

WRAP Exams · wrapexams.com

Prelims PYQ, Mains model answers, and copy evaluation. Write to the desk for this paper, a doubt, or the AI waitlist.

ask@wrapexams.com · +91 85951 84903 · wrapexams.com

UPSC Mains 2023 Anthropology Paper 1

Year-wise PYQ pack · WRAP model answers with canonical links

Official UPSC stems in exam order. Each live answer sits on one WRAP URL; this PDF is the year pack, not a second copy of the article. Open the link under a question for the full page.

<https://wrapexams.com/upsc/mains/anthropology/gs-1/2023/>

Q1(a) · 10 marks

Scope and relevance of Social and Cultural Anthropology

Anthropology GS 1 · 2023 · Social-cultural Anthropology.

Revision summary

Social and cultural anthropology studies learned life in the round, from Tylor's culture to Boas's fieldwork.

Malinowski and Radcliffe-Brown added living systems and social structure.

The scope is kinship, economy, politics, religion, and change.

Relevance lies in development, health, law, and comparison, as Srinivas and Elwin showed in India.

Geertz keeps public meaning inside that same scope.

Introduction

Social and cultural anthropology studies how people live together and how they make meaning. Its scope is the whole of social life, and its relevance is that those lives still have to be known on the ground.

Body

Scope

- **Edward Tylor** treated culture as a learned whole of knowledge, belief, art, law, and custom, which set the first wide frame for the subject.
- **Franz Boas** made fieldwork, language, and history the method, and he refused to rank peoples on a single ladder of civilisation.
- **Bronislaw Malinowski** at Omarakana in the Trobriand Islands showed that economy, kinship, magic, and law hang together in one living system.
- **A. R. Radcliffe-Brown** asked how institutions maintain social structure, so the scope includes both meaning and organisation.
- The field therefore covers kinship, economy, politics, religion, gender, law, and change, using ethnography and comparison rather than laboratory isolation.

Relevance

- Development, public health, and law need this knowledge because a scheme that ignores caste, clan, and local tenure often fails, as **M. N. Srinivas** showed for the Indian village and **Verrier Elwin** argued for tribal policy.
- Medical and applied anthropology use the same tools in clinics, camps, and courts, from **W. H. R. Rivers** onward to contemporary public-health ethnography.
- In a world of migration and media, **Clifford Geertz** and later global ethnography keep the subject relevant by reading public meanings, not only village custom.

Flow diagram

Social cultural anthropology -> Fieldwork holism
Social cultural anthropology -> Kinship economy religion law
Kinship economy religion law -> Policy health courts
Fieldwork holism -> Policy health courts

Conclusion

The scope of social and cultural anthropology is holism plus ethnography across institutions. Its relevance is practical: policy and comparison still need the local social fact.

Open WRAP page — <https://wrapexams.com/upsc/mains-answers/anthropology-gs-1/2023/scope-and-relevance-of-social-and-cultural-anthropology/>

Q1(b) · 10 marks

Cultural impact of Iron Age.

Anthropology GS 1 · 2023 · Iron Age

Revision summary

Iron opened heavier soils and denser farming after bronze.

Childe linked that productive change to urban and political growth.

In India, PGW and NBPW with iron mark the **Ganga plains**, and Hallur and megaliths mark the south.

Craft, coin, war, and kingship are the cultural effects.

The Iron Age is a social transformation, not only a metal phase.

Introduction

The Iron Age changed tools, farms, and fighting, and those changes remade culture. The impact is seen in surplus, craft, war, and the first durable states.

Body

Technology and subsistence

- Cheap iron ploughs and axes opened heavier soils and more forest, which **V. Gordon Childe** treated as part of a wider productive leap after bronze.
- In India, Painted Grey Ware and later Northern Black Polished Ware sit with iron in the **Ganga plains**, at sites such as **Atranjikhhera**, **Hastinapur**, and **Kausambi**.
- Southern and Deccan megaliths, and sites such as **Hallur**, show iron, horse, and burial wealth in a different cultural package.

Social and political culture

- Surplus grain supported specialists, coins, and towns, so rank and kingship could thicken into mahajanapadas and later empires.
- Iron weapons and forts changed warfare and tribute, which is a cultural fact of honour, caste-like rank, and royal ritual, not only a metallurgical fact.
- New cults, hero stones, and larger sacrificial and Buddhist or Jaina publics grew on that agrarian base.
- The cultural impact is therefore plough agriculture, craft guilds, urbanism, and a more unequal political order, not the mere presence of rusted blades.

