
Report: Peering into the Prehistoric Past of Bandhavgarh National Park, central India

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Abstract:

This paper reports on recent discoveries of prehistoric findspots inside and around the Bandhavgarh National Park and Tiger Reserve (Madhya Pradesh, central India). These discoveries dramatically push the antiquity of a human presence in this region back from their known existence during the historic period into the prehistoric epoch. This also means that it was prehistoric people who were the first forest dwellers of the national park. The lithic scatters are marked by a variety of microlithic forms, with a strong possibility of an older, Upper Palaeolithic presence. The localities are several and are spread over about sixty square kilometres, within the core and buffer zones of the national park, some of them being close to different stretches of the Charanganga river. They suggest a prolonged hominin presence here, in time and space. One of these areas in particular, the Jwalamukhi Ashram site-complex (JMP) with multiple localities that have yielded early remains, holds immense potential for understanding the nature of prehistoric occupation in this region, their possible dates and their palaeoenvironmental contexts. Further, discoveries within the core region of the national park point to a deeper, and possibly different, relationship between prehistoric human populations in the forest, in relation to the known historical archaeological record in this region. Future work at the region will delve into characterising the nature of prehistoric occupation in the region through a study of the lithic assemblages noted and palaeoenvironmental reconstruction on the basis of the study of various environmental proxies.

Keywords: India; South Asia; Prehistoric archaeology; Microliths; Forest-scapes

1. Introduction and background

The issue which is absent in publications around the past of Bandhavgarh National Park and Tiger Reserve and correspondingly the theme of this paper is that of a prehistoric presence antedating the historical period here, a presence which has emerged from a recent reconnaissance there. Archaeological research within the Bandhavgarh National Park and Tiger Reserve has a deep and storied historiography, with systematic and scholarly investigations from the 1930s onwards (Chakravarti 1956). However, the presence of artificial caves in and around the Bandhavgarh hill was always known to local people, through oral traditions, and



mentioned in official records (see further, Lahiri *et al.* 2022; 2023). Early investigations into these caves, and the inscriptions that some of them present, situated the antiquity of anthropogenic agency in this region to around the second century CE (Chakravarti 1956; Lahiri *et al.* 2022; 2023). Archaeological research in this region has continued, uncovering more caves, inscriptions, sculptures and other freestanding structures (Bajpai 2022; Baker 2007: 137-142; Chakravarti 1956; Chakravarti 1995; Singh 2002: 38-39; 2021: 124-191). At the same time, till now, our knowledge of what preceded the creation of some 85 odd cave shelters has remained remarkably shadowy. While this may well be a consequence of a lack of meaningful research on the question of the settlement history of the area prior to the second century CE, but what has now been revealed about the prehistoric roots of Bandhavgarh does indicate, for the first time, the early existence of human populations there.

In the explorations that the second author has led since 2021, there was an emphasis on understanding the interrelationship of the forested landscape and meadows with the ancient and medieval remains in the Bandhavgarh National Park and Tiger Reserve (Lahiri *et al.* 2022; 2023). In the initial phases of this research, over multiple seasons of ground surveys aided by remote-sensing datasets and GPS devices, the team mapped the many archaeological features of the ancient and medieval periods in the Bandhavgarh landscape (Lahiri *et al.* 2022; 2023). In the current ongoing phase of this research that began in May 2023, various scientific investigations are underway to reconstruct both modern and ancient patterns of vegetation, environment and climate, through the collection of sediment and water samples for reconstructing palaeoenvironmental proxies through the study of stable isotopes, mineral magnetism, diatoms and other relevant and recoverable proxies. It was during one such collection from the Charanganga river in the buffer zone of the park that, for the first time, Satyendra Tiwari, a member of the exploration team, chanced upon a curiously shaped rock (Figure 1) near the vicinity of the Jwalamukhi Ashram. This immediately suggested a more ancient hominin presence in the regional landscape, one which had not figured in our own research there. Preliminary investigations to confirm the possible prehistoric presence within and around the Bandhavgarh National Park were then carried out in June 2023, the results of which are detailed in this paper. These initial investigations suggest an immense and untapped potential for understanding the prehistoric utilisation of this landscape, with more detailed investigations planned to better identify, locate and characterise the nature of the prehistoric presence in this region.

