ANANTAM IAS · OPTIONAL NOTES

Anthropology Optional Evolution of Indian Culture and Civilization; Palaeo-anthropological Evidence

Paper 2 · Unit 1

The stone-tool sequence that built Indian prehistory, the Indus city read as an anthropological problem rather than a ruin, and the two fossil stories, the Siwalik apes and the Narmada skullcap, that place India in human evolution.

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UPSC SYLLABUS

Evolution of the Indian Culture and Civilization: Prehistoric (Palaeolithic, Mesolithic, Neolithic and Neolithic-Chalcolithic) and Protohistoric (Indus Civilization). Pre-, Proto- and Post-Harappan cultures. Contributions of the tribal cultures to Indian civilization. Palaeo-anthropological evidences from India with special reference to Siwaliks and Narmada basin (Ramapithecus, Sivapithecus and Narmada Man).

Reading Indian Prehistory: The Stone Age Framework and How It Was Built

Paper 2 begins with a method problem before it becomes a content problem. Prehistory has no texts, so culture is reconstructed from stone tools, faunal remains, hearths and burials, and the whole chronology rests on typology and stratigraphy checked against geology. The frame you inherit, Palaeolithic to Mesolithic to Neolithic-Chalcolithic, is the Three Age idea localized to Indian rivers and hills, and knowing who localized it matters as much as the sequence itself.

- The discipline has a founding date and a founder. Robert Bruce Foote, a geologist of the Geological Survey of India, picked up a Palaeolithic handaxe at Pallavaram near Madras in 1863, and his lifetime of collecting earned him the standing title 'father of Indian prehistory'. Prehistory in India was born from geology, which is why stratigraphy, not art, anchors it.
- The classification is functional, not chronological in the neat European way. In India the ages overlap regionally and telescope: some regions are still Mesolithic hunter-gatherers while neighbouring valleys are Chalcolithic farmers, so 'stage' means mode of subsistence and technology, not a single national date. Say this early in any answer, because the examiner is testing whether you treat Indian prehistory as a mosaic or a ladder.
- H.D. Sankalia of Deccan College, Pune, is the figure who converted collecting into modern excavation, dating the Indian sequence through sites like Nevasa, Langhnaj, Ahar and Inamgaon and naming the Middle Palaeolithic the 'Nevasan'. When an answer needs an Indian authority on the prehistoric sequence, Sankalia is the safe attribution.
- The evidence classes to name: lithic (core, flake, blade, microlith, ground tools), that carry the technological argument; faunal and floral remains that carry subsistence; burials and rock art that carry belief and cognition; and the geological or radiometric dating (river terraces, potassium-argon, radiocarbon, luminescence) that carries chronology. Culture is inferred from the total assemblage, never from a single tool.
- The perennial trap is the 'Movius Line'. Hallam Movius drew a line separating an Old World handaxe zone from an eastern chopper-chopping-tool zone and placed the Indian northwest (the Soan) on the chopper side, implying peripherality. India straddles it: the peninsula is rich in Acheulean handaxes, and recent dating from Attirampakkam has undercut the whole 'backward east' premise. Treat the Movius Line as a discredited framing to be criticized, not a fact to be repeated.

KEY TERMS

Typology — Classification of tools by form and manufacture technique, the primary way prehistoric cultures are distinguished when no texts exist.

Nevasan — Sankalia's name for the Indian Middle Palaeolithic, after the site of Nevasa in Maharashtra, characterized by flake tools on finer raw material.

The Palaeolithic: Lower, Middle and Upper Stages in India

The Old Stone Age in India spans hunting-gathering bands using flaked stone from the earliest known human presence to about ten thousand years ago. The examiner wants the three-fold internal division, the type tools of each, the regional traditions, and the newer datings that have pushed the Indian record much older than the textbooks once allowed.