Flow diagram

Iron tools weapons -> Plough surplus
Iron tools weapons -> War forts
Plough surplus -> Towns specialists states
War forts -> Towns specialists states

Conclusion

Iron cheapened clearing, farming, and fighting, and culture followed those new capacities. Indian PGW, NBPW, and megalithic worlds show the same shift in different regional forms.

Open WRAP page —

<https://wrapexams.com/upsc/mains-answers/anthropology-gs-1/2023/cultural-impact-of-iron-age/>

WRAP Exams

Q1(c) · 10 marks

Race and Ethnicity.

Anthropology GS 1 · 2023 · Race and racism, biological basis of morphological variation of non-metric and metric characters. Racial criteria, racial traits in relation to heredity and...

Revision summary

Race as a few fixed stocks fails Boas's plasticity evidence and Lewontin's genetic apportionment.

Race still organises inequality as a social category.

Ethnicity is a maintained boundary of language, history, and politics, as Barth argued.

Cohen showed ethnicity at work in urban competition.

In India the same people may be sorted by caste, tribe, or language depending on the boundary in play.

Introduction

Race and ethnicity both sort people into groups, but they do not sort the same way. Race claims biology; ethnicity claims history, language, and belonging.

Body

Race

- Classical racial types treated skin, hair, and skull as fixed stocks, a scheme that **Franz Boas** undermined by showing that head form changes with environment.
- **Richard Lewontin** showed that most genetic variation lies within so-called races, not between them, so race is a poor biological taxonomy.
- **UNESCO statements after 1950 and later human-genome work keep the same lesson:** clines and local populations exist; continental race as destiny does not.
- Race remains a social fact of discrimination, census, and violence even when it fails as a gene map.

Ethnicity

- **Fredrik Barth** in Ethnic Groups and Boundaries treated ethnicity as a boundary that people maintain, not a list of inner traits.
- Language, origin story, ritual, and political claim make an ethnic we, as **Abner Cohen** showed for urban ethnic politics.
- In India, tribe, caste, language, and religion can all be ethnicised; the anthropologist must say which boundary is at work, not paste one label on all difference.

Flow diagram

Human variation -> Race as weak biology

Human variation -> Ethnicity as boundary

Race as weak biology -> Social discrimination

Ethnicity as boundary -> Barth Cohen

Conclusion

Race is a weak biological class and a strong social injury. Ethnicity is a made boundary of belonging, and the two must not be used as synonyms.

Open WRAP page — <https://wrapexams.com/upsc/mains-answers/anthropology-gs-1/2023/race-and-ethnicity/>

WRAP Exams

Q1(d) · 10 marks

Customary laws and Environmental conservation.

Anthropology GS 1 · 2023 · Marriage

Revision summary

Customary law governs land, water, and forest through taboo, fine, and office.

Sacred groves in Kodagu, Kerala, and Meghalaya are standard Indian examples.

Ostrom's commons design matches many of those local rules.

Chipko and Niyamgiri show custom in political defence of habitat.

Custom can fail under market pressure, so recognition must be empirical, as in the **Forest Rights Act**.

Introduction

Customary law is the local rule of land, water, forest, and sanction. It can conserve an environment when the rule and the habitat still fit each other.

Body

Custom as conservation

- Sacred groves such as **kaavu** in Kerala, **devara kadu** in Kodagu, and **law kyntang** in Meghalaya close felling and hunting by ritual fine, which **Madhav Gadgil** and others have treated as living conservation.
- **Elinor Ostrom** showed that commons need nested rules, monitors, and sanctions; many customary systems already have those, without a state forest code.
- Chipko in the Garhwal Himalaya and Dongria Kondh defence of **Niyamgiri** show custom joining protest when the state or a company claims the hill.

Limits and law

- Custom can also exhaust a resource when population, market timber, or elite capture break the old restraint, so custom is not automatically green.
- The **Forest Rights Act, 2006**, and related PESA rules try to recognise community forest rights rather than treat all local use as theft.
- Anthropology's task is to record tenure, taboo, and sanction, then ask whether those rules still match ecology under new markets.

Flow diagram

Customary law -> Sacred grove pasture
Customary law -> Sanction and taboo
Sacred grove pasture -> Conservation
Market and state -> Customary law

Conclusion

Customary law can protect groves, pastures, and hills when rights and sanctions are real. Conservation policy works better when it recognises those rules instead of erasing them.