2. Location and Localities

The Bandhavgarh National Park and Tiger Reserve is located in Umaria district, Madhya Pradesh (central India) (Figure 2). It was declared as a national park in 1968 and then notified as a tiger reserve in 1993. The national park is spread over 23° 27' to 23° 59' N latitudes and 80° 43' to 81° 16' E longitudes. The core area of the tiger reserve is about 716.901 sq. km, which is divided between the national park proper and the Panpatha Wildlife Sanctuary. The entire area covered by the tiger reserve is 1536.936 sq. km, which includes its buffer and peripheral zones of about 820.035 sq. km (National Tiger Conservation Authority 2019).

The national park lies between the Vindhyan and Satpura hill ranges and exhibits a topography characterised by hills, valleys and plains (including large stretches of meadows). Two high hills dominate the Tala range - Bandhavgarh (named after the medieval fort on the hill which lends its name to both the hill and the national park) and Bandheini. Bandhavgarh hill is taller, and its flat-topped plateau summit is around 811 m AMSL. The whole landscape of the national park has elevations that range between 410-810 m AMSL. The shapes of the hills have to do with the rocks of which they are made up. Apparently, the flat topped Bandhavgarh and Bandheini with 'precipitous sides some distance down' before the sides slope

in sweeping full curves, is typical of what is described as ‘the sculpturing of the Mahadeva and other supra-Barakar sandstones’ which are pebbly and gritty with considerable clay (Hughes 1885: 142). It is this sandstone which facilitated the creation of the many historic period caves (National Tiger Conservation Authority 2019).



Figure 1. The lithic element found by Satyendra Tiwari which led to the present field investigations.

The vegetation here is classified as belonging to the tropical moist deciduous forest (3C/C3a) as defined by Champion and Seth (1964: 147-149). Many streams are noted in this area, important among them are the Charanganga, Damnar, Banbei, Ambanala, Johilla, Janadh and Andhiyari Jhiria. They are tributaries of the Son river, which in turn is a southern tributary of the river Ganga. Many lakes, ponds and springs are noted within this area, creating an ideal and well-watered habitat for wildlife (and prehistoric hominin populations). Many meadows are noted within the national park - Chakradhara, Bathana, Sehra, Raj Behra, Bhitri Vah, Jobi Vah, Kudra Kherwah and Barwah are some of the important ones. Some of these meadows and plains are also marshy and waterlogged (National Tiger Conservation Authority 2019) (see Lahiri *et al.* 2023, and sources therein, for more details about the floral and faunal populations of the national park).

These locations and localities were the result of random surface surveys conducted in concert with the ongoing documentation and investigations of later period rock-cut cave shelters and other constructed features. Areas of potential identified were then subjected to more intensive pedestrian surveys to document any visible surface lithic scatters.

