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## Chapter 4

# **Riddle of the Rhino: Tracing Early Human Migration in India Through the Cave Paintings of Bhimbetka**

***Turzo Nicholas Mondal, Suddhabrata Chakraborty***

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### **Abstract**

*The Bhimbetka rock shelters exhibit a wide array of cave paintings. This paper will deal with a specific Mesolithic rock painting of a two-horned rhino figure discovered in the Urdan cave. The only Asiatic two-horned rhinos are the Sumatran rhinos that once inhabited the Indonesian forests and dispersed through the Thailand-Myanmar corridor up to the eastern floodplains of Brahmaputra. The traces of cultural integration of Sumatran rhinos appear in several folktales and rituals of Southeast Asian countries such as Indonesia, Malaysia, Thailand, Myanmar, etc. However, without any personal encounter or pre-existing knowledge, it might have been quite an impossible task for the artists of Bhimbetka to draw a figure of a two-horned rhino. Considering that there were limited possibilities of any personal encounter as the Sumatran rhinos never ventured*

*into the central Indian grasslands, it can be assumed that they had pre-existing knowledge of the animal's appearance. The well-established linguistic category of the Austroasiatic migration from mainland Australia to the Indian subcontinent around 10,000 years ago along the Indonesia-Thailand-Myanmar route coincides with the dispersal route of the Sumatran two-horned rhinos. Based on the already available information and circumstantial evidence, this paper explores the possibility of having access to ancestral knowledge, about the physical encounters of Sumatran rhinos along the migratory route, that travelled to Bhimbetka region and was expressed much later through cave paintings. It parallelly attempts to provide a cultural context to the two-horned rhino of the Urden cave as well.*

Prehistoric caves are an essential locus that holds the testimony to all the previous occupations extended over a period of time. These caves offer a wide array of scattered yet robust evidence about prehistoric settlements. The shreds of evidence are generally situated in an entangled formation, and thus when extracted and assembled, can provide profound socio-cultural insights into a particular period. Cave paintings are one kind of tool that helps to extract the layers of information integral to the cave system. It provides a visual narrative of the lived experience of the inhabitants. Therefore, these cave paintings are critical articulations that reveal the social and cultural behaviour, social identity, culture and livelihood patterns, settlement patterns of the early humans, and the contemporary ecological landscape of that particular zone. These highly sensitive depictions are not only the mere expression of human feelings but also a narrative sequence that allows present-day spectators to understand the logical flow of the early humans because the technological and social details are “told in their own system of narrative pictorials” (Neumayer, 2013: 83).

The Bhimbetka rock shelters spreading over 10 kilometres in the hills of the Raisen district of Madhya Pradesh are amongst the sites that hold the narrative sequence of the earliest humans in the whole

Indian subcontinent. They provide a ‘rare glimpse at a sequence of cultural development from early nomadic hunter-gatherers to settled cultivators to expressions of spirituality (Encyclopedia Britannica). “These caves and rock shelters were inhabited continuously by human for more than a hundred thousand years from the stone-age through the Acheulian and Mesolithic Age (Ray and Ramanathan, 2003: 54, Mishra et al., 1977 qtd. in Tiwari and Banerjee, 1980: 132). Chattopadhyaya (2003: 315) suggests that the evidence of human settlement in the Bhimbetka cave spans over the upper Paleolithic and early Mesolithic periods. The antiquities of some caves are as early as 100,000 years (Ray and Ramanathan, 2003: 14-15). Among the 750 rock shelters, one hundred thirty-three of these rock shelters contains cave paintings (Ray and Ramanathan, 2003: 54). Those can be categorized based on the time frame, namely, Upper Paleolithic, Mesolithic, Chalcolithic, Early historic, and Medieval (Wakankar & Brooks, 1976 qtd. in Dubey-Pathak, 2014: 18; Mathpal, 1984: 220; Tiwari, 2000: 189).

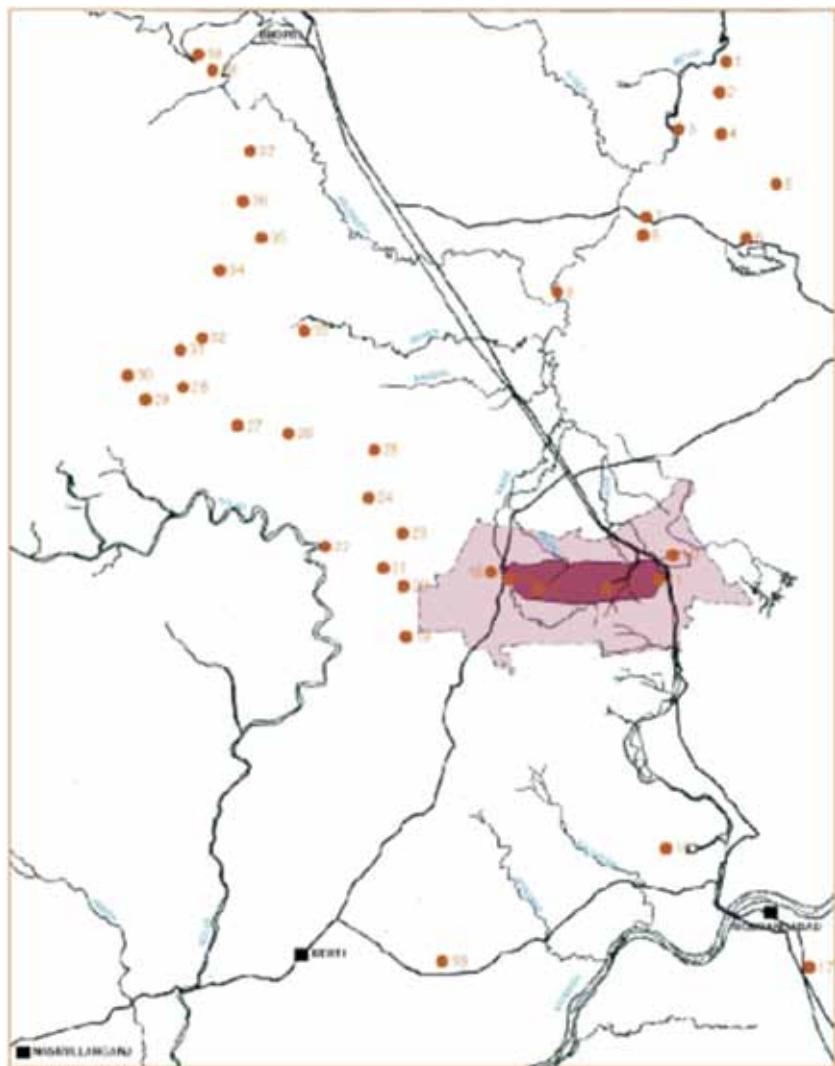
It is important to note here that what we presently call Bhimbetka is a complex that includes six other hills in its vicinity, namely *Vinayaka, Bhaunrewali, Lakhajuar East, Lakhajuar West, Jondra and Muni Babi ki Pahari*. Those contain more than a thousand rock shelters, including Urden (Mishra, 1981: 4; Ray and Ramanathan, 2003: 44).