Open WRAP page — <https://wrapexams.com/upsc/mains-answers/anthropology-gs-1/2023/customary-laws-and-environmental-conservation/>

WRAP Exams

Q1(e) · 10 marks

Gene expression.

Anthropology GS 1 · 2023 · The biological basis of Life

Revision summary

Expression is transcription plus translation under regulatory control.

Crick's central dogma names the default flow from DNA to protein.

Enhancers, chromatin, and splicing decide cell-specific products.

Lactase persistence and Tibetan EPAS1 are anthropological examples of regulatory change.

Epigenetic marks link environment to expression without rewriting the DNA code.

Introduction

Gene expression is the turning of DNA sequence into RNA and protein at the right time and place. A genotype is not a finished trait until this switchboard has worked.

Body

The process

- Transcription copies a gene into messenger RNA, and translation at the ribosome builds a polypeptide, which **Francis Crick** placed in the central dogma of molecular biology.
- Promoters, enhancers, transcription factors, and chromatin packing decide which loci are on in a liver cell and off in a neuron.
- Alternative splicing and RNA editing can make more than one product from one locus, so one-gene-one-trait talk is too crude for anthropology.

Why anthropologists need it

- Lactase persistence is a regulatory change near the lactase gene, not a new digestive organ, which is why dairying cultures and genotype must be read together, as in European and some African pastoral histories.
- High-altitude EPAS1 regulation in Tibetans, and methylation changes under famine or stress, show expression and epigenetics as part of human adaptation.
- Disease risk, growth, and pigmentation are therefore expression profiles in environments, not a fixed racial essence.

Flow diagram

DNA -> Transcription
Transcription -> Translation
Translation -> Protein trait
Environment regulators -> Transcription

Conclusion

Gene expression is regulated transcription and translation, not the mere presence of a locus. Human variation in diet, altitude, and disease is often a story of when genes are on.

Open WRAP page — <https://wrapexams.com/upsc/mains-answers/anthropology-gs-1/2023/gene-expression/>

Q2(a) · 20 marks

Discuss major species of *Australopithecus* discovered from South and East Africa. Describe the discovery, physical features and significance of Taung baby.

Anthropology GS 1 · 2023 · Plio-pleistocene hominids in South and East Africa

Revision summary

Australopithecus is a small-brained African biped of the Pliocene and early Pleistocene.

East African species include *A. anamensis*, *A. afarensis*, and *A. garhi*.

South African species include *A. africanus* and *A. sediba*, with Little Foot as a key skeleton.

Taung was found in 1924 and named by Raymond Dart in 1925.

The child shows a downward foramen magnum, small canines, and an ape-sized brain.

Significance is the African origin argument and the type of *A. africanus* after early rejection.

Introduction

Australopithecus is the Pliocene-early Pleistocene African hominin with small brains, large chewing teeth, and bipedal hips. South and East African caves and beds have yielded the named species, and the Taung child is the find that opened that file.

Body

East African species

- ***Australopithecus anamensis***, named by **Meave Leakey** from Kanapoi and Allia Bay, Kenya, is among the earliest, with a primitive jaw and a tibia that already suggests upright walking.
- ***Australopithecus afarensis* is the best-known East African species: Lucy** (AL 288-1) from Hadar, Ethiopia, recovered by **Donald Johanson**, and the **Laetoli** footprints reported by **Mary Leakey**, show a small-brained biped with curved fingers.
- ***Australopithecus garhi*** from Bouri, Middle Awash, associated with **Berhane Asfaw** and **Tim White's** team, has larger postcanine teeth and has been discussed beside early stone-tool cut marks.
- Later named East African forms such as ***A. deyiremeda*** add diversity beside ***Kenyanthropus platyops***, which some workers still compare with the australopith grade.

South African species

- ***Australopithecus africanus*** is the South African type species, from Taung, then **Sterkfontein** and **Makapansgat**, with **Robert Broom's** adult finds such as Mrs Ples confirming Dart's child.
- ***Australopithecus sediba*** from Malapa, announced by **Lee Berger**, mixes australopith and more Homo-like pelvis and hand traits at about 2 million years.
- **Little Foot** (StW 573) from Sterkfontein, associated with **Ron Clarke**, is often placed in *A. prometheus* or in *africanus*; either way it is a near-complete South African skeleton.
- Robust forms from Kromdraai, Swartkrans, and Olduvai are usually now ***Paranthropus*** (*P. robustus*, *P. boisei*), not *Australopithecus*, and should be named as cousins, not as the same genus.