- Lower Palaeolithic: core tools, the handaxe and cleaver of the Acheulean, plus the pebble-tool chopper tradition. Two regional streams are traditionally contrasted. The Soan (Sohan) culture of the northwest, along the Sohan river in the Potwar of undivided Punjab, was a chopper-chopping-tool tradition studied by Helmut de Terra and T.T. Paterson (1935), who tied it to Himalayan glacial terraces. The 'Madrasian' of the peninsula is the Acheulean handaxe-cleaver tradition, named from Foote's Madras finds.
- Attirampakkam in Tamil Nadu is the single most important recent site and must be cited. Excavations by Shanti Pappu and Kumar Akhilesh dated an Acheulean presence to roughly 1.5 million years ago and, in a 2018 study, argued for a Middle Palaeolithic emergence around 385,000 years ago, far earlier than the diffusionist model predicted. This is the evidence that dismantles the Movius Line for India.
- Middle Palaeolithic, the Nevasan: a flake-tool industry of scrapers, points and borers made on finer raw material, using prepared-core (Levallois-like) technique, worked out by Sankalia at Nevasa on the Pravara river. The shift from core tools to flake tools is the diagnostic change.
- Upper Palaeolithic: blades and burins, bone tools, and the first clear symbolic behaviour. Blade-and-burin assemblages appear at sites like Renigunta and Patne; the Kurnool caves in Andhra Pradesh yielded bone tools; ostrich eggshell beads and engraved fragments (Patne, Bhimbetka) mark early ornament and personal decoration.
- The subsistence and biological correlate: these were mobile foraging bands, and anatomically modern Homo sapiens is associated with the Upper Palaeolithic, while the earlier stages belong to archaic Homo (see the Narmada skullcap below). Do not assign the whole Palaeolithic to modern humans.
- The precision caution: exact dates for the Indian Palaeolithic are actively contested and being revised, so anchor claims to named sites and workers (Attirampakkam, Pappu and Akhilesh; Nevasa, Sankalia) rather than to hard numbers you cannot defend.

The Indian Palaeolithic at a glance

Stage	Type tools	Technique	Representative evidence
Lower Palaeolithic	Handaxe, cleaver (Acheulean); chopper (Soan)	Core-tool, stone-on-stone flaking	Soan valley (De Terra and Paterson); Madrasian; Acheulean at Attirampakkam (~1.5 Ma)
Middle Palaeolithic (Nevasan)	Scrapers, points, borers	Flake tools on prepared cores, Levallois-like	Nevasa on the Pravara (Sankalia); Middle Palaeolithic emergence at Attirampakkam ~385 ka
Upper Palaeolithic	Blades, burins, bone tools, beads	Blade production; bone working	Renigunta, Patne, Kurnool caves; ostrich eggshell beads and engravings

KEY TERMS

Acheulean — The Lower Palaeolithic handaxe-and-cleaver industry, well represented in peninsular India, made by shaping a core into a symmetrical biface.

Movius Line — Movius's proposed boundary between a western handaxe zone and an eastern chopper zone; discredited for India by the peninsular Acheulean and by early dates at Attirampakkam.

The Mesolithic: Microliths, Rock Art and the Threshold of Food Production

The Mesolithic is the Holocene hunter-gatherer stage, a response to warmer post-glacial conditions, and it is a favourite of the paper because it sits exactly at the transition from foraging to farming and carries India's earliest art and its richest early burial record. The diagnostic artefact is the microlith; the diagnostic problem is the beginning of domestication.

- The microlith defines the age: tiny retouched blade tools, geometric (crescents, triangles, trapezes) and non-geometric (points, backed blades), often hafted in wood or bone to make composite tools, arrows and sickles. The composite tool is the technological leap, small standardized inserts replacing single large tools.
- The key sites, by region. Bagor in Rajasthan, on the Kothari river, is the largest and most fully excavated Mesolithic site (V.N. Misra), with microliths, structures and, crucially, early evidence of domesticated sheep and goat. Langhnaj in Gujarat; Adamgarh in Madhya Pradesh, which also yielded animal domestication evidence; and the Ganga plain sites of Sarai Nahar Rai, Mahadaha and Damdama with their well-preserved human burials.
- The subsistence significance: Bagor and Adamgarh push the beginnings of animal domestication back into a still-foraging Mesolithic context, so the neat Neolithic 'revolution' blurs. Domestication in India begins before the Neolithic package is complete, which is the point examiners reward.
- The burials at Sarai Nahar Rai, Mahadaha and Damdama give the earliest large sample of Indian skeletal biology, extended and sometimes double burials with grave goods, evidence of a settled or semi-settled foraging population with ritual treatment of the dead.
- Bhimbetka is the art anchor and belongs here as much as anywhere: the Mesolithic layers carry the bulk of its rock paintings, hunting scenes, dances, animals, painted in ochre and haematite. This is the first sustained record of prehistoric symbolic and social life in India, and it is treated in detail below as a palaeo-anthropological site.
- Frame the Mesolithic as a bridge, not a gap: warming climate, broad-spectrum foraging, microlithic technology, incipient domestication, art and burial, all pointing toward the food-producing Neolithic without yet being it.

KEY TERMS

Microlith — A small, often geometric, retouched stone blade or bladelet, hafted into composite implements; the type artefact of the Mesolithic.

Composite tool — A tool made by setting several small standardized stone inserts into a wooden or bone handle, the Mesolithic technological advance over single-piece tools.