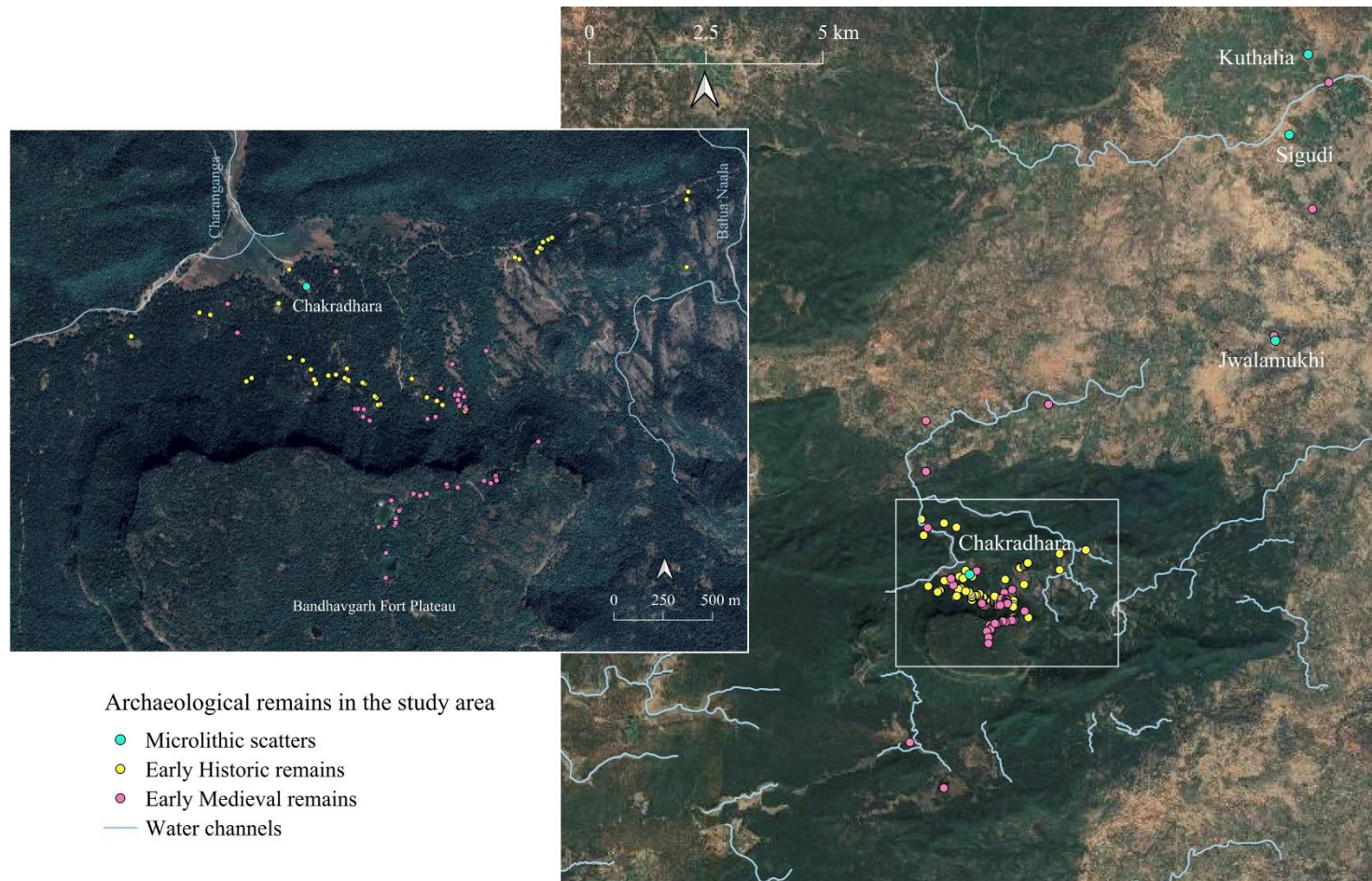


Figure 2. Map of the study area with the location of the various archaeological sites in the region. Inset: A close up of the Bandhavgarh Fort Plateau and Core Zone of the Bandhavgarh National Park and Tiger Reserve.

2.1. Chakradhara (23° 41' 41.879" N; 81° 02' 02.477" E)

This locality is within the national park, on the low flattish hill that slopes away from Cave 1. This cave marks the northern edge of the hill slope and has, in fact, been excavated in a way that this edge forms its roof. The Chakradhara meadow dominates the foreground of this area with the Charanganga river skirting the edge of the meadow. Lithic artefacts were identified on the surface of the hill (Figure 2, inset). Four elements were noted - one flake element and three core elements (Figure 3). These lithic elements suggest a microlithic character since the core elements include microblade cores. They are struck off crypto-crystalline silicas (the term crypto-crystalline silicas is used here as an umbrella term to include similar raw materials like chert, agate, chalcedony and others which cannot be securely characterised without petrographic analyses, and instead of providing insecure raw material characterisations, we prefer to use the generic term until future work related to raw material characterisation is undertaken. For more details regarding the same, see Srinivas 2022: 509). The raw material is local, with the crypto-crystalline silica clasts eroding from the conglomerate bedrock. This locality unlocks the hidden, as-yet-unknown prehistoric potential within the archaeological landscape of the Bandhavgarh National Park, presenting a peek into the possible prehistoric origins for the presence of humans within its core zone.



Figure 3. Lithic elements identified from the Chakradhara locality from within the core region of the Bandhavgarh National Park and Tiger Reserve.

2.2. Jwalamukhi Ashram site-complex (23° 44' 24.541" N; 81° 05' 53.562" E)

Multiple localities with lithic scatters are identified and noted near the Jwalamukhi Ashram (Figure 2). These lithic scatters are located along the stream banks of the Charanganga river which flows beside the Ashram (Figure 4). This area is within the buffer zone of the reserve

forest. The first identified lithic element (by Satyendra Tiwari) was collected from here. Lithic scatters are noted on both the left and right banks of the stream, and both upstream and downstream along the Charanganga from the original findspot. Further, lithic scatters are also noted along the many ephemeral feeder and tributary streams that flow into it.