Taung baby: discovery

- In 1924 a limestone quarry at **Taung**, then in the northern Cape, yielded a child's skull, mandible, and natural endocast that reached **Raymond Dart** in Johannesburg.
- Dart named *Australopithecus africanus* in *Nature* in 1925 and argued that the child was a hominin, not an ape.

Taung baby: features

- The child was about three to four years old on dental eruption, with a mixed deciduous and first-molar set.
- The endocast suggested a brain larger than a chimpanzee of similar age in Dart's reading, though still far below later *Homo*.
- The foramen magnum sits toward the underside, which Dart used as evidence of upright carriage.
- Canines are small, the face is less projecting than in living apes, and there is no simian shelf of the kind expected in a young ape.

Taung baby: significance

- Taung shifted the search for human origins toward Africa, against the then-preferred European and Asian candidates and against **Pitldown**.
- **Arthur Keith** and others rejected an infant from a quarry; Broom's later adults and East African work after the 1950s reversed that rejection.
- Taphonomy later suggested a bird of prey may have taken the child, which is a caution about cave death, not a denial of the taxon.
- The specimen remains the type of *A. africanus* and the teaching start of australopith bipedalism with an ape-sized brain.

Flow diagram

East Africa -> *A. anamensis*
East Africa -> *A. afarensis* Lucy Laetoli
South Africa -> *A. africanus* Taung
South Africa -> *A. sediba* Malapa
A. africanus Taung -> Dart 1925

Conclusion

East Africa supplies *anamensis*, *afarensis*, and related named species; South Africa supplies *africanus*, *sediba*, and Little Foot. The Taung child is the 1924-25 discovery that made that African biped real to science, even before the adult caves and Hadar confirmed it.

Open WRAP page — <https://wrapexams.com/upsc/mains-answers/anthropology-gs-1/2023/discuss-major-species-of-australopithecus-discovered-from-south-and-east-africa-describe-the-discovery-physical-features-and-significance-of-taung-baby/>

Q2(b) · 15 marks

Discuss the Paleolithic environment in light of available evidences with special reference to India.

Anthropology GS 1 · 2023 · Paleolithic

Revision summary

India's Paleolithic climate is monsoon and drought inside global Pleistocene cycles.

Attirampakkam shows early Acheulian in the south.

Hunsgi-Isampur show factory sites on limestone.

Didwana records Thar palaeolakes and dunes.

Hathnora places a hominin in Narmada river fauna.

Toba ash at Jwalapuram is a marker whose demographic effect is debated.

Bhimbetka and Son-Belan track later shelter and valley use.

Introduction

The Indian Paleolithic was lived in Pleistocene climates driven more by monsoon and drought than by European ice sheets. Environment must be read from sediments, fauna, dunes, and dated sites, not from a copied Alpine glacial list.

Body

Pleistocene setting

- Global glacial-interglacial cycles still set sea level and temperature, but in India the practical rhythm is stronger and weaker monsoon, wetter and drier Thar, and shifting rivers.
- Siwalik and Narmada deposits, and Himalayan loess and terrace sequences, give the long terrestrial clock for that Pleistocene.

Evidence, with Indian sites

- Acheulian occupations at **Attirampakkam** in Tamil Nadu, dated by **Shanti Pappu's** team to well over a million years, show hominins already in a monsoon peninsula, not only in a northern ice-edge world.
- The Hunsgi-Baichbal valleys and **Isampur** in Karnataka preserve Acheulian factory landscapes on limestone, which implies water, raw stone, and game in a savanna-woodland mosaic.
- The Soanian pebble-tool debate in the Siwaliks records a different northern raw-material and terrace setting, whether or not every collection is now accepted as a culture.
- Thar evidence from **Didwana** and the 16R dune profile shows palaeolakes and dune building, so Paleolithic groups used wet pulses in an arid belt.
- **Hathnora** on the Narmada yielded a hominin calvaria in a riverine Pleistocene fauna of elephant, horse, and cattle kin, which is an environmental as well as a fossil fact.
- Toba ash at **Jwalapuram** and related southern sites is a volcanic time-marker; whether it caused a long Indian bottleneck is debated by **Michael Petraglia** and others, but the ash is still an environmental event in the record.
- **Bhimbetka** and the Son-Belan sequences studied by **G. R. Sharma**, later teams, and rock-shelter palynology show later Pleistocene to Holocene shifts toward microliths as forests and grasslands reorganised.