The Neolithic and Neolithic-Chalcolithic Sequence

The Neolithic is the food-producing stage, settled villages, domesticated plants and animals, ground-and-polished stone tools and pottery. India has no single Neolithic but several regional ones on different dates, and the Chalcolithic, copper alongside stone, follows or overlaps them across central and peninsular India. The examiner wants the regional map and the leading sites, not a European template.

- Mehrgarh (Kachi plain, Balochistan) is the earliest and must lead the answer. Excavated from 1974 by Jean-Francois Jarrige, its aceramic Neolithic is dated to roughly the seventh millennium BCE, with wheat and barley, domesticated goat, sheep and cattle, mud-brick houses and even the earliest known dentistry. Mehrgarh is the local root from which the Harappan tradition grows, so India's urbanism has an indigenous farming ancestry.
- The regional Neoliths, each with its signature: the Kashmir Neolithic of Burzahom and Gufkral, with pit-dwellings, coarse grey pottery, bone tools, a dog buried with its master and menhirs, showing contact with the plains; the Belan valley sites of Koldihwa and Mahagara in Uttar Pradesh (G.R. Sharma), which yielded early rice, though the dates are contested and should be flagged as such; Chirand in Bihar with its rich bone-tool industry; the southern Neolithic of the Deccan granite country, marked by cattle-dung ash mounds and sites such as Utnur, Piklihal, Brahmagiri, Maski, Tekkalakota and Sanganakallu, studied by F.R. Allchin; and the northeastern Neolithic of Daojali Hading in Assam with shouldered celts and cord-marked pottery linking it to Southeast Asia.
- The southern ash mounds are a distinctively Indian problem worth naming: mounds of vitrified cattle dung, evidence of large cattle-keeping communities, first noted by Foote and interpreted by Allchin as periodic burning of dung heaps at pastoral settlements. They mark a cattle-centred Neolithic economy, not a grain-centred one.
- The Chalcolithic (Copper-Stone) cultures of central and western India, all non-Harappan or post-Harappan: the Ahar-Banas culture of Rajasthan (Ahar near Udaipur, black-and-red ware, copper smelting); the Kayatha and Malwa cultures of Madhya Pradesh (Navdatoli, excavated by Sankalia); and the Jorwe culture of Maharashtra (Jorwe, Nevasa, Inamgaon, Daimabad), with painted Jorwe ware.
- Inamgaon on the Ghod river, excavated by M.K. Dhavalikar, is the model Chalcolithic village, with house plans, storage, a possible chief's residence and a granary, giving the fullest anthropological picture of a non-urban farming community and evidence of its decline as the climate turned arid in the late second millennium BCE. Daimabad, the largest Jorwe site, yielded the famous bronze figurines (chariot, elephant, rhinoceros, buffalo).
- The Ganga-Yamuna doab adds the Ochre Coloured Pottery (OCP) and the Copper Hoards, and the point to make is interpretive: the Chalcolithic shows regional farming societies, some in contact with the Harappans and some inheriting from them, but never coalescing into a second urban civilization, they decline into village life, which sets up the question of continuity into historic India.

Regional Neolithic and Chalcolithic cultures of India

Culture / region	Leading sites	Diagnostic features
Early farming, Balochistan	Mehrgarh	Aceramic Neolithic ~7th millennium BCE; wheat, barley, goat, sheep, cattle; ancestral to Harappan tradition (Jarrige)
Kashmir Neolithic	Burzahom, Gufkral	Pit-dwellings, coarse grey pottery, bone tools, dog burial, menhirs; contact with the plains
Eastern / Belan Neolithic	Koldihwa, Mahagara, Chirand	Early rice (dates contested), bone-tool industry
Southern Neolithic	Utnur, Piklihal, Brahmagiri, Maski, Tekkalakota	Ash mounds, cattle-keeping, ground stone axes (Allchin)
Northeastern Neolithic	Daojali Hading	Shouldered celts, cord-marked pottery, Southeast Asian links
Chalcolithic (central/west)	Ahar-Banas, Kayatha, Malwa (Navdatoli), Jorwe (Inamgaon, Daimabad)	Copper with stone, painted wares, village farming; declines to villages (Dhavalikar)

KEY TERMS

Aceramic Neolithic — A Neolithic phase with farming and settled life but no pottery, exemplified by the earliest levels of Mehrgarh.

Ash mound — A mound of burnt, vitrified cattle dung marking the southern Indian Neolithic, evidence of a cattle-keeping pastoral economy.

Protohistoric India: The Indus (Harappan) Civilization

Protohistory means a society with a script that cannot yet be read, so it stands between prehistory and history. The Indus Civilization is that case: the subcontinent's first urbanism, spread over a vast area, with a writing system still undeciphered. The examiner wants the chronology, the discovery, the diagnostic features and, above all, its treatment as an anthropological problem rather than a list of ruins.