Urden cave is the specific research locale that has been focused on in this study. One of Urden cave’s crucial findings is the depiction of the two-horned rhino, the particular figure that will be discussed in this paper.

Urden cave, especially, holds the testimony of Mesolithic culture that entraps the course of cultural evolution and migration of the early human in Bhimbetka. Mesolithic is the most profoundly studied era among the cultural phases of prehistoric India. Roughly, in India, it started around 12,000- 8,000 BP that continued up to 6,000-5,000 BP (Agrawal et al., 1978: 38, Tiwari and Banerjee 131, Neumayer, 2013: 83), which means that the period of Indian

Mesolithic is very short-lived. One hundred ninety-four Mesolithic caves have been reported so far (Chattopadhyaya, 2003: 315), and among them, more than 50 caves are situated in Urdan within a radius of approximately one kilometer (Patowari, 2019).

**Fig 1: Painted Rock Shelter Sites in the vicinity of Bhimbetka. Urdan Cave (1) is marked on the top right corner. (Ray and Ramanathan, 2003: 44)**



Interestingly, the two-horned rhino has not yet been discussed meticulously by the scholars working on Bhimbetka. Tiwari (2000: 213-217) has discussed the Rhinoceros species painted in Indian rock shelters but has not specified anything about the presence of two-horned rhino's depiction in Bhimbetka. Neumayer (2013: 134) has mentioned the depiction of two-horned rhinos but has not discussed it in detail as he did for the Indian rhino. However, such a representation of an exclusive fauna on the cave wall is a threshold for accessing robust discussions on human migration, adaptation, cultural behaviour and livelihood of early humans.

Although several authors have worked on the early human migration in India and have analysed the Bhimbetka rock paintings and the spatial distribution (and the emergence) of language groups but the origin of this area's inhabitants or their cultural identity has not yet been aptly understood. Hence, identifying the painter of the figure of a two-horned rhino or, in other words, tracing the social and cultural history of the painter has not been attainable.

Some of the recent scholars have identified the presence of a varied language group (the Austroasiatic, the Dravidian) in Bhimbetka (Mathpal, 1984: 25). Several others have talked about migration and settlement of *Homo erectus* and *Homo sapiens* in the region (Sonakia & Lumley, 2006: 354). But none of them have identified a group of people to be the inhabitants of Bhimbetka during the Mesolithic age. They could not provide a specific timeline about the arrival of the population either. Though a large pool of data is easily accessible and provides clues to navigate the study, they do not provide sufficient material to probe into the cultural context of the two-horned rhinos in Urden.

Situating at this particular juncture, this study, therefore, attempts to provide a cultural context to the two-horned rhino. It will try to comprehend the origin of the knowledge (both acquired and ancestral) of the artists regarding the same through landscape analysis of the two-horned rhinos' dispersal route that coincides with the early human migration from Southeast Asia. The paper also aims

to dissect the possibility of a wave of westward human migration till Bhimbetka by utilizing the typo-technological, linguistic and cultural framework.

### ***The painting of the Two-horned Rhinos:***

The representation of a two-horned rhino is a rare find at Bhimbetka. The length of the rhino is 30cm and has been drawn with red pigment obtained from haematite and is seen in an extensive composition on a low ceiling (Neumayer, 2013: 134, 135). “The body pattern of the animal is quite simple, with a double meander making up the center of the body, which is otherwise filled in with simple lines. Only the head is drawn in some detail” (Neumayer, 2013: 135).

Neumayer (2013: 134) also noted the fact that:

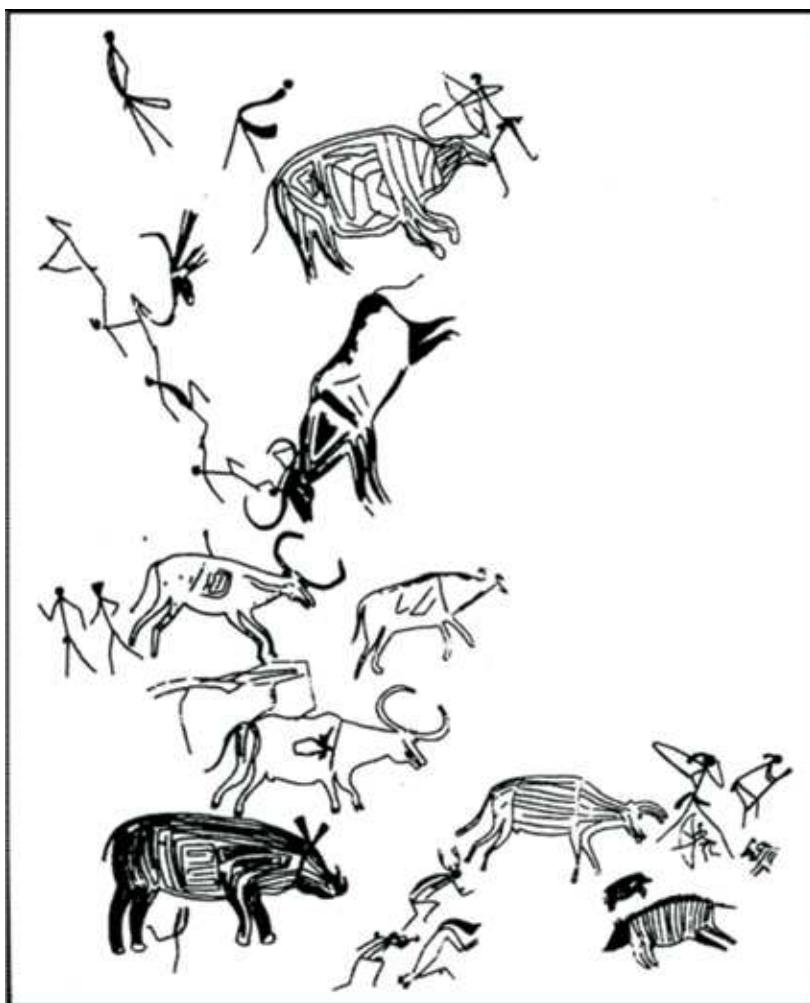
“While this picture may be documenting the fantastic iconography of the Mesolithic artist, it could also symbolize the presence of the small Sumatran rhino in central India during the Mesolithic period in Central India, though that cannot be concluded with certainty until more such pictorial depictions or other archaeological evidence are found.”

Such inconsistencies of information push for an in-depth and wide-encompassing study because no sufficient data can be extracted from the existing literary sources or the figure itself to place the two-horned rhino contextually. Human and animal dispersal route, cultural history, linguistic and genetic similarity are among many processes to find a correlation between the artist and the art.

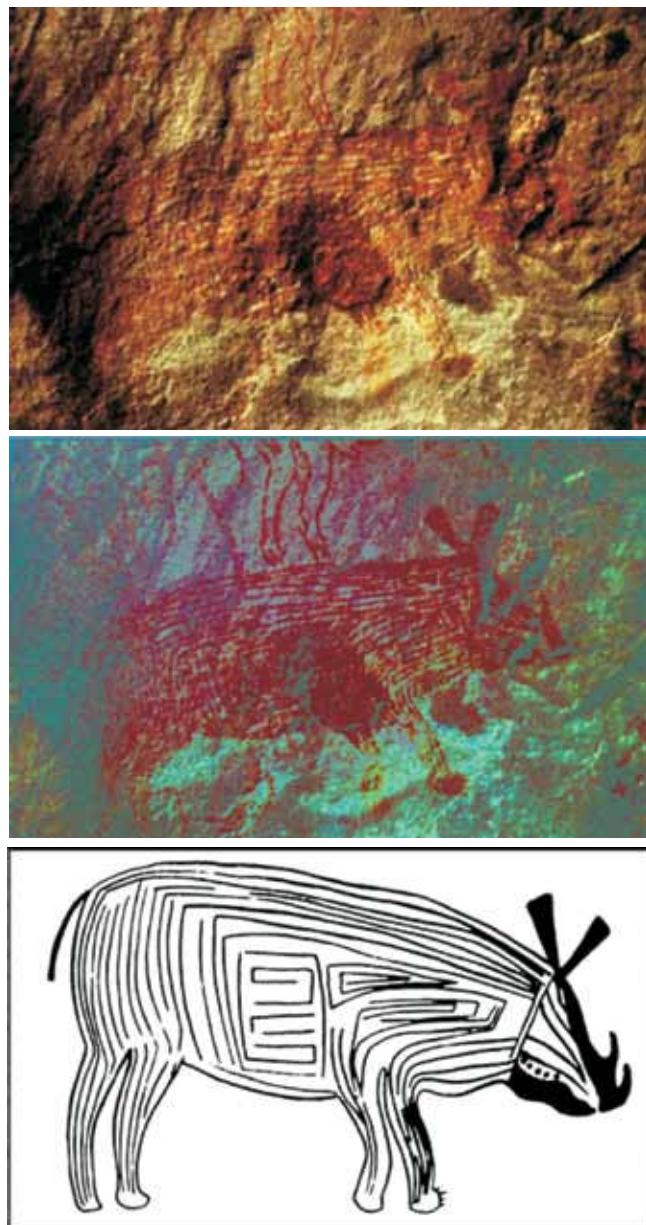
### ***Spatial Distribution of the Two-horned Rhinos:***

A clear understanding of geographic and environmental features of an area is always a prerequisite in studying the human migration and dispersal patterns of that place (Korisettar, 2007: 69). Humans, which form an integral part of the floral and faunal diversity in an ecosystem, thrive and sustain by suitably using the locally available

**Fig 2: The specific panel where two-horned rhino has been drawn on (Neumayer, 2013: 135)**



natural resources, thereby establishing an intimate interrelation with the biodiversity and its components. Therefore, the learnings out of the encounters between a group of humans and a particular animal, helps shape the dominant notion about the animal. It eventually leaves prominent marks on the cultural framework; marks to be found in the artistic expressions in the future like in case of the



**Fig 3, 4, 5:** The depiction of two-horned rhino on the wall in red pigment (Neumayer, 2013: 135), Image enhanced by ImageJ by the authors, Linear drawing of the figure by Neumayer (2013: 135).

depiction of two-horned rhino in Bhimbetka. Hence, to entirely realise the sheer need for discussing the painting of the two-horned rhino in Bhimbetka, it is crucial to focus on the distribution of rhinos in the Indian subcontinent and in the Indo-China peninsula.