- **Fauna, pollen, and isotopic work together indicate mosaic habitats:** grassland, gallery forest, and seasonal water, not a single jungle or a single desert.

How to use the evidence

- Environment is reconstructed from dated stratigraphy first, then from tools as behaviour inside that setting.
- India does not copy the European sequence of named glaciations; monsoon proxies and local basins are the right language.

Flow diagram

Pleistocene monsoon -> Rivers Narmada Son
Pleistocene monsoon -> Thar dunes lakes
Pleistocene monsoon -> Hunsgi Attirampakkam
Rivers Narmada Son -> Occupation
Thar dunes lakes -> Occupation
Hunsgi Attirampakkam -> Occupation

Conclusion

Indian Paleolithic environments were Pleistocene monsoon landscapes of river, dune, plateau, and shelter. Attirampakkam, Hunsgi, Didwana, Hathnora, Jwalapuram, and Bhimbetka are the evidence, not a borrowed ice-age textbook.

Open WRAP page — <https://wrapexams.com/upsc/mains-answers/anthropology-gs-1/2023/discuss-the-paleolithic-environment-in-light-of-available-evidences-with-special-reference-to-india/>

Q2(c) · 15 marks

Elucidate the different forms of malnutrition. Describe protein-calorie malnutrition with suitable examples.

Anthropology GS 1 · 2023 · The biological basis of Life

Revision summary

Forms of malnutrition are undernutrition, micronutrient shortage, overnutrition, and imbalance with infection.

PCM is protein-energy shortage, classically marasmus and kwashiorkor.

Cicely Williams named kwashiorkor from West African weaning oedema.

Jelliffe and Waterlow indices remain the teaching toolkit beside WHO standards.

Indian examples include NFHS stunting, drought wasting, and starchy weaning.

Policy response includes ICDS and POSHAN, but household inequality still sorts who is malnourished.

Introduction

Malnutrition is a mismatch between what the body needs and what it receives, including too little, too much, and the wrong mix of nutrients. Protein-calorie malnutrition is the severe energy-and-protein end of that mismatch in children and the sick.

Body

Forms of malnutrition

- Undernutrition is shortage of energy or protein, seen as underweight, wasting, and stunting on **Gomez** and **Waterlow** style indices and on current WHO growth standards.
- Micronutrient malnutrition, or hidden hunger, is shortage of iron, iodine, vitamin A, zinc, or folate, which may sit in a child who does not look starved.
- Overnutrition is excess energy, seen as overweight, obesity, and metabolic disease, now common in Indian cities beside persistent rural undernutrition.
- Imbalance includes too little protein with enough bulk starch, or enough calories with infection that wastes the diet, so malnutrition is not only an empty granary.
- **D. B. Jelliffe** taught field workers to combine anthropometry, diet history, and clinical signs rather than trust one label.

Protein-calorie malnutrition

- Protein-calorie malnutrition, also called protein-energy malnutrition, is combined shortage of energy and protein, often with infection.
- **Marasmus** is wasting: a very low weight-for-height, old-man face, and hunger, typically in early weaning failure or famine. The child is adapted to starvation by using fat and muscle.
- **Kwashiorkor**, named by **Cicely Williams** from the Gold Coast, is oedema, fatty liver, skin and hair change, and often apathy after a starchy weaning diet that is low in protein relative to need.
- Marasmic-kwashiorkor mixes wasting with oedema and is common in real wards, which is why the two poles should not be treated as pure types only.
- Indian examples include severe wasting in drought years, tribal hamlets with high NFHS stunting, and kwashiorkor-type oedema where cassava, maize, or thin cereal gruels replace milk and pulses after weaning.

- **ICDS, POSHAN Abhiyaan**, and the Public Distribution System are the policy face of the same biology: growth monitoring, supplementary food, and infection control.

Anthropological reading

- Intra-household allocation, caste kitchens, and seasonal lean months turn a national food surplus into a malnourished girl or landless child.
- PCM is therefore ecology plus infection plus inequality, not a single nutrient slogan.

Flow diagram

Malnutrition -> Undernutrition
Malnutrition -> Micronutrient
Malnutrition -> Overnutrition
Undernutrition -> PCM
PCM -> Kwashiorkor
PCM -> Marasmus

Conclusion

Malnutrition includes under-, micro-, and over-nutrition. Protein-calorie malnutrition is marasmus, kwashiorkor, and their mix, and Indian field examples still sit in weaning, infection, and unequal households.