- Chronology in three phases: Early Harappan (roughly 3300 to 2600 BCE), the formative farming-town phase growing out of the Mehrgarh tradition; Mature Harappan (roughly 2600 to 1900 BCE), the urban climax; and Late Harappan (roughly 1900 to 1300 BCE), the deurbanized, regionalized aftermath. 'Pre-, Proto- and Post-Harappan' in the syllabus maps onto Early, Mature and Late.
- The discovery narrative to attribute correctly: Harappa on the Ravi was excavated by Daya Ram Sahni in 1921 and Mohenjo-daro on the Indus by R.D. Banerji in 1922, and Sir John Marshall announced the civilization to the world in 1924. The story is one of Indian and British archaeologists together, not a single discoverer.
- The spread and the key sites: Harappa and Mohenjo-daro in Pakistan; in India, Rakhigarhi in Haryana (now regarded as among the largest sites), Dholavira in Kutch (R.S. Bisht, exceptional water management and reservoirs), Kalibangan in Rajasthan (B.B. Lal and B.K. Thapar, a ploughed field and fire altars), Lothal in Gujarat (S.R. Rao, the celebrated dockyard) and Banawali. The civilization is Indus-Saraswati in geographic reach, extending well east of the Indus.

- Diagnostic urban features: grid-planned towns divided into a raised citadel and a lower town; standardized burnt bricks in a fixed 4:2:1 ratio; sophisticated covered drainage; the Great Bath at Mohenjo-daro; granaries; standardized weights in a binary-decimal system; steatite seals with the undeciphered script and animal motifs, including the so-called 'Pashupati' or Proto-Shiva seal and the ubiquitous unicorn.
- The anthropological puzzles the features raise: an apparent absence of monumental temples or royal palaces and no obvious kings' tombs, which has prompted arguments for a relatively less hierarchical or differently organized society than Mesopotamia or Egypt; craft specialization and long-distance trade (Mesopotamian references to 'Meluhha'); and standardization across a huge area implying strong shared norms without evident coercive display.
- The script caution: the Indus script is undeciphered and it is not proven to encode a language at all (some scholars argue it is a non-linguistic sign system). Never claim the script has been read or assign it confidently to a known language family; the honest position is that decipherment remains open.
- Decline is multi-causal, not invasion. The old idea of an 'Aryan invasion' destroying the cities, resting partly on Mortimer Wheeler's reading of unburied skeletons at Mohenjo-daro as a massacre, is discredited. The better-supported picture combines climatic drying and weakening monsoon, the shifting and drying of the Ghaggar-Hakra (Saraswati) river system, and the collapse of long-distance trade, producing gradual deurbanization rather than a single catastrophe.

KEY TERMS

Protohistory — The phase of a literate society whose script is undeciphered, so it is known archaeologically rather than through readable records; the Indus Civilization is the Indian example.

Citadel and lower town — The two-part Harappan settlement plan, a raised walled sector and a residential grid below it, the spatial signature of Indus urbanism.

Anthropological Significance of the Indus Civilization

This is the section the paper actually rewards, because it moves from archaeology to biological and social anthropology: what the Harappan skeletons say about population history, what the ancient DNA says about the Aryan question, what health and disease say about urban life, and what survives of the Harappans in later Indian culture. Handle the genetics with precision, since this is where confident overstatement is most tempting and most penalized.

- The old racial reading is to be reported and rejected, not endorsed. Marshall and B.S. Guha described the Mohenjo-daro and Harappa skeletons as a mixture of 'Proto-Australoid', 'Mediterranean', 'Alpinoid' and 'Mongoloid' types. This is dated racial typology; present it as the history of the discipline, not as biological fact.
- The skeletal-biology correction: Kenneth A.R. Kennedy's studies of the Harappan cemetery populations (notably Cemetery R-37 at Harappa) found biological continuity in the region and no evidence of a mass invading population or of a battle, directly rebutting Wheeler's 'massacre at Mohenjo-daro'. The skeletons are a normal cemetery sample, not war dead.
- Health and disease as urban anthropology: Gwen Robbins Schug's work on the Harappa cemeteries traced rising rates of interpersonal violence and infectious disease, including tuberculosis and leprosy, in the later phases, evidence that urban crowding and stress carried a biological cost. The earliest skeletal evidence of leprosy in the subcontinent comes from Balathal in Rajasthan (Robbins Schug and colleagues), which is a citable anthropological first.