Presently the only species of Asiatic rhinoceros that inhabits the Indian subcontinent is the Greater one-horned rhinoceros (*Rhinoceros unicornis*). It is characterized by the single conspicuous black keratinous horn on the snout. They are grass eaters and follow the water bodies for feeding, wallowing and resting (Sinha et. al., 2011: 9). Therefore, they inhabited the lands with an abundance of grasslands and water bodies such as the Himalayan foothills, Central Indian grasslands, the Ganga - Brahmaputra floodplains till the Indus valley, including the Saurashtra region in the west. Their habitat has shrunk into a few pockets in the human-dominated landscape of southern Nepal, northern West Bengal, and the Brahmaputra valley at present (Chitalwala, 1990: 80; Choudhury, 1997: 151).

The Indian subcontinent, however, in the past was inhabited by two other rhino species - the Javan rhinoceros (*Rhinoceros sondaicus*); restricted to the low-lying areas of southern Bengal, Sundarbans, and Chittagong and the Sumatran two-horned rhinoceros (*Dicerorhinus sumatrensis*); once distributed in Meghalaya, Manipur, Mizoram and Chittagong (Foose and Strien, 1997: 12-13; Rookmaaker, 1980: 257). It is important to note that only the Sumatran rhinos possess two horns out of these three species, which infers the painting of the two-horned rhino being Sumatran rhino.

Sumatran rhinos originated from Sumatra, Borneo, and Malay and dispersed through Thailand and Myanmar's corridor up to the eastern floodplains of the Brahmaputra (Foose and Strien, 1997: 13; Rookmaaker, 1980: 253). Interestingly, unlike the other two species, there is no evidence of the Sumatran rhinos on the other side of the Brahmaputra. Sumatran rhinos prefer the dense forests of higher elevation and, during the monsoon, migrate to an even higher elevation as opposed to the Javan rhino, which inhabits coastal and floodplains. It justifies the once-thriving population of

Sumatran rhinos in the elevated region along the Eastern mountains (Purvanchal range) (Rookmaaker, 1980: 257). This peculiar habit (of the Sumatran rhino) provides a logical explanation to two questions; firstly, it signifies that the Brahmaputra river posed as a barrier to the Sumatran rhino, which restricted them from venturing into central and northern India (Foose and Strien, 1997: 12) and secondly, it clarifies the reason for which the Sumatran rhinos never inhabited central India. In comparison, the Javan rhinos thrived in Indian coastal and flood plains despite both species being originated in the same region and following similar dispersal routes till the Brahmaputra river.

As Sumatran rhinos could not cross the Brahmaputra, the painting of the species in the central Indian cave becomes all the more significant. Firstly, the only place in the subcontinent where humans could have encountered the Sumatran rhino, except the Indonesian archipelago, was in the mountainous regions of eastern Bangladesh and North-east India. Secondly, as the painters of Bhimbetka couldn't encounter a Sumatran rhino, the painting was most probably drawn from an image imprinted into their minds. Thirdly, taking the distance between Bhimbetka and the Brahmaputra river into account, it can be inferred that the image was cultivated from the pool of rich ancestral memory that echoes a harmonious relationship with biodiversity. However, the question that arises in this context time and again is how did the knowledge travel to Bhimbetka? This question can be approached by analysing three connecting threads: cultural, linguistic & genetic, and typo-technological. The cultural connection ensures the presence of Sumatran rhino imbibed in Southeast Asian culture; linguistic and genetic connection shows the genetic track of migrated Austroasiatic population from Southeast Asia, and the typo-technological connection focuses on the resemblance between the tools from Southeast Asia and tools from several sites along India-Bangladesh border with reference to the fossil wood industry and argues for westward human migration from Southeast Asia. Therefore, a careful interweaving of these three

threads (cultural, linguistic & genetic, and typo-technological) can form an appropriate structure to elaborate on for a comprehensive answer.

### ***Cultural Connections:***

The mutual coexistence of humans and animals has dramatically influenced the cultural dynamics of human societies since antiquity. The close encounters with animals have vividly been presented in several cultures through their expression in art, folklores, and performative traditions, for example, the depiction of the Royal Bengal tiger in the Sundarbans' folktales, the portrayal of two-horned Sumatran rhino in the folktales of Burma, Malay, and Sumatra.

Going through the folktales of the two-horned Sumatran rhinos, several authors such as Evans, 1905: 555; Blyth, 1873: 8513; U Tun Yin qtd. in Strien, 1974: 57-58) have observed that rhinos were often considered as fire-eating animals by the Burmese, especially by the Karens and the Kachins:

Rhinos, especially *D. sumatrensis* are said to be attracted by campfires or smoke. Whenever it sees a fire it runs up and tramples and devours it, causing a lot of damage and panic in the camps. (F Mason 1882, U Tun Yin 1956) writes that the Karens state that this fire-eating rhinoceros is a different kind and that it also approaches horses instead of fleeing from them. (Strien, 1974: 58)

Among the Karens, the killing of rhino is considered a bad omen “as doing so will result either in the death of some member of one’s family or in crop failure, or similar retribution” (Ansell, 1947: 254).

Harrison (qtd. in Strien, 1974: 58) presents a fascinating description of the rhino’s horn from the Malay folktale:

Some say that the horn is hollow and the animal can breathe air or squirt water through it, others say that it sheds its horn each year and buries it in the ground. If

this horn is carefully replaced by wooden imitations three times, the animal will continue to plant its horn there year after year. (58)

According to Harrison, similar beliefs are observed in Sumatra as well (58). On the other hand, Banks have noted the presence of rhino in Borneo's culture:

[When *D. sumatrensis* has] deposited its excrements in a stream it turns round and eats the stupefied fish that come to the surface. (Banks, 1931: 21)

