C.1, are distinct in that they share, to varying degrees, some of the traits with their parent.

In characters developed from Brahmi, vowel letters are attached above, below, before, or after their initial consonant, while consonant clusters are typically represented by ligatures in scripts developed from Brahmi. Even though it is written horizontally (from left to right) like most Brahmi-derived scripts, the Tibetan dbu can script is arguably more linear than its Indian counterparts due to the lack of true ligatures (only y and r in Cy, Cr, and RC are formally different from their standalone form) and the absence of vowel diacritics above or below consonants, a feature found in other Brahmiderived scripts. Tibetan is not completely linear, despite this reduction of the script's fundamentals. If you recall, vowel letters can be written either above or below their initial consonant as diacritics. Additionally, many consonant clusters are stacked, with each consonant written immediately below its preceding one (Goldstein et al.^[6]; Denwood^[7]).

Vowelless consonants were used in Brahmi writing and its derivatives, the more widely used and historically significant of the two early Indian scripts, but their function is more nuanced than one might expect from their simple appearance. Halanta ('consonant [marker]' or vi- rdma 'stopping [sign]', appended to the consonant (e.g., k) which is to be identified as vowelless, is one example of such a device.

It is, however, restricted in its application. There are several other languages written in Indic scripts descended from Brahmi that do not use it, and even in Sanskrit, it is used with a great deal of reluctance. Two phonemes can be joined into a single graphic syllable when a consonant is at the end of one word and a vowel is at the beginning of the next. When it comes to the visual representation of languages, scripts commonly blend logographic, syllabic, and alphabetic forms of expressing the sound parts in varied and often complex ways.

There were no strategies created to deal with vowel-less consonants in Sanskrit until many centuries after the Brahmi script had been translated, and even then, only in circumstances when it could not be avoided, such as the modern halanta sign was used. Graffiti found after Brahmi inscriptions is common in this area. There are dozens of them. Even though consonantal conjuncts can be traced back to the third century BC, it is possible to imagine a Brahmi stage in which they were absent entirely, and some of the inscriptions that are written very early, are written in less formal than the imperial Ashokan decrees do in fact lack, completely or almost completely, conjuncts. Robert Needham Cust^[8], an early Indian linguist says,

"The Indian Alphabet is a fantastic and magnificent phenomenon completely unequaled in the world."

Each sound is represented by one of several different symbols that have been carefully chosen by grammarians to represent the various shades of that sound. According to Buhler's^[9] examination of its vowels and consonants, from left to right is how Brahmi is written. Asokan edicts have helped us to prove that the script was initially written from left to right, despite a faulty coin from Eran causing Buhler^[10] to declare it *"Boustrophedon."*

"It is now possible to adduce the indisputable fact that the Brahmi alphabet has been formed by phonologists or by grammarians and for scientific use."

II. LITERATURE REVIEW

Professor K. Rajan^[11] argued that a collection of symbols seen on Tamil-Nadu graffiti is the ancestor of the Brahmi script. As proof of his claim, he points to Vallam which is South India, where graffiti inscriptions were present in the early stages, followed by mixed graffiti and Brahmi writings in the middle stages, and finally Brahmi scripts in the last stages. Excavations at Mangudi have yielded a similar image. A relationship between graffiti and Brahmi cannot be ruled out, although it's difficult to say for sure if the two systems are related.

Ojha,^[11] R.B. Pandey^[12] and T.P. Verma^[13] stated that Brahmi's origins were unquestionably Indian. It was the Indian people's linguistic genius that created the Brahmi characters, which were considerably more advanced than any other peoples of ancient times in terms of alphabetic knowledge.

According to S. Langdon^[14] in 1931, scholars attempted to establish a link between the Brahmi script and the Harappan script. G.R. Hunter agreed with him, and several other experts, including D.C. Sircar^[15], have since endorsed his theory. It was a two-pronged approach.

Lambert^[16] refers to the Devanagari script used to write Sanskrit and its daughter languages as a syllabary, Shamasastry^[17] (1906) as an alphabet. Coulson^[18] describes it as 'halfway in character between an alphabet and a very regular syllabary,' while Cardona^[19] simply calls it a script and avoids the issue in his overview of Sanskrit.