- The Rakhigarhi ancient-DNA study is the current centrepiece and must be stated exactly. The genome of a single Harappan individual from Rakhigarhi (published 2019, Shinde, Narasimhan, Rai, Reich and colleagues) showed ancestry from an Iranian-related lineage that had separated before the spread of farming, mixed with 'Ancient Ancestral South Indian' (AASI) hunter-gatherer ancestry, and, critically, no Steppe pastoralist ancestry and no Anatolian farmer ancestry.
- The careful interpretation: the finding argues that the Harappans were an indigenous mix rather than migrants carrying West Asian farming, and that Steppe-derived ancestry, the genetic signal associated with Indo-European (so-called 'Aryan') speakers, entered the subcontinent later, in the second millennium BCE, after the mature Harappan phase. This is migration and admixture, not invasion, and it is a single-genome result whose broad reading is still debated; present it as strong evidence with an open interpretation, never as settled proof of any political claim.
- Cultural continuity is the other half of the significance: features that reappear in later Indian civilization, standardized weights and measures, cotton cultivation, the veneration of animals and of the pipal tree, mother-goddess figurines, seated 'yogic' figures and possible proto-Shiva imagery, suggest that elements of the great tradition have Harappan roots. State these as plausible continuities, and avoid asserting a direct unbroken religious line, which the evidence does not license.
- The summary claim worth writing: the Indus Civilization matters to anthropology because it is the subcontinent's first experiment in urban living, craft specialization and standardization without evident monarchy, and because its skeletons and genomes are now the primary evidence in the debate over who the peopling ancestors of South Asians were.

Harappan bioanthropology: claim and current position

Question	Older claim	Current position
Population 'race'	A blend of Proto-Australoid, Mediterranean, Alpinoid, Mongoloid types (Guha, Marshall)	Racial typology rejected; skeletal variation is clinal, race is not a valid biological unit
End of the cities	Aryan invasion; 'massacre' at Mohenjo-daro (Wheeler)	No invasion; skeletons are a cemetery sample (Kennedy); decline is climatic and economic
Population history / DNA	Migrant West-Asian farmers founded the cities	Rakhigarhi genome: Iranian-related + AASI ancestry, no Steppe, no Anatolian farmer; indigenous mix (Shinde, Reich et al., 2019)
Urban health	Prosperous, uniform society	Rising violence and infectious disease (TB, leprosy) in later phases (Robbins Schug); leprosy earliest at Balathal

KEY TERMS

AASI — Ancient Ancestral South Indian, a deep indigenous hunter-gatherer ancestry component of South Asians, one of the two main ancestries found in the Rakhigarhi Harappan genome.

Steppe ancestry — Central Asian pastoralist genetic ancestry associated with Indo-European speakers, absent from the sampled Harappan genome and inferred to have entered the subcontinent after the mature Harappan phase.

Palaeo-anthropological Evidence I: The Siwaliks, Ramapithecus and Sivapithecus

The Siwalik hills of the sub-Himalaya, with their rich Miocene-Pliocene fossil beds extending into the Potwar of Pakistan, gave India a starring and then a cautionary role in the story of human origins. The Ramapithecus episode is the single best teaching case in the paper for how a hominid claim can be built on a jaw fragment and then dismantled by molecular and fossil evidence. Get the reversal right; it is the whole point.

- The fossils and their finders: Sivapithecus was named by G.E. Pilgrim (1910) from Siwalik material; Ramapithecus was named by G. Edward Lewis (1934) of the Yale North India expedition, from jaw and tooth fragments recovered in the Siwaliks. Both are Miocene hominoids (roughly 12 to 8 million years old).
- The hominid claim: Lewis, and later and far more influentially Elwyn Simons and David Pilbeam in the 1960s, argued that Ramapithecus had a parabolic (rounded) dental arcade, reduced canines and thick molar enamel, and on that basis promoted it as the earliest known hominid, the first member of the human line, which would have made the human-ape split very ancient and placed its root in South Asia.
- The first blow was molecular. Vincent Sarich and Allan Wilson (1967), using immunological distance as a 'molecular clock', argued that humans and African apes had diverged only about five million years ago, far too recently for a fourteen-million-year-old Ramapithecus to be a hominid. Morphology and molecules were now in open conflict.
- The second blow was fossil and decisive. In 1980 to 1982 Pilbeam recovered a much more complete Sivapithecus face from the Potwar plateau, and it looked unmistakably like the orangutan (Pongo), a dished, concave face with close-set eye sockets. Ramapithecus was reinterpreted as the female of Sivapithecus, and both were placed on the orangutan (pongine) branch, not the human one.
- The verdict to state cleanly: Ramapithecus is no longer regarded as a human ancestor and the name has largely been sunk into Sivapithecus; Sivapithecus is an ancestor or close relative of the orangutan lineage. India's Siwalik apes belong to the great-ape story, not the hominid story.
- Why the paper loves this: it teaches that a hominid diagnosis cannot be read safely from teeth and jaws alone, that thick enamel and small canines are not exclusively hominid, and that molecular evidence corrected a morphological error, a clean illustration of how physical anthropology self-corrects. The Siwaliks remain first-rank Miocene ape territory, also yielding Gigantopithecus, so their scientific importance survives the demotion of Ramapithecus.
- Attribution discipline for the exam: Pilgrim named Sivapithecus, Lewis named Ramapithecus, Simons and Pilbeam pushed the hominid claim, Sarich and Wilson supplied the molecular refutation, and Pilbeam's own later Sivapithecus face closed the case. Never write that Ramapithecus is a confirmed human ancestor; that is the error the question is designed to catch.