Open WRAP page — <https://wrapexams.com/upsc/mains-answers/anthropology-gs-1/2023/elucidate-the-different-forms-of-malnutrition-describe-protein-calorie-malnutrition-with-suitable-examples/>

Q3(a) · 20 marks

What is hominization process? Discuss the major trends in human evolution with the help of suitable examples and illustrations.

Anthropology GS 1 · 2023 · Biological and Cultural factors in human evolution.

Revision summary

Hominization is the process of becoming human by mosaic anatomical and behavioural change.

Dart showed bipedalism before a large brain.

Major trends are upright walking, canine reduction, brain growth, delayed childhood, tools, fire, and symbolism.

Laetoli, Lucy, Taung, Olduvai, Gona, and Dmanisi illustrate those trends.

Side branches such as Paranthropus show that not every hominin became Homo.

Draw a branching process, not a racial ladder.

Introduction

Hominization is the process by which a Miocene ape lineage became bipedal, small-canined, large-brained, tool-using, and cultural. The major trends are those anatomical and behavioural shifts, documented by fossils and archaeology rather than by a single missing link.

Body

What hominization means

- The term names a mosaic process, not one mutation that made a human.
- **Raymond Dart** used the African australopiths to argue that upright walking preceded a large brain, against the Piltdown preference for brain-first.
- **Sherwood Washburn** and **Kenneth Oakley** tied tools, hunting, and a feedback loop of hand, brain, and culture; later work kept the loop but added scavenging, sharing, and long childhood.

Bipedalism

- The earliest clear trend is habitual upright walking, seen in *A. afarensis* pelvis and knee, in the **Laetoli** prints, and already hinted in *A. anamensis* tibia.
- **Owen Lovejoy** argued that bipedalism freed the hands and fitted a provisioning social life; other models stress thermoregulation or feeding in mixed woodland.
- The foramen magnum under the Taung skull is the old illustration of this trend.

Dentition and face

- Canines reduce, the diastema closes, and thick-enamelled chewing teeth expand in australopiths, then reduce again in later Homo as tools and cooking take over processing.
- Prognathism declines from *afarensis* through *Homo erectus* to *Homo sapiens*.

Brain, childhood, and birth

- Encephalization rises sharply in *Homo habilis* / early Homo and *Homo erectus*, which **Phillip Tobias** stressed at Olduvai, and again in later Homo.

- A larger brain with a narrower bipedal pelvis implies more helpless infants and longer learning, which is a social as well as a neural trend.

Tools, fire, and ranging

- Oldowan flakes at **Gona** and **Olduvai**, then Acheulean handaxes with Homo erectus at **Olorgesailie** and in India at **Attirampakkam** and Hunsgi, show extra-somatic processing.
- Fire, camps, and long-distance ranging appear more clearly with Homo erectus, including **Dmanisi** out of Africa and later Asian sites.
- Language and symbolic culture are the last major trend, illustrated rather than proved by Broca-area endocasts, hyoid fossils, and Upper Paleolithic art such as **Chauvet** and Indian later prehistoric painting at **Bhimbetka**.

Mosaic, not a ladder

- Paranthropus specialised in chewing and did not become Homo.
- Homo naledi and Homo floresiensis show that brain size and culture do not always move in lockstep.
- The illustration to draw in an answer is a flowchart from bipedal ape to tool-using Homo, with side branches, not a straight staircase of races.

Flow diagram

Miocene ape -> Bipedalism
 Bipedalism -> Small canines
 Bipedalism -> Tools Oldowan
 Tools Oldowan -> Encephalization Homo
 Encephalization Homo -> Fire language culture

Conclusion

Hominization is the mosaic of bipedalism, dental change, brain growth, tools, and culture. Fossils from Taung, Hadar, Olduvai, and Dmanisi, and tools from Gona to the Acheulean, are the illustrations, not a single transformation.

Open WRAP page — <https://wrapexams.com/upsc/mains-answers/anthropology-gs-1/2023/what-is-hominization-process-discuss-the-major-trends-in-human-evolution-with-the-help-of-suitable-examples-and-illustrations/>

Q3(b) · 15 marks

How did Clifford Geertz look at religion. Differentiate between anthropological and psychological approaches to the study of religion.

Anthropology GS 1 · 2023 · Symbolic and interpretive theories (Turner, Schneider and Geertz)

Revision summary

Geertz defined religion as a cultural system of symbols that found moods and motivations in a factual-feeling order.

Thick description of public ritual is his method, as in Bali and Java.