Figure 4. The Charanganga river at the Jwalamukhi Ashram site-complex. Lithic artefacts are found on the banks and floodplains of this river.



Figure 5. The archaeological context. Lithic elements are eroding from the reddish-brown sediment at the Jwalamukhi Ashram site-complex, especially when in close relation to outcrops of the underlying bedrock sandstone.

Lithic scatters are noted wherever the underlying sandstone bedrock is exposed at the surface, or on the tops of the floodplains which presents a badland topography. At many instances (Figure 5), lithic elements can be seen eroding from the reddish-brown sediment noted all along the floodplain, as observable from some of the visible section profiles. In some instances, erosional activities of the ephemeral streams and rain water action expose the underlying lithic elements (Figure 6). At some of the findspots, the lithic elements can be seen in relation to calcium carbonate (or calcrete) nodules, which are presently noted as a lag deposit (Figure 7). The density of the individual localities and find-spots within this site-complex varies, with some presenting very dense scatters, while some being represented by only one (or few) visible surface finds.



Figure 6. Ephemeral streams and other erosional activities at the Jwalamukhi Ashram site-complex result in the increased visibility of the underlying archaeological record.



Figure 7. Calcrete (calcium carbonate) nodules are noted at some localities within the Jwalamukhi Ashram site-complex. They occur as lag deposits.

The noted lithic elements present core elements, flake elements and blade elements (Figure 8). Some lithic elements can also be considered, preliminarily, as retouched and flaked

elements. These artefacts appear fresh. Furthermore, the entire lithic reduction sequence appears to be represented at these localities (including cobble opening flakes, core trimming elements, undiagnostic debris elements and broken fragments), implying in situ stone manufacture at these localities. Any displacement of the artefacts seems to be limited, and they thus preserve their general area provenance. Lithic elements are struck of a variety of cryptocrystalline silicas, which is locally available as clasts eroding from the underlying sandstone bedrock. Rounded fluvial clasts of a similar raw material are also noted from the stream channel.



Figure 8. The range of lithic elements noted at the Jwalamukhi Ashram site-complex.



Figure 9. A possible Upper Palaeolithic flake element noted at the Jwalamukhi Ashram site-complex.

Most of the observable archaeological record represents a microlithic character for these lithic scatters. However, at a couple of localities, older, possibly Upper Palaeolithic, lithic

elements could be observed (Figure 9). However, more detailed and systematic surveys and documentation of the visible archaeological record is needed to truly capture the breadth of this observable record at the site-complex, which are planned in the near future.

2.3. Sigudi (23° 46' 47.862" N; 81° 06' 04.178" E)

A potential prehistoric site exists near Sigudi, about 1 km away, on the left side of the road to Pathera. At the moment, a very low density of finds was observed - with only one possible artefact noted (Figure 10). However, the landscape and the context here echoes what was observed at the Jwalamukhi Ashram Palaeolithic site-complex (Figure 11), thus warranting more investigations to securely evaluate the potential of this area.



Figure 10. A possible lithic element noted at the site of Sigudi.



Figure 11. General view of the Sigudi site drawing similar parallels to the landscape at the Jwalamukhi Ashram site-complex.

2.4. Kuthalia (23° 47' 43.771" N; 81° 06' 18.423" E)

Kuthalia is marked by a hemispherical ‘stupa’ which is unlikely to be earlier than the seventh century CE and is known to have yielded a Kalachuri coin (Figure 12). Within the

present-day complex of this ‘stupa’, one stone artefact, that can be considered a flake element displaying microlithic characteristics, was found (Figure 13). This isolated find in the campus of the ‘stupa’ may most probably signify a secondary context findspot. More investigations within the vicinity of the ‘stupa’ and associated landscape are necessary to characterise the prehistoric context in this region.



Figure 12. The hemispherical ‘stupa’ at Kuthalia



Figure 13. Flake element recovered from within the stupa complex at Kuthalia.