KEY TERMS

Siwaliks — The sub-Himalayan foothill fossil beds of Miocene-Pliocene age, rich in fossil apes including Sivapithecus and Gigantopithecus, extending across northern India and Pakistan.

Molecular clock — The use of the rate of molecular (protein or DNA) change to date divergences; Sarich and Wilson's clock dated the human-ape split too recently for Ramapithecus to be a hominid.

Pongine — Belonging to the orangutan lineage; the group to which Sivapithecus (and the sunk Ramapithecus) is now assigned.

Palaeo-anthropological Evidence II: Narmada Man and Bhimbetka

If the Siwaliks gave India its ape fossils, the Narmada basin gave it its one Pleistocene human fossil, and Bhimbetka gave it the longest cultural sequence and the earliest art. Together they are the paper's core Indian palaeo-anthropology, and both demand careful, non-inflated statements of who found what and how it is classified.

- Narmada Man, the Hathnora fossil, is India's first and long its only pre-Holocene hominin fossil. It was discovered by Arun Sonakia of the Geological Survey of India in 1982 at Hathnora in the central Narmada valley of Madhya Pradesh, in Middle Pleistocene gravels associated with Acheulean tools and extinct mammalian fauna.
- What was found and what it is: a partial calvaria (skullcap), robust and thick-walled, with an estimated cranial capacity in the archaic range. Sonakia originally classified it as Homo erectus (proposing 'Homo erectus narmadensis'); Kenneth Kennedy and colleagues reassessed it as an archaic Homo sapiens, and it is variously read today as archaic sapiens or a Homo heidelbergensis-grade hominin. State the debate rather than picking a side as settled fact.
- Later finds strengthened the record: a fossil clavicle and rib fragments recovered subsequently by A.R. Sankhyan from the same Narmada deposits suggested a short, stocky body build. These extend the single skullcap into a fuller, if still fragmentary, picture.
- The significance of Narmada Man: it plugs the subcontinent into the Middle Pleistocene story of Homo dispersals, gives Indian physical anthropology an indigenous fossil to teach from, and shows that archaic humans lived in central India alongside an Acheulean toolkit. It is the answer to 'is there any hominin fossil evidence from India', and the honest answer is: yes, essentially this one, plus its associated post-cranial fragments.
- Bhimbetka, in the Vindhyan sandstone of Raisen district near Bhopal, was brought to scholarly attention by V.S. Wakankar in 1957 and is a UNESCO World Heritage Site (2003). It comprises hundreds of natural rock shelters, many of them painted.
- Why Bhimbetka is doubly important: first, it preserves a continuous cultural sequence from the Lower Palaeolithic (Acheulean) through the Mesolithic to historic times, one of the longest occupation records in India; second, its rock paintings, mostly Mesolithic and later, depicting hunting, dancing, animals and daily life in ochre and haematite, are among the earliest and richest evidence of prehistoric symbolic and social behaviour in the subcontinent.
- The anthropological payoff of Bhimbetka: the art is a window onto cognition, ritual and social organization that stone tools alone cannot give, and the stratified sequence lets prehistorians read cultural change in one place over a very long span. Pair it with the Narmada fossil and you have India's two pillars of palaeo-anthropology, one biological and one cultural.
- Attribution discipline: Sonakia found Narmada Man (1982), Kennedy reclassified it, Sankhyan found the postcranial fragments, and Wakankar discovered Bhimbetka (1957). Keep the classification of Narmada Man open (Homo erectus versus archaic Homo sapiens), which is precisely the sophistication the examiner is looking for.

