I: STAGES OF EVOLUTION OF BRAHMI
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The **Brahmi script** is the earliest **writing** system developed in **India** after the **Indus script**. It is one of the most influential writing systems; all modern Indian scripts and several hundred scripts found in Southeast and East Asia are derived from Brahmi.

Rather than representing individual consonant (C) and vowel (V) sounds, its basic writing units represent syllables of various kinds (e.g. CV, CCV, CCCV, CVC, VC). Scripts that operate on this basis are normally classified as syllabic, but because the V and C component of Brahmi symbols are clearly distinguishable, it is classified as an alpha-syllabic writing system.

Origin of the Brahmi Script

One question about the origin of the Brahmi script relates to whether this system derived from another script or it was an indigenous invention. In the late 19th century CE, Georg Bühler advanced the idea that Brahmi was derived from the Semitic script and adapted by the Brahman scholars to suit the phonetic of **Sanskrit** and Prakrit. India became exposed to Semitic writing during the 6th century BCE when the Persian **Achaemenid Empire** took control of the **Indus Valley** (part of present-day Afghanistan, Pakistan, and northwestern India). Aramaic was the language of ancient **Persian government** administration, and official records were written using a North Semitic script.

Around this time, another script also developed in the region, known as Kharosthi, which remained dominant in the Indus Valley region, while the Brahmi script was employed in the rest of India and other parts of South Asia. Although we are confident that Kharosthi is an adaptation of Semitic, the connection between Brahmi and Semitic remains unclear.

Another position has been advanced by professor K. Rajan, who has argued that the precursor of the Brahmi script is a system of symbols found on graffiti marks located on several sites in Tamil-Nadu (South India). In this region, hundreds of graffiti either inscribed or carved on potsherds and rock have been found: some of these symbols are found at the end of Brahmi inscriptions. Dilip Chakrabarti supports the connection between graffiti marks and Brahmi based on evidence found at Vallam (South India), where only graffiti inscriptions were present in the earliest phase, followed by a mix of graffiti and Brahmi script in the middle phases, and only Brahmi inscriptions in the latest periods. A similar picture has been produced by excavations at Mangudi. Whether Brahmi truly derives from graffiti is hard to confirm but the connection between the two systems cannot be ruled out.

There is a third position that claims that Brahmi derives from the Indus script, a writing system employed in the Indus **Civilization** which fell out of use as this civilization came to an end. Those who support this hypothesis point out the resemblance between some of the signs of these scripts. Given the complete absence of material evidence linking both writing systems, this view seems both speculative and hard to verify.

Another question about the origin of the Brahmi script relates to its antiquity. Until a few decades ago, the earliest securely dated examples available of the Brahmi script dated back to the 3rd century BCE, during the time when India was ruled by the **Mauryan Empire**. These examples were found on a set of royal rock inscriptions spread in North and Central India by

the Indian emperor **Ashoka** (r. 268 BCE to 232 BCE), known as the **Edicts of Ashoka** or Ashokan Inscriptions.

Despite the lack of earlier examples, some scholars argued that the Brahmi script had originated earlier than the 3rd century BCE. This claim is based on the composition of a set of texts, the Brahmanas, which were attached to the Vedic **literature** during the 6th century BCE. The Brahmanas are the only section of the Vedic corpus written mostly in prose, unlike the earlier sections of **the Vedas** which are hymns for recitation, specially designed for oral transmission. The emergence of prose is hard to imagine without the support of writing technology. Further evidence comes from the work of Panini, the renowned ancient Indian grammarian who composed an influential work on grammar analysis of Sanskrit during the 5th or 4th century BCE. It is unlikely that a work like this could have been produced in a preliterate context. Knowledge of writing in India is also recorded by writers who joined **Alexander the Great** to India roughly a century before the time of Ashoka.

During the late 20th century CE, the notion that Brahmi originated before the 3rd century BCE gained strength when archaeologists working at Anuradhapura in Sri Lanka retrieved Brahmi inscriptions on **pottery** belonging to the 450-350 BCE period. The earliest of these examples are single letters, and their dates have been established through radiocarbon dating. The language of these inscriptions is North Indian Prakrit (Middle Indic), an Indo-**Aryan** language.

Development of the Brahmi Script

Most examples of Brahmi found in North and Central India represent the Prakrit language. The Ashokan Inscriptions already show some slight regional variations on the Brahmi script. In South India, particularly in Tamil-Nadu, Brahmi inscriptions represent Tamil, a language belonging to the Dravidian language family, with no linguistic affiliation to the Indo-Aryan languages such as Sanskrit or Prakrit.