Anthropological approaches treat the sacred as social, from **Durkheim** to Evans-Pritchard and Turner.

Psychological approaches treat experience, projection, and mental architecture, from James and Freud onward.

Tylor's animism is intellectualist psychology in anthropological dress.

Geertz sides with public meaning, not with private psyche as the starting point.

Introduction

Clifford Geertz treated religion as a public system of symbols, not as a private feeling. That stance is anthropological, and it differs from psychological approaches that start inside the mind.

Body

Geertz on religion

- In the essay **Religion as a Cultural System**, collected in *The Interpretation of Cultures* (1973), Geertz defines religion as a system of symbols that establishes powerful moods and motivations by clothing a picture of order with an aura of factuality.
- Those moods then seem uniquely realistic, which is why a ritual is not a metaphor the believer sees through.
- **Thick description is the method: the ethnographer reads the public code, as in a Javanese or Balinese rite, the way Geertz read the Balinese cockfight** as a story people tell themselves.
- Models of reality and models for action meet in sacred symbols, so cosmology and ethics are one enacted web.
- Geertz is close to **Max Weber** on meaning and far from a search for the origin of gods in a single psychic error.

Anthropological approaches

- **Anthropology treats religion as social and public: Émile Durkheim** in *The Elementary Forms of Religious Life* made the sacred a figure of the group, illustrated by Australian totemism.
- **Bronislaw Malinowski** at the Trobriands treated magic and ritual as practical anxiety-management in gardening and canoe travel, still a social institution.
- **E. E. Evans-Pritchard** on **Nuer** religion and Azande witchcraft showed coherent local thought, not childish mentality.

- **Victor Turner** on **Ndembu** ritual treated symbols as operators in social drama, which complements Geertz's textual reading.
- The unit is the rite, the congregation, the symbol, and the local cosmos.

Psychological approaches

- **Psychology starts with the individual mind: William James** in *The Varieties of Religious Experience* classified conversion, saintliness, and mysticism as personal states.
- **Sigmund Freud** in *Totem and Taboo* and later *The Future of an Illusion* read gods as projections of the father and ritual as compulsion.
- Culture-and-personality work, and later cognitive anthropology of modules and hyperactive agency, also explain belief from mental architecture first.
- **E. B. Tylor's** intellectualist animism is a borderline case: it is a theory of error in the mind, even though Tylor wrote as an anthropologist.

The difference

- Anthropology asks what a symbol does in public life and how a group holds a cosmos.
- Psychology asks what a belief does in a nervous system or a biography.
- Geertz insisted that meaning is public, which is why a wink is not a twitch, and why religion is not exhausted by private emotion.

Flow diagram

Geertz -> Public symbols
Public symbols -> Moods and cosmos
Anthropological -> Durkheim Turner Evans-Pritchard
Psychological -> James Freud cognition
Geertz -> Anthropological

Conclusion

Geertz looked at religion as a cultural system of symbols that make a cosmos feel uniquely real. Anthropological approaches read that public web; psychological approaches read inner states, and the two can meet only after each has kept its unit of study.

Open WRAP page — <https://wrapexams.com/upsc/mains-answers/anthropology-gs-1/2023/how-did-clifford-geertz-look-at-religion-differentiate-between-anthropological-and-psychological-approaches-to-the-study-of-religion/>

Q3(c) · 15 marks

What is mixed-longitudinal method of studying human growth. Discuss its merits and demerits.

Anthropology GS 1 · 2023 · Human Genetics

Revision summary

Cross-sectional study measures different children once.

Longitudinal study remeasures the same children, as in Tanner's work.

Mixed-longitudinal study follows overlapping cohorts and may replace drop-outs.

Merits are cost, speed, and some velocity data.

Demerits are joining error, secular-trend mix, and remaining attrition bias.

Indian school and ICMR work often uses this middle design.

Introduction

Human growth can be measured once, followed in the same children, or studied by a mix of both. The mixed-longitudinal method is that mix, designed to keep the truth of change without the full cost of a lifetime panel.

Body

The three designs

- A **cross-sectional** survey measures different children at each age once, which **Franz Boas** already used to show environment in stature, but it cannot show a single child's velocity.
- A **longitudinal** study remeasures the same children, which **J. M. Tanner** made the gold standard for velocity, age at peak height velocity, and tempo.
- A **mixed-longitudinal** design follows several overlapping cohorts for a few years each, and it may add new children as others leave, so the study covers a wide age span in calendar time shorter than a full birth-to-adult panel.