3. Discussion

This paper presents and reports the results of a preliminary investigation into the prehistoric occupation and presence of humans in the area which is currently the Bandhavgarh National Park and Tiger Reserve. The presence of multiple localities which present lithic scatters highlight the rich potential for a wide-ranging human presence, both in time and space. While, at present, the microlithic nature of some of the lithic scatters is evident, a possibility of an older, Upper or Middle Palaeolithic presence in the region cannot be ruled out. The nature of the microlithic elements observed suggest a prehistoric origin, thus, pushing the antiquity of the presence of humans in this area much earlier than the currently known dates of around the second century CE (or 1750 BP).

These scatters are within an area of about 60 sq. kms, and taken together, the presence of prehistoric populations here will help provide an entirely new perspective to approach the interrelationship between forests, the wilderness and humans in this area, thus, expanding upon the scope on currently ongoing research in the region. Prehistoric populations, incidentally, have left their archaeological signatures in other contiguous regions, such as the Narmada Valley (for e.g., Chauhan *et al.* 2017; Mishra *et al.* 2013) and Son Valley (for e.g., Mehra 2018; Sharma & Clark 1982). Thus, the presence of this prehistoric archaeological record in this region is not surprising. This region, and their populations, could have been included or incorporated as a part of such larger prehistoric population groups in their broader geography. If not, they may have at least interacted with them, maybe even serving as conduits for demographic or cultural exchange between the Narmada and Son river valleys. Such exchange could have also been expressed either through the demographic exchange of peoples and individuals, the cultural exchange of technologies and ideas, or simply a corridor of passage.

At present, however, more work is needed to ascertain, elaborate and test these considerations. Our understanding from the later, historic period archaeology in the region attests to the active movement of people through the forests here, engaging in trade and economic interactions, along with the circumstantial evidence for local populations whose voices have been lost to the passage of time (Lahiri *et al.* 2022; 2023).

Elsewhere, and further upstream from the river, near the modern-day settlement of Bijhariya, the banks and floodplains of the Charanganga present a yellowish-brown alluvial sediment. In places, over 1.5 m of this deposit can be noted, and there is a distinct absence of any lithic clasts in this geological horizon. Investigations in this sedimentary context, which we currently believe to be a more recent deposit than the reddish-brown archaeological horizon, did not present any lithic finds. Future work will explore more of the stream banks and floodplains of the Charanganga in order to establish the stratigraphical relationships between the various observable geological members.

More research is needed to fully understand and comprehend the true nature of the prehistoric occupation in this region and along the Charanganga, which are planned and will be incorporated with the ongoing research project at the Bandhavgarh Tiger Reserve. These include questions regarding the scale of human occupation, both in terms of its horizontal space and the vertical time period of occupation, and a detailed study of the possible lithic techno-complexes that can be identified at the various localities. In situ lithic analyses, intensive pedestrian surveys of the buffer zones, and reinvestigations of the forest trails and landscapes within the core zone of the national park are planned in future field seasons. Systematic and detailed investigations, including possible subsurface explorations, can help uncover the various nuances of the anthropogenic presence here and their relationship with the forests and wilderness.

Future work in the region will focus on the surface lithic scatters noted at JMP, characterising the nature of the visible stone tool assemblages. Due to the region being in a reserved forest, no direct collections of artefacts can be carried out. Plans include in situ lithic analysis to reconstruct prehistoric lithic technological behaviour, along technological and reduction sequence paradigms (as detailed in Srinivas 2022: 40-56; Srinivas & Singh 2023). The planned lithic analyses will attempt to detail the various lithic technological processes carried out in the region, giving us an insight into past human behaviours in this region, including adaptive strategies related to forest-scapes.

Moreover, ongoing scientific studies aimed at reconstructing the palaeoenvironmental context of the known archaeological record will also be expanded to include the newly identified prehistoric occupation in this region. Various sediment cores will be collected, at different localities, which will help reconstruct the palaeoenvironment of these sites, in general, and the region, broadly. Through the study of these various palaeoenvironmental proxies, it is hoped that we can better understand the forest-scapes in this area, and trace its changing nature. This will help contextualise the nature of human occupation in these forested landscapes, and also detail the context of the possible adaptation strategies employed by them. There is a rich archaeological record in the region, and unlocking the potential of this record will definitely contribute to ongoing discussions of the prehistory of South Asia.

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Data accessibility statement

The authors confirm that the data supporting the findings of this study are available within the paper. For further information, please write an email to the corresponding author.

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