Some Tamil examples come from inscribed potsherds found at Uraiyur (South India) dating to the 1st century BCE or the 1st century CE. In Arikamedu (South India) there is also evidence of an early form of Tamil in Brahmi inscriptions, dated to the early centuries CE. At this stage, different Brahmi characters specially adapted to suit Tamil phonetic were already in use. Examples of Tamil have not been identified among the earliest securely dated examples of Brahmi found at Anuradhapura in Sri Lanka, where the language represented is Prakrit.

By the 2nd century BCE, the Brahmi script becomes more widespread, and we can also detect the rise of marked regional variations.

Material Form & Use

Ashokan inscriptions are found on carved rocks, caves, stones slabs, and rock pillars. We also have some examples of short Brahmi inscriptions on small seals made of ivory, bone, stone, and terracotta dated to Mauryan times. Other examples come from potsherds and **copper** plates. With the rise of **Buddhism** as the dominant faith in India, we find Brahmi inscriptions on monumental constructions known as 'donative records,' stating the names of

different donors. The early 2nd century BCE saw the beginning of Brahmi inscriptions on coins.

The use of perishable materials as a writing medium is an ancient widespread practice in South Asia, particularly palm leaf and birch bark. As portable and affordable writing surfaces, these materials are ideal. Direct material evidence on the use of palm leaf and birch before the time of the Ashokan Inscriptions has not been found. This lack of direct evidence could have more to do with the bias of the archaeological record due to the destruction of evidence over time rather than the actual absence of a written tradition on perishable materials. Indirect evidence of the possible use of perishable writing surfaces has been retrieved at Sringaverapura in North India in the form of traces of birch wood, from levels dated to c. 10th to 7th century BCE period. D. Chakrabarti also mentions the presence of bone items described as possible stylus employed for writing on palm leaves and birch bark, but these objects could also have been arrows.

The earliest identifiable use of Brahmi script found on ceramic surfaces was to indicate ownership of the item. Towards the mid-3rd century BCE, we see the first example of Brahmi being used for official communication in the production of seals and on the Ashokan Inscriptions. A few centuries later, Brahmi begins to be employed in religious contexts, both in **architecture** and for the transmission of religious texts.

If we accept the view that the use of Brahmi predates the earliest archaeological examples identified so far, then we could speculate that the earliest use of Brahmi was for the recording of commercial transactions and other forms or record-keeping. This is based on the fact that all over the world there is a tendency for writing systems to rise when the need of recording information becomes essential as a result of the rise of urbanism, social complexity, taxation, and increasing reliance on redistribution systems to support the growing demographic pressure. In North India, this process was well underway by the 7th century BCE. It would be unlikely that North India was able to develop and sustain such a level of social and economic transformation, including the rise of **cities** and kingdoms, in the absence of writing. If the work of Panini was produced with the aid of the Brahmi script, we could add that at some point during the 5th to 4th century BCE the system was refined and improved by the North Indian grammarians.

Scripts Derived From Brahmi

During its long history of development, there has been a large number of scripts derived from Brahmi. Many of the scripts derived from Brahmi have been adapted to suit the phonetic of several different languages, deriving in many script variations. The origin of numerous writing systems currently in use across Asia including the Gurmukhi, Kanarese, Sinhalese, Telugu, Thai, Tibetan, Javanese, and several others can be traced back to the Brahmi script.

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II: DECIPHERMENT AND VARIOUS TYPES

Brāhmī is an abugida, meaning that each letter represents a consonant, while vowels are written with obligatory diacritics called *mātrā*s in Sanskrit, except when the vowels commence a word. When no vowel is written, the vowel /a/ is understood. This "default short a" is a characteristic shared with Kharosthī, though the treatment of vowels differs in other respects. Special conjunct consonants are used to write consonant clusters such as /pr/ or /rv/. In modern Devanagari conjunct consonant are written left to right to join them as one composite character whereas in Brāhmī characters are joined vertically downwards.

Vowels following a consonant are inherent or written by diacritics, but initial vowels have dedicated letters. There are three vowels in Brāhmī: /a/, /i/, /u/; long vowels are derived from the letters for short vowels. However, there are only five vowel diacritics, as short /a/ is understood if no vowel is written.

It has been noted that the basic system of vowel marking common to Brāhmī and Kharosthī, in which every consonant is understood to be followed by a vowel, was well suited to Prakrit, but as Brāhmī was adapted to other languages, a special notation called the *virāma* was introduced to indicate the omission of the final vowel.

Punctuation can be perceived as more of an exception than as a general rule in Asokan Brāhmī. For instance, distinct spaces in between the words appear frequently in the pillar edicts but not so much in others. ("Pillar edicts" refers to the texts that are inscribed on the stone pillars oftentimes with the intention of making them public.) The idea of writing each word separately was not consistently used.

In early Brāhmī period, the existence of punctuation marks is not very well shown. Each letter has been written independently with some space between words and edicts occasionally.

In the middle period, the system seems to be in progress. The use of a dash and a curved horizontal line is found. A flower mark seems to mark the end, and a circular mark appears to indicate the full stop. There seem to be varieties of full stop.