These illustrious folktales were captured by the colonialist naturalists and hunters from the late 19th and 20th century. Nevertheless, they provide profound insight to the incorporation of rhino into the cultural framework of the people of Sumatra, Borneo and Burma, because, “folklore may be treated as the mirror of the society” and “the genres of folklore,” such as folktales, “behave like the pulse of the people” (Islam, 2001: 292). It is also important to note that “the morphological analysis of any genre of folklore... reveals that the thoughts of the primitive people or of the folks of ancient and modern times cannot be discarded... as unscientific” (10). In other words, folklore does not deserve to be derided as unscientific because of the systematic ordering of the human experience and knowledge it encapsulates. Based on the medium of expression, this scientific knowledge system can be divided apparently into two groups: material and non-material. While “material folklore genres are transmitted through visual learning;”; “the non-material folklore genres are mostly transmitted orally” (11). One of the non-material genres of folklore such as, folktales, “always narrates some story, story about man and woman, story about man and animal, story about animal and animal, story about man and birds, story about birds and birds, and so on” (15), which means, the entanglement of nature and culture is to the core of this verbal art. Therefore, verbal communication itself is a salient locus that embodies the narratives of the folktales. Verbal or oral communication is one of the oldest

forms of communication that existed even before the development of writing systems. Therefore, there should be no confusion about the incorporation of the two-horned rhino into the folktales of Sumatra, Borneo and Burma as a product of the knowledge and experience derived from the entangled relationship between man and animal that has eventually transmitted via verbal communication.

Not only in Burma, Sumatra and Borneo but myths and legends about the two-horned rhino have developed considerably in several nearby countries of the Indonesian archipelago and China. This sort of assimilation only triggers the fact that the interaction between the rhino and human was very intimate and prolonged. This prolonged exposure made humans know, understand, and comprehend the rhino better, thereby incorporating it into their daily lives and thus, integrating it into their lived experience. This gradual siltation of lived experience adds a layer to the landscape of the knowledge system, which is passed on to the next generation as ancestral knowledge. Hence, when ancestral, the knowledge system does not have the burden to prove to be derived from real-life experience. Thus, a painting of a two-horned rhino need not necessarily be painted from the memory of actual encounter; rather, ancestral knowledge can be the sole influence. As already established, the two-horned Sumatran rhinos never crossed the Brahmaputra; the artists of Bhimbetka cannot have drawn the painting out of the memory of a personal encounter, which indicates quite vividly towards the active involvement of ancestral knowledge. The last place where this mingling of humans and the Sumatran rhinos could have been possible was the eastern floodplains of the Brahmaputra, aka the Belt of Interaction (BoI). The fact that this ancestral knowledge travelled from there to the caves of Bhimbetka indicates a migration of early humans from the land inhabited by the Sumatran rhinos towards Central India.

But, how is it possible to be so confident about their presence in Bhimbetka? One of the best ways to tackle this critical question is from a linguistic perspective.

### *Linguistic and Genetic Connections:*

Linguistic anthropologists have grouped Asian populations across eight language families in Eastern Asia and South Asia. These language families are- Altaic, Sino-Tibetan (split into Han and Tibeto-Burman sub-branches), Daic, Hmong-Mien, Austro-Asiatic, Austronesian, Dravidian, and Indo-European:

With wide distribution in mainland China and Siberia, both Altaic and ST form two northern language families, DR and IE comprise the two main language families of the Indian subcontinent, while Daic, HM, AA and AU make up the southern language families that are primarily distributed in southern China and Southeast Asia. (Zhang, 2015: 1)

On the other hand, further linguistic investigations on Austroasiatic speaking people show that these specific groups of people are found in Southeast Asia and several parts of the Indian subcontinent. Genetic analysis of the “Asian-specific Y-chromosome lineage (O2a1-M95)- the dominant paternal lineage in Austro-Asiatic (AA) speaking population” has specified a common shared Asian-specific haplogroup (O2a1-M95) between the AA speakers from India and Southeast Asia (Chaubey, 2010: 1015, Zhang, 2015: 2). Based on these findings, scholars have indicated the origin of the lineage (O2a1-M95) to be in the southern part of eastern Asia approximately around 20-40 thousand years ago; “followed by a southward dispersal to the heartland of MSA [mainland southeast asia] ~16 KYA, and then westward migration to India ~10 KYA” (Zhang, 2015: 2). In other words, the migratory route of the AA speakers had begun in Southeast Asia and then moved gradually towards India about 10 thousand years ago. A recent study of the Austro-Asiatic language speakers indicates their arrival in India at ~4-3.5 KYA (Sidwell, 2018: 32). Entering into India these population groups, an extensive admixture with the local population is observed (Schliesinger, 2019: 17; Chaubey, 2010: 1022).

These findings indicate that the people who encountered the two-horned rhino and incorporated it into their cultural framework were Austroasiatic or Austronesian speakers. Zooming further into the spatial distribution of the language groups, it becomes more apparent that it was primarily the Austroasiatic speaking people who encountered the two-horned rhinos the most. Thus, they are the most potent ones to have carried the ancestral knowledge forward. Further evidence for this claim can be drawn by perusing the typo-technology of the sites found in and around the BoI.

### ***Typo-technological Connection:***

Not only the place of origination was the space where Austroasiatic people came across the two-horned rhinos, but they also might have had an experience of encountering them along their way of migration. The probable sites of this successive confrontation should be the narrow stretch of landmass which has connected the Indonesian archipelago with the Indian subcontinent, which is the same route followed by the two-horned rhinos Sumatra.

The confirmation of this statement can be drawn from the findings of archaeological sites that lie along the present-day Bangladesh-India border. One of the most common features derived from the archaeological site is the type-technology of the tools used by the inhabitants of that specific site. For instance, after observing the excavated tools from the bordering areas of Sylhet and Tripura, Hazarika has commented that the “anyathian and neolithic tools from the Irrawaddy valley of Myanmar indicate close resemblances to the materials of Lalmai hills and Chaklapunji”, which is different from rest of the tool technology found in peninsular India (Hazarika, 2012: 52, Husne Jahan, 2016: 406). Additionally, the presence of natural fossil wood, silty sand with quartz, and ferro-silicate pallets in the stratigraphy of Chaklapunji provides necessary evidence of its similarity with the fossil wood industry in southern central Java-Patjitanian as well. Therefore, Chaklapunji shows a tendency of similarity with the typo-technology of southeastern Asia. Ramesh

(1986: 307) has observed the typo-technology of handadze, hand axe, flake, blades, hammer stone, etcetera found in Tripura as fossil wood. Sharma has mentioned settlers in Palaeolithic, providing examples of fossil wood such as handadze, cleaver, chopper and hand axe. He has also noted a highly developed flake-tool industry and a blade- tool industry in Tripura. There is even a possibility of adapting to a new type of technology by the migrating people from southeast Asia as the evidence of fossil wood is not observed beyond Chottanagpur plateau, Bardhwan, Birbhum, Midnapore of West Bengal, India.