India's core palaeo-anthropological evidence

Evidence	Location	Found by	Status / significance
Ramapithecus / Sivapithecus	Siwalik hills (India and Pakistan)	Lewis (1934) / Pilgrim (1910)	Miocene apes; reclassified as pongine (orangutan line); Ramapithecus no longer a hominid
Narmada Man (Hathnora)	Central Narmada valley, Madhya Pradesh	Arun Sonakia, GSI (1982)	India's only Pleistocene human fossil; Homo erectus vs archaic Homo sapiens debate; Acheulean-associated
Bhimbetka rock shelters	Vindhyan sandstone, Raisen, Madhya Pradesh	V.S. Wakankar (1957)	Continuous Lower Palaeolithic to historic sequence; earliest rich rock art; UNESCO site

KEY TERMS

Calvaria — The skullcap, the upper part of the braincase without the face or base; the form in which the Narmada hominin fossil survives.

Archaic Homo sapiens — A grade of robust, large-brained but non-modern humans; one of the two classifications proposed for Narmada Man, the other being Homo erectus.

Contributions of Tribal Cultures to Indian Civilization

The syllabus asks explicitly for the tribal contribution, and the correct frame is that Indian civilization is not a Sanskritic monolith into which tribes were absorbed one-way, but a two-way traffic in which tribal economies, deities and cultural forms fed the mainstream even as the mainstream absorbed tribes. Attribute the mechanism to Indian anthropologists precisely, because this is where the paper wants named theory, not sentiment.

- Economic and ecological contributions: domestication and cultivation of plants suited to forest and hill ecologies, including varieties of rice, minor millets, tubers and horticultural crops; the knowledge base of shifting (jhum) and terrace cultivation; and a deep ethnobotanical and medicinal knowledge of the forest that the mainstream drew on. Tribal India is a reservoir of agrobiodiversity and folk pharmacology.
- Religious contribution, the strongest single point: tribal deities, cults and sacred places have been absorbed into the Hindu great tradition. The classic example is Jagannath of Puri, widely held to originate as a tribal (Savara/Sabara) deity later Brahmanized into a form of Vishnu, a case studied in the sacred-complex tradition. Mother-goddess and Shakti cults, tree and animal veneration and many local guardian deities carry tribal ancestry.
- The mechanism has an Indian name and author: N.K. Bose's 'The Hindu Method of Tribal Absorption' (1941) described how Hindu society incorporated tribes not by conquest but by economic attraction, the tribe adopting settled plough agriculture and a caste-like occupational niche and gradually becoming a jati, losing tribal organization while contributing its deities and customs to the absorbing society. Absorption is two-way: the tribe Hinduizes, and Hinduism tribalizes.
- The little-and-great-tradition frame supplies the theory of exchange: Robert Redfield's little and great traditions, and McKim Marriott's paired processes of universalization (local practice rising into the great tradition) and parochialization (great-tradition elements descending and being reworked locally), model exactly how tribal and folk elements enter and leave the pan-Indian civilization. Milton Singer's work on the 'great tradition' at Madras belongs here too.

- Cultural and aesthetic contributions: folk and tribal art (Warli, Gond, Saura painting), dance, music, oral epic and mythology, terracotta and textile traditions, much of which has enriched Indian art and performance. Verrier Elwin devoted his career to documenting this contribution and to arguing for the value of tribal culture, and Nehru's 'tribal panchsheel', framed in the foreword to Elwin's 'Philosophy for NEFA', drew on it.
- The tribe-caste continuum is itself evidence of the contribution: the fact that tribe and caste shade into one another (a debate developed by F.G. Bailey and by Surajit Sinha, treated in the caste unit) shows that tribal society is not sealed off from Indian civilization but continuous with it, a source and not merely a recipient.
- The balanced conclusion to write: tribal cultures contributed the ecological knowledge, the deities and sacred geographies, and the artistic and folk forms that make Indian civilization plural rather than uniform, and the anthropological point, made by Bose and elaborated through the little-great-tradition model, is that the relationship was reciprocal absorption, not one-way assimilation.
- The honesty caution: avoid romanticizing 'the tribe' as a pristine survival or listing contributions without a mechanism. The examiner rewards the named process (Bose's absorption, Marriott's universalization) over a catalogue of dances and crops.

KEY TERMS

Hindu method of tribal absorption — N.K. Bose's (1941) account of how Hindu society incorporated tribes through the economic pull of settled agriculture, turning a tribe into a jati while itself absorbing tribal deities and customs.

Universalization and parochialization — Marriott's paired processes by which local (including tribal) practices rise into the great tradition and great-tradition elements descend and are reworked locally.