In the late period, the system of interpunctuation marks gets more complicated. For instance, there are four different forms of vertically slanted double dashes that resemble "//" to mark the completion of the composition. Despite all the decorative signs that were available during the late period, the signs remained fairly simple in the inscriptions. One of the possible reasons may be that engraving is restricted while writing is not.

Four basic forms of the punctuation marks can be cited as:

- dash or horizontal bar
- vertical bar
- dot
- circle
- Over the course of a millennium, Brāhmī developed into numerous regional scripts, commonly classified into a more rounded Southern India group and a more angular Northern India group. Over time, these regional scripts became associated with the local languages. A Northern Brahmi gave rise to the Gupta script during the Gupta period, sometimes also called "Late Brahmi" (used during the 5th century), which in turn

diversified into a number of cursives during the Middle Ages, including Siddham (6th century), Sharada (9th century) and Nagari (10th century).

- Southern Brahmi gave rise to the Pallava Grantha (6th century), Vatteluttu (8th century) scripts, and due to the contact of Hinduism with Southeast Asia during the early centuries CE also gave rise to the Mon script in Burma, the Javanese script in Indonesia and the Khmer script in Cambodia.
- Also in the Brahmic family of scripts are several Central Asian scripts such as Tibetan and Khotanese.
- Gary Ledyard has suggested that the basic letters of hangul were taken from the Phagspa script of the Mongol Empire, itself a derivative of the Brahmic Tibetan alphabet (see origin of hangul).
- The *varga* arrangement of Brāhmī was adopted as the modern order of Japanese kana, though the letters themselves are unrelated.

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III: IMPORTANT TAMIL BRAHMI INSCRIPTIONS

Tamil-Brahmi also known as **Tamili** or Damili is a variant of the Brahmi script used to write inscriptions in the early form of the Old Tamil language. The Tamil-Brahmi script has been paleographically and stratigraphically dated between the 3rd century BCE and the 1st century CE, and it constitutes the earliest known writing system evidenced in many parts of Tamil Nadu, Kerala, Andhra Pradesh and Sri Lanka. Tamil Brahmi inscriptions have been found on cave entrances, stone beds, potsherds, jar burials, coins, seals, and rings.

Tamil Brahmi resembles but differs in several minor ways from the Brahmi script inscriptions found elsewhere on the Indian subcontinent such as the Ashokan edicts found in Andhra Pradesh. It adds diacritics to several letters for sounds not found in Prakrit, producing *n̲ r̲ ṟ l̲*. Secondly, in many of the inscriptions the inherent vowel has been discarded: A consonant written without diacritics represents the consonant alone, whereas the Ashokan diacritic for long *ā* is used for both *ā* and short *a* in Tamil Brahmi. This is unique to Tamil Brahmi and Bhattiprolu among the early Indian scripts. Tamil Brahmi does not, however, share the odd forms of letters such as *gh* in Bhattiprolu. This appears to be an adaptation to Dravidian phonotactics, where words commonly end in consonants, as opposed to Prakrit, where this never occurs. According to Mahadevan, in the earliest stages of the script the inherent vowel was either abandoned, as above, or the bare consonant was ambiguous as to whether it implied a short *a* or not. Later stages of Tamil Brahmi returned to the inherent vowel that was the norm in ancient India.

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IV: ORIGIN AND EVOLUTION OF VATTEZHUTHU

The script was also known as Tekken-Malayalam or Nana-mona. The name "Nana-mona" is given to it because, at the time when it is taught, the words "namostu" etc. are begun, which are spelt "nana, mona, ittanna, tuva" (that is, "na, mo and tu"), and the alphabet therefore came to be known as the "nana-mona" alphabet**.** *Vatteluttu* probably started developing from Tamil-Brahmi from around 4th-5th century AD. The earliest forms of the script have been traced to memorial stone inscriptions from the 4th century AD. It is distinctly attested in a number of inscriptions in Tamil Nadu from the 6th century AD. By the 7th to 8th centuries, it had completely evolved from the Tamil Brahmi. Its use is also attested in north-eastern Sri Lankan rock inscriptions, such as those found near Trincomalee, dated c. 5th and 8th centuries AD.

Vatteluttu was replaced by the Pallava-Grantha script from the 7th century AD in the Pallava court. From the 11th century AD onwards the Tamil script displaced the Pallava-Grantha as the principle script for writing Tamil. In what is now Kerala, *Vatteluttu* continued for a much longer period than in Tamil Nadu by incorporating characters from Pallava-Grantha to represent Sanskrit words of early Malayalam. Early Malayalam inscriptions (c. 9th and 12th century AD) are composed mostly in *Vatteluttu*. The script went on evolving in Kerala during this period and in c. 12th century onwards.