However, it is not only Chaklapunji or Lalmai hills or Tripura or sites of West Bengal, but the prehistoric lithic assemblage of Northeast Indian and Bangladesh as a region is distinctive in character, because:

“It was a synthesis of two types of cultural traits, Southeast Asian and Indian.... Northeast India was situated between the two different environmental systems, the monsoonal tropics and the tropical rainforest zone, the regional ecology of Northeast India has had a major role in the growth and development of human culture in the area.”  
(Sharma qtd. in Barma, 2013: 796).

However, it really gets complicated when Sharma (qtd. in Barma, 2013: 796) states that the “affinities between the Neolithic tools of Southeast Asia and Northeast India were very clear, but certain bifacial artefacts were also similar to certain Middle Paleolithic assemblages from other parts of India” because, like all other regions of India Northeast India (also Bangladesh) falls victim to the tyranny of linearity; for example, while stone age implements from the *tillas* (hillocks) of Tripura was dated to the Late Pleistocene Age i.e. ~35690- 3050 BP using C14 method (Barma, 2013: 801); the site of Chaklapunji is dated to ~ 35,000- 3,000 BP i.e. 32,500 BC as Upper Pleistocene and 1500 BC as Neolithic based on the C 14 method (Sharma qtd. in Singha Roy, 2012: 12). Therefore, it

is a complex operation to confidently put a cultural phase against a date for northeastern Indian and Bangladeshi sites and India in general. The ‘date-cultural phase framework’ would work better if developed based on region-specific technology, population, ecology, movement, diet, climate, environment, and habit. Yet, the vast timeframe that has been mentioned here roughly encompasses the upper palaeolithic to the neolithic. This timeline also corresponds to the suggested timeline of the westward migration of Austroasiatic from southeast Asia.

Despite the lack of a robust ‘date-cultural phase framework’, the gradual and intense assimilation of Southeast Asian culture with the already existing local culture of Northeast India and Eastern and Northeastern Bangladesh is strongly evident. The sites also give testimony of a gradual yet steady migration. Speaking of migration and dispersal, Weinstein- Evron has cautioned about the use and understanding of such big words in the context of early human migration:

“We talk as if the early humans have bought a ticket. But they did not know where they were going. For them it was probably not even a movement, maybe it was 10 kilometres per generation.” (Weinstein-Evron qtd. in Stub, 2020).

All these discussions above infer inclusively to their chance of successive confrontations with two-horned rhinos along the way towards India, beyond as well as apart from their place of origin.

However, most importantly, these groups of people kept moving till Bhimbetka because, except them, nobody would potentially draw the rhino figurine. As humans always try to reconstruct their cultural part through description, analysis, and interpretation of material culture, the depiction of two-horned rhino can be analysed as an embodiment of the mentally perceived concept translated from cognitive blueprint into physicality. The concept is the part of ancestral knowledge; therefore, the depiction of a two-horned

rhino on the wall of Bhimbetka is an accumulation of collective consciousness. From this perspective, the depiction represents the ideas, beliefs, and values of specific social life migrating from Southeast Asia.

Cultural, linguistic and typo-technological analysis reveals the similarities between Southeast Asian and Indian peninsular cultural landscape which not only supports the claim of a westward migration from Southeast Asia but also indicates migration of the knowledge about Sumatran rhino from the eastern floodplains of Brahmaputra till Bhimbetka. The Austroasiatic population from Southeast Asia migrated to the west and entered India around 10,000 years ago with encounters with Sumatran rhino along the migration route. Therefore, Sumatran rhino was already an element of their existence which eventually transformed into an integral part of their social system. Such incorporation exhibits intimacy with the floral and faunal diversity. However, when compared, the paintings of Indian and Sumatran rhinos show quite a few interpretational differences. Close examination of the rhino figure of Urden reveals that although the body is drawn simply, the head has been marked with much more detail and precision (Neumayer, 2013: 135). Moreover, if the whole scene painted in a panel is observed, the rhino figure does not seem easy to place. One crucial factor that Tiwari (2000: 216) has noted is the arrangement of the depiction of rhino in rock shelters:

“In Indian rock shelters there are two types of figures. Sometimes the animal is shown alone or amongst other herbivores then there are figures of rhino hunt as well.”

While there are several paintings of one-horned rhinos being hunted or butchered across different rock shelters, the rare occurrence of two-horned rhinos is always meticulous and irenic, almost like a tribute. Therefore, the Sumatran rhino extends beyond being a mere element of livelihood and social system to being embedded into the belief system. In other words, the rhino figure on the cave wall of Urden might have a ritualistic value for depicting a fauna as a symbol

of power; protection is a common phenomenon observed around the cave paintings of the world. However, this specific proposition needs to be studied rigorously from a multi-disciplinary approach. Studies on rock art from all over the globe have unveiled that, “almost everywhere it is made to serve some purposes”, sometimes as part of some fertility ritual, sometimes wishing for or celebrating a good hunt, or as a totem or for curing the sick (Ghosh, 2007: 39). For instance, a descent (*gotra*) of the *Santals* is represented by the two-horned rhino as their totem (information retrieved through personal communication). These pieces of evidence connote the wave of westward migration to Bhimbetka.

Nevertheless, as much as it supports the occurrence of this particular wave of migration, in no way it intends to deny the influx of people from multiple origins as well as from multiple waves inhabiting Bhimbetka. Being said that, it is for sure that if the migration was from the other way that is eastward, the occurrence of rhino would have been non-existent. Therefore, it can be proposed that the same wave of the migratory population that encountered the Sumatran rhinos in the eastern Brahmaputra floodplains while migrating from Southeast Asia to the Indian peninsula during the Mesolithic, reached Bhimbetka. By the time they were there, the memory of those encounters had imbibed through ancestral knowledge, which helped them to draw the paintings of the two-horned rhinos.

However, it generates different discursive spaces as well. The representation is proof of evidence of faunal encounter and an example of giving physical expression to a hereditarily acquired knowledge. Notably, the correlation between migration and the manifestation of knowledge into materiality is not linear at all because the dispersal from one point to another is a result of the continuous confrontation with climate, already existing local human settlement, new types of technology, which forms the trajectory into layers of thick description. All these robust descriptions ultimately provide a strong discourse to the architectonics of human migration.

Therefore, the representation of a rhino and its correlation with a migrational wave channelizes many other parallel scopes for study beyond the discourse of the art and the artist.

## References

Agrawal, D.P., Krishnamurthy, R.V., Kusumnagar, Sheela., Pant, R.K. “Chronology of Indian prehistory from the Mesolithic period to the iron age. “*Journal of Human Evolution*, vol. 7(1), 1978, pp. 37-44.

Ahsan, Syed Mohammad Kamrul, Singha Roy, Jayanta. “Fossil wood artifacts and their locations at Chaklapunji, Habiganj district, Bangladesh: A discussion on recent observations”. [https://www.academia.edu/12824017/Fossil\\_wood\\_artifacts\\_and\\_their\\_locations\\_at\\_Chaklapunji\\_Habiganj\\_district\\_Bangladesh\\_A\\_discussion\\_on\\_recent\\_observations](https://www.academia.edu/12824017/Fossil_wood_artifacts_and_their_locations_at_Chaklapunji_Habiganj_district_Bangladesh_A_discussion_on_recent_observations)

Ali, Ahsan. *Santals of Bangladesh*. Institute of Social Research and Applied Anthropology, 1998.

Ansell, W.F.H. “A Note on the Position of Rhinoceros in Burma.” *The Journal of Bombay Natural History Society*, vol. 47, pp. 249–278., [www.rhinoresourcecenter.com/index.php?s=1&act=refs&CODE=note\\_detail&id=1165240219](http://www.rhinoresourcecenter.com/index.php?s=1&act=refs&CODE=note_detail&id=1165240219).

Ray, Ranesh, Ramanathan, AR on behalf of Archaeological Survey of India (Ray and Ramanathan). “*Rock Shelters of Bhimbetka: Continuity through Antiquity, Art & Environment*”, Archaeological Survey of India, 2003.

Banks, E. “A Popular Account of the Mammals of Borneo.” *Journal of the Malayan Branch of the Royal Asiatic Society*, vol. 9, no. 1, ser. 112, Nov. 1931, pp. 1–139. 112, [www.jstor.com/stable/41559784](http://www.jstor.com/stable/41559784).

Barma, Biswajit Deb. “A Preliminary Survey of Fossilwood Tools in the Saidra Valley, Tripura.” *Proceedings of the Indian History Congress*, vol. 74, 2013, pp. 795–804., <http://www.jstor.com/stable/44158881>.

Blyth, Edward. “A Memoir on the Living Asiatic Species of Rhinoceros.” *The Zoologist: A Popular Miscellany of Natural History*, vol. 31, 1873 pp. 8506–8520., [www.rhinoresourcecenter.com/index.php?s=1&act=refs&CODE=note\\_detail&id=1165255733&highlite=](http://www.rhinoresourcecenter.com/index.php?s=1&act=refs&CODE=note_detail&id=1165255733&highlite=).

Brooks, Robert R.R., Wakankar, Vishnu S., *Stone Age Painting in India*. Yale University Press, 1976.

Chakrabarti, D. K. *Ancient Bangladesh: A Study of Archaeological Sources*. Dhaka University Press Ltd, 1992.

Chakrabarti, D. K. *Archaeology of Eastern India*. Munshiram Manoharlal Publishers Pvt. Ltd. New Delhi, 1993.

Chattopadhyaya, Indrani. "Southasian microlith." *Encyclopedia Volume 8: South and Southwest Asia* edited by Peter N. Peregrine & Melvin Ember, Springer Science, 2003, pp. 315–317.

Chaubey, G., et al. "Population Genetic Structure in Indian Austroasiatic Speakers: The Role of Landscape Barriers and Sex-Specific Admixture." *Molecular Biology and Evolution*, vol. 28, no. 2, 2010, pp. 1013–1024., doi:10.1093/molbev/msq288.

Chitalwala, Y.M. "The disappearance of Rhino from Saurashtra: A study in palaeoecology." *Bulletin of the Deccan College Research Institute*, vol. 49, 1990, pp. 79–82, www.jstor.org/stable/42930271

Choudhury, Anwaruddin. "The status of the Sumatran rhinoceros in north-eastern India." *Oryx International Journal of Conservation*, vol. 31(2), 1997, pp. 151–152.

Dey, Arup. An Ancient History: Ethnographic Study of the Santal. *International Journal of Novel Research in Humanity and Social Sciences*, 2015, pp 31-38.

Dubey-Pathak, Meenakshi. "The Rock art of the Bhimbetka area in India." *Adoranten*, 2014, pp. 5-22.

The Editors of Encyclopaedia Britannica. "Bhimbetka rock shelters". *Encyclopaedia Britannica*, 2013, <https://www.britannica.com/place/Bhimbetka-rock-shelters>.

Evans, Vety. Major G. H. "Notes on Rhinoceroses in Burma, R. Sondaicus and Sumatrensis." *The Journal of Bombay Natural History Society*, XVI, 1905, pp. 555–561.

Foose, Thomas J., Strien, Nico van., "Asian Rhinos – Status survey and conservation action plan." International Union for Conservation of Nature and Natural Resources (IUCN), 1997.

Ghosh, Urmi. *Cognitive content of Indian rock art*. 2007. Maharaja Sayajirao University of Baroda. PhD thesis, Shodhganga. <http://hdl.handle.net/10603/59819>.

Hazarika, Manzil. "Lithic industries with Paleolithic elements of Northeast India". *Quaternary International*, vol. 269, 2012, pp. 48–58.

Husne Jahan, Shahnaz. "Prehistoric Archaeology in Bangladesh: An Overview." *A Companion to South Asia in the past* edited by Gwen Robbins Schug & Subhash R. Walimbe, 2016, pp. 399-411. *Wiley Online Library*, DOI:10.1002/9781119055280.

Islam, Mazharul. *The Socio-Cultural Study of Folklore*. Bangla Academy, June 2001.

Korisettar, Ravi. "Toward developing a basin model for Paleolithic settlement of the Indian subcontinent: Geodynamics, monsoon dynamics, habitat diversity and dispersal routes." *The Evolution and History of Human Populations in*

*South Asia* edited by Michael D. Petraglia and Bridget Allchin, Springer, 2007, pp 69-96.

Maloney, C.T. *Peoples of South Asia*. Holt Rinehart and Winston, 1974.

Mathpal, Yashodhar. *Prehistoric Painting Of Bhimbetka*. Abhinav Publications, 1984.

Mishra, V.N. "The Prehistoric Rock Art of Bhimbetka, Central India." *Journal of the National Centre for the Performing Arts*, vol. 10 (1), 1981, pp 1-16. *Sahapedia*, <https://www.sahapedia.org/the-prehistoric-rock-art-of-bhimbetka-central-india>

Neumayer, Erwine. *Prehistoric Rock Art of India*. Oxford University Press Delhi, 2013.

Patowari, Farzana, "From the early art to an ancient monastery- Explore the lesser-known caves near Bhopal." *Times of India*. 1 Oct. 2019.

<https://timesofindia.indiatimes.com/life-style/spotlight/from-the-early-art-to-an-ancient-monastery-explore-the-lesser-known-caves-near-bhopal/articleshow/71387971.cms>

Ramesh, N.R. "Discovery of stone age tools from Tripura and its relevance to the Prehistory of Southeast Asia" *Bulletin of the Geological Society Malaysia* 20, vol. I, 1986, pp. 289-310.

Reynolds, E.A.P. "Burma Rhino." *The Burmese Forester*, vol. 4, no. 2, 1954, pp. 104–108., [www.rhinoresourcecenter.com/index.php?s=c31bf54dba1ea93e7b240fb33e7955c6&act=refs&CODE=ref\\_detail&id=1165238532](http://www.rhinoresourcecenter.com/index.php?s=c31bf54dba1ea93e7b240fb33e7955c6&act=refs&CODE=ref_detail&id=1165238532).

Rookmaaker, L. Cornelis. "The Distribution of the Rhinoceros in Eastern India, Bangladesh, China and the Indo-Chinese Region." *Zoologische Anzeiger*, 1980, pp. 253–268., [www.rhinoresourcecenter.com/index.php?s=1&act=refs&CODE=ref\\_detail&id=1165238628](http://www.rhinoresourcecenter.com/index.php?s=1&act=refs&CODE=ref_detail&id=1165238628).

Schliesinger, Joachim. *Origin of the Tai People 3: Genetic and Archaeological Approaches*. Booksmango, September 2019.

Siddiquee, A.R. "Borendra Bhumir Chirayato Basinda: Nritattik Anusandhan." *Barendra Ancholer Itihas*, 1998

Sidwell, Paul. 2018. *Austroasiatic Studies: state of the art in 2018*. Presentation at the Graduate Institute of Linguistics, National Tsing Hua University, Taiwan, 22 May 2018.

Singha Roy, Jayanta. "Prehistoric Archaeological Evidence Related to Existence of Earliest Indigenous People in Sylhet", 2012

[https://www.academia.edu/2633623/Prehistoric\\_Archaeological\\_Evidence\\_Related\\_to\\_Existence\\_of\\_Earliest\\_Indigenous\\_People\\_in\\_Sylhet](https://www.academia.edu/2633623/Prehistoric_Archaeological_Evidence_Related_to_Existence_of_Earliest_Indigenous_People_in_Sylhet)

Sinha, Satya P., Sinha, Bitapi C., Qureshi, Qamar. *The Asiatic one-horned rhinoceros (Rhinoceros unicornis) in India and Nepal: Ecology, management and conservation strategies*. Lambert Academic Publishing, 2011.

Sonakia, Arun., Lumley, Henry *de*. “Narmada *Homo erectus* - A possible ancestor of the modern Indian.” *Comptes Rendus Palevol*, vol. 5(1-2), 2006, pp. 353-357.

Strien, N.J. Van. “Indigenous Tales on Rhinos.” *The Sumatran or Two-Horned Asiatic Rhinoceros: A Study of Literature*, 1974, pp. 57–58.

Stub, Sara Toth. “Will Asia Rewrite Human History?” *SAPIENS*, Klint Janulis, 20 Apr. 2020, [www.sapiens.org/archaeology/early-human-migrations/](http://www.sapiens.org/archaeology/early-human-migrations/).

Tiwari, Shiv Kumar. *Riddles of Indian Rockshelter Paintings*. Sarup & Sons, pp. 189, 2000, ISBN 9788176250863.

Zhang, X., Liao, S., Qi, X. *et al.* Y-chromosome diversity suggests southern origin and Paleolithic backwave migration of Austro-Asiatic speakers from eastern Asia to the Indian subcontinent. *Sci Rep* 5, 15486 (2015). <https://doi.org/10.1038/srep15486>