Tranted observed that the Brahmi script had no manner of signifying vowelless consonants in its earliest form of which no specimens have survived, and this is the most common pattern in alpha syllabic and related characters other than the Indian. The intricate differences between the sounds made by Brahmi consonant selection and arrangement over human vocal cords are unparalleled. This compilation has no space for error because it covers every potential pronunciation. The epic grammatical work of Panini's Asthyadhayi is widely acknowledged as the inspiration for this scientific selection, which is a well-accepted fact.^[20]

In his article "The History of Writing: From the Logographic to the Alphabet," Rochelle Forrester (2020) states that the transition from logographic to syllabic to alphabetical writing was a transition from the easiest to the most complex type of writing to invent. With the transition from logographic to syllabic to alphabetic writing, the level of abstraction increases, making it more challenging. However, as the level of complexity rises, so does the writing system's simplicity of use. This is due to the fact that the number of signs utilised decreases, with logographic systems often utilising thousands, syllabic systems employing 50 to several hundreds, also an alphabetic method like the Roman alphabet requiring only 26 signs. This is due to the fact that the volume of words in a language generally surpasses the number of syllables, also the number of syllables would typically surpass the number of phonemes, which is the basis for alphabetic writing. It seems unlikely that states as a system of government would have existed if writing or a similar record-keeping technology like the Inca quipu had not been established (Forrester^[21]).

Gelb (1963) believed that removing the logographic element from scripts resulted in the formation of syllabaries, which in turn gave origin to the alphabet. However, aside from the historical issues with this viewpoint, the traditional distinction between syllabaries and alphabets serves to overstate the differences between phonographic letters. Reading and spelling were introduced syllabically instead of alphabetically from Roman times through the nineteenth century, therefore alphabets may be seen as merely a cost-effective technique of transcribing syllables (Justeson & Stephens^[22]).

Some researchers have oversimplified the distinction between logographic systems, which have a more flexible relationship between sign and sound, and alphabetic or syllabic systems, which are more normative and phonographic (recording sound). Daniels and Bright (1996) criticise I. J. Gelb's (1963) theory, which implies a development from logographic to syllabic to alphabetic writing systems (Daniels and Bright^[23]).

III. LOGOGRAPHIC INTERPRETATION OF THE BRAHMI SCRIPT

मन = ४⊥ = <u>⊮</u> (मन) <Mind>

"Mind" or "imagination" are both depicted here. If we rotate this vertically, we will get $\overline{\mathbb{M}}$ which represents "a man who is thinking." Thus, from this it is clear that represents $\underline{\mathbb{W}}$ "a man who is dead or possessed by his thoughts" or "an opposite/ an imaginary man." This symbol is an accurate representation of the mind, since the mind takes possession of the body through thoughts as per Hindu belief.

Mukh means mouth. Logos and names are prominently based on environmental observation. If the above logo is deconstructed, there come out two separate figures. The first one seems like fangs of a dog and second one seems like the long tongue of dog. When they are aligned together, they constitute mouth. To explain mukh, the approach used here is to identify the common function of mukh in all living beings, that is to chew and taste. All humans and most living beings indulge in eating through their mouth. Also, this is inclusively symbolled for all Living beings on this earth irrespective of their feeding style.

"Yut" means addition. The above symbol is unpredictable by its separate components. The two components shown above are neither identical nor follow the same pattern. When they both are combined, they constitute an entirely different symbol. To understand this, the example of cooking can be illustrated here.

A dish is made when several distinct ingredients are added together in varying amounts to make wholly different product. This explains, when two things are added they form distinct product.

This image symbolises mountain. If this image is observed closely, one may discover that this is not merely a triangle with a line segment perpendicular to the arm opposite to the adjoining arms. Here is a threedimensional representation of a mountain.

The above image denotes "bal," which means force. Force is outflow of energy to make way through a

strong barrier or into a solid surface through physical strength. Here the constituents of the symbol look like a brick and a sickle. Brick denotes the weight on which the force is applied. The sickle denotes labourers who will exert force on the brick to get the task done.

The above image resembles a "lion." If the image is observed by breaking it into parts, the hunting style of a lion can be interpreted. The first image gives the vague glimpse of a lion, and the second image is a kind of object behind which a lion may hide to deceive the prey. When both components are joined together, it becomes difficult for one to distinguish a disguised lion. Similarly, it is tough for the prey to spot a lion because of its brilliant hiding skills.

The hindu God Shiva lives in Mount Kailash. Shiva has a coiled snake around his head. The coiled snake around Shiva's neck also reminds devotees to keep their ego under control. When the ego is in check, peace prevails in life forever. When the above image is intently perceived, one may see a snake sitting with open hood guarding the mountain with complete vigilance.

The above logo is easily interpretable as a lotus. This language was perhaps taught to children by acquainting them with the beauty of nature, importance of nature in improvement of their lives and at the same time teaching them to recognise the logo version of Lotus.

सूर्य means "sun". The god-like being seated on a chariot is depicted in the above image. According to Hinduism, "Surya" is sitting on chariot which is drawn by seven horses.

रङ्ग = १ त्र = 🛧 (रंग) <Colour>

रङ्ग means "colour." Colour is nothing but a refelection of light. When we see this symbol, a ray of light passes through the object and creates an illusion, which means colour.

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रूप 🗕 १८ 🗕 🖺 (रूप) <Form>

This logo denotes the word "form" appropriately. The components of the logo, if perceived separately, signify liquid form and solid form. When both are joined together, they constitute an expression for the word "form." The word form expresses the observational judgement for an object. When one sees something, the first thing one understands is how it looks, whether it is big/small, long/short/ black/white, pretty/ugly, pleasant/unpleasant etc.

The above logo clearly denotes an animal. The lower portion of the image denotes legs of a cow and upper portion of the image denotes the upper body of a cow. The i9mage i8s made with zero complicacy reflecting the nature of a cow as copws are easay.

This logo denotes the expression that menifests the blocks. It is seen in the image that there are blocks divided by the lines.

This logo denotes the word "artificial." In this figure, one can see the image of a monument. In the thirdcentury BCE, when Brahmi script was formed in ancient India, there were monuments built all around the area. Kings and aristocrats used to keep artificial objects in their palaces and mansion to show their pride and glory.

The above logo is employed to express any object that can "move." In the image one can capture the glimpse of a 'cart' that has wheels and is attached to a man that can control it. It can be perceived that this is a royal cart as there is a glimpse of sofa in it. The word "chala" means movement. during that period, the only measure to travel was bullock cart, horse cart etc.

This image represents "Ashwa" which means horse. In this image one can see an image of tent and the tail of horse. Here is the illustration of horse shed with a horse inside it, the tail of whom is visible. There is employment of deep imagination.

हस्त =
$$f_{th}$$
 (हाथी/हाथ)

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This logo signifies "haath" which means hand. Here is an image of an abstract painting, an art expression that is done by using hands. Here is deployed the trick for the untapped potential intelligence that every human brain pertains to but in very depth of understanding, knowledge, imagination, and education. As evidenced by the remains found in caves and the literary sources, Indian painting has been around for a long time. Bhimbetka caves (Madhya Pradesh) prehistoric rock paintings are the beginning of the history of Indian art and painting.

The above image is used to express the highest excellence and perfection. Here is an image of crown or trophy. There are used to bestow the person with honour who has attained excellence in his/her work. This also signifies the superiority of a person. Such persons are prioritised over others.

or means "time" or "black." If we look at the entire symbol, it resembles a black person's face; besides this, within the symbol there are three lines that represent the past, present, and future, implying that this symbol represents "time" or "a black person."

The above image signifies "karma" which means work. The above image looks like plant, ground and roots of the vegetable. The vegetables are groem in field with hard work and labour; then only the proper results are ripened. Here is shown the deep insights interconnecting the word with its true meaning.

बाल = 🗆 -८ = 🗁 (बच्चा) <Baby>

This image represents "baccha" which means baby. Here is a drawing of baby which is clearly understandable because any kind of complicacy and sophistication is not perceivable. One can see the baby has a stick in his mouth which is a usual childish activity. Also, the image is horizontal indicating the baby is lying in the mat or floor.

The above image denotes "billi" which means cat. Here one can observe that the cat is hiding behind the big block. In this image the behaviour of a cat is manifested. The cats tend to hide and run away from their owners or strangers. This is reflected in the above logo of Brahmi script. Ancient Indian epics The Mahabharata and The Ramayana (both c. 4th and 5th centuries BCE) include Volume-2 Issue-5 || September 2022 || PP. 18-24

references to cats. Lomasa and Palita, two cats in Mahabharata, examine the nature of partnerships, particularly ones where one of the participants is greater or stronger than the other in a lengthy chapter. After courting the lovely maid Ahalya. The deity Indra escapes her husband by disguising himself as a cat in the Ramayana. They were revered in the houses, fields, and palaces of India because they were proven to be effective in suppressing populations of less pleasant creatures such as rats and snakes.

The reverence given to cats in Indian literature demonstrates that the cat was more than just a technique of pest control.

IV. CONCLUSION

From the above analysis, it is quite evident that ancient languages were created through the observation of nature and environment. The above illustrations demonstrate and justify that the Brahmi script reflects culture and civilisation of that period. Each symbol in the script speaks for itself and represents a word that signifies its meaning, giving rise to the possibility that the script is indeed derived from logographic elements. This aspect has not been explored so far and has tremendous scope to be researched further to confirm the possibility proposed in this paper by the researcher.

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