How mixed-longitudinal work is done

- Cohort A is seen from 5 to 10 years, cohort B from 8 to 14, cohort C from 12 to 18, with overlap so curves can be joined.
- Drop-outs are replaced, which is why the method is common in school, ICMR, and clinic growth programmes that cannot lock a sample for twenty years.
- Distance (size attained) and velocity (rate) can both be estimated, with more error at the joins than in a pure panel.

Merits

- It is cheaper and faster than a complete longitudinal study of one birth cohort to adulthood.
- It captures tempo and seasonal or secular change better than a one-time cross-section.
- Overlap between cohorts lets the analyst check consistency, which a pure cross-section never sees.
- Ethical and practical loss of subjects is easier to repair by adding children than in a sealed panel.

Demerits

- Joining cohorts can hide real differences between groups born in different years, which is a secular-trend confound.
- Velocity estimates are weaker than in a long panel of the same bodies.
- Selective drop-out still biases the remaining sample if the poorest or most migrant children leave.
- Statistical handling is heavier than a simple cross-section, and poor joining produces a false smooth curve.

Use in anthropology

- Population comparisons, nutritional intervention, and secular-change studies in India often use mixed-longitudinal school data because a Tanner-style twenty-year clinic panel is rare.

Flow diagram

Cross-section -> Size only
Longitudinal -> True velocity
Mixed-longitudinal -> Overlapping cohorts
Overlapping cohorts -> Faster than full panel

Conclusion

Mixed-longitudinal growth study follows overlapping cohorts instead of one lifelong sample. It buys velocity and speed at the price of joining error, and it is the practical middle path between a survey and a full panel.

Open WRAP page — <https://wrapexams.com/upsc/mains-answers/anthropology-gs-1/2023/what-is-mixed-longitudinal-method-of-studying-human-growth-discuss-its-merits-and-demerits/>

Q4(a) · 20 marks

Discuss the role of marriage regulations in traditional societies in India for strengthening social solidarity.

Anthropology GS 1 · 2023 · Family

Revision summary

Indian marriage rules combine caste endogamy with gotra and village exogamy.

Karve mapped north-south differences, including Dravidian cross-cousin preference.

Lévi-Strauss treats the rules as alliance that makes society.

Dumont reads endogamy as the reproduction of hierarchy.

Srinivas showed marriage as village politics and feast.

Solidarity is group repair, including unequal hypergamy, not simple equality.

Introduction

Traditional Indian marriage is a set of rules about who may marry whom, and those rules build groups as much as they join spouses. Social solidarity here means the ties of caste, clan, village, and alliance that those rules keep in repair.

Body

The regulatory field

- Caste **endogamy** keeps occupation, ritual rank, and food rules inside a marriage circle, which **Louis Dumont** in *Homo Hierarchicus* treated as the reproduction of hierarchy.
- Clan and **gotra exogamy**, with **sapinda** limits, force a man to find a wife outside the closest patriline, so incest taboo becomes a positive rule of alliance.
- North Indian **village exogamy** and the four-clan rule, mapped by **Irawati Karve** in *Kinship Organization in India*, send women out and create a web of affines across villages.
- South Indian **Dravidian** rules, read by **Thomas Trautmann** and earlier by Karve, prefer cross-cousin marriage, which repeats alliance inside a known set of lineages rather than scattering brides as far as the north.

Solidarity through alliance

- **Claude Lévi-Strauss** argued that the incest taboo turns women into the first exchange, so marriage regulations create society as a system of groups, not as a pile of couples.
- North Indian hypergamy and kanyadana rank wife-givers below wife-takers, which is hierarchical solidarity, not equality, and still binds affines through gift and ritual.
- Repeated affinity, as in many south Indian and some tribal systems, makes mother's brother a structural ally, which **A. C. Mayer** and village ethnography also found in practice.
- **M. N. Srinivas** showed that marriage feasts, factions, and village councils use these kin ties as the everyday staff of solidarity and conflict.

Other Indian patterns

- Muslim khandan and cousin preference, tribal bride-price systems of the middle Indian highlands, and polyandry in parts of the western Himalaya are other regulations, each making a different solidarity of property and labour.
- **Verrier Elwin** and later tribal ethnography recorded capture, service, and bride-price as lawful routes, still regulated, still about group reproduction.

- The joint household and patrilocality after marriage place the new wife under mother-in-law authority, which is domestic solidarity with a clear cost to the incoming woman