Last-mile revision

- Prehistory is reconstructed from stone tools, fauna, burials and art, dated by stratigraphy and radiometrics; Robert Bruce Foote (1863, Pallavaram) is the father of Indian prehistory, H.D. Sankalia the modernizer.
- Palaeolithic: Lower (Acheulean handaxe / Soan chopper), Middle (Nevasan flake tools, Sankalia), Upper (blades, burins, bone tools, beads). Attirampakkam (Pappu and Akhilesh) pushes Acheulean to ~1.5 Ma and Middle Palaeolithic to ~385 ka, breaking the Movius Line for India.
- Mesolithic: microliths and composite tools; Bagor (V.N. Misra, largest, early domestication), Adamgarh, Langhnaj, and the Ganga-plain burials of Sarai Nahar Rai, Mahadaha, Damdama; Bhimbetka rock art. Domestication begins before a full Neolithic.
- Neolithic: Mehrgarh (Jarrige, ~7th millennium BCE, ancestral to Harappa) leads; Burzahom-Gufkral (Kashmir, pit-dwellings), Koldihwa-Mahagara (rice, contested), Chirand, southern ash-mound sites (Allchin), Daojali Hading (NE). Chalcolithic: Ahar-Banas, Malwa, Jorwe (Inamgaon, Dhavalikar; Daimabad bronzes).
- Indus: Early (3300-2600), Mature (2600-1900), Late (1900-1300) BCE. Sahni at Harappa (1921), Banerji at Mohenjo-daro (1922), Marshall announces (1924). Grid towns, citadel + lower town, 4:2:1 bricks, drainage, Great Bath, weights, undeciphered script, no clear palaces or temples.
- Harappan bioanthropology: reject the old race typology; Kennedy shows continuity and no massacre; Robbins Schug shows rising disease/violence and earliest leprosy at Balathal; Rakhigarhi genome (Shinde, Reich et al., 2019) = Iranian-related + AASI, no Steppe, no Anatolian farmer, so admixture not invasion, Steppe ancestry arriving later.
- Siwaliks: Sivapithecus (Pilgrim 1910) and Ramapithecus (Lewis 1934). Simons and Pilbeam called Ramapithecus a hominid; Sarich and Wilson's molecular clock and Pilbeam's orangutan-like Sivapithecus face demoted it. Both are pongines (orangutan line), not human ancestors.
- Narmada Man (Hathnora): found by Arun Sonakia, GSI, 1982; a calvaria; Homo erectus (Sonakia) vs archaic Homo sapiens (Kennedy); India's only Pleistocene human fossil; Sankhyan later found postcranial fragments. Bhimbetka: Wakankar (1957), UNESCO site, longest sequence and earliest rock art.
- Tribal contribution is two-way: crops, ethnobotany and shifting-cultivation knowledge; tribal deities absorbed into Hinduism (Jagannath of Puri); N.K. Bose's 'Hindu method of tribal absorption' (1941); Marriott's universalization and parochialization; Elwin's documentation and Nehru's tribal panchsheel.

Common errors to avoid

- Treating the Indian Stone Age as a single national timeline. It is a regional mosaic: Mesolithic foragers and Chalcolithic farmers coexist; 'stage' means technology and subsistence, not one date.
- Repeating the Movius Line as fact. The peninsular Acheulean and the early dates at Attirampakkam make it a framing to be criticized, not a truth about a 'backward' Indian east.
- Assigning the whole Palaeolithic to modern humans. Anatomically modern Homo sapiens goes with the Upper Palaeolithic; the earlier stages belong to archaic Homo, including the Narmada hominin.
- Saying the Indus script has been deciphered or naming its language. It is undeciphered and may not even encode a language; the honest position is that decipherment remains open.
- Repeating the Aryan-invasion end of the Harappans and Wheeler's 'massacre'. Kennedy showed the skeletons are a cemetery sample; decline is climatic and economic, and any Steppe ancestry arrives after the mature phase.
- Overstating the Rakhigarhi DNA. It is one genome: Iranian-related plus AASI, no Steppe, no Anatolian farmer. It supports indigenous admixture and a later arrival of Steppe ancestry; it does not 'prove' or 'disprove' political claims, and its broad reading is still debated.
- Calling Ramapithecus a human ancestor. It was demoted by molecular evidence (Sarich and Wilson) and by Pilbeam's orangutan-like Sivapithecus face; both are pongines. This is the single most penalized error in this unit.
- Fixing Narmada Man as Homo erectus (or as Homo sapiens) with certainty. State the debate: Sonakia's Homo erectus versus Kennedy's archaic Homo sapiens.
- Describing tribal contribution as one-way assimilation into Hinduism. Bose's absorption is reciprocal, the tribe Hinduizes and Hinduism tribalizes, and Marriott's universalization models the upward flow of tribal and folk practice.
- Listing tribal 'contributions' (dances, crops) with no mechanism. Anchor the answer to N.K. Bose's absorption and Redfield-Marriott's little/great tradition, which is the theory the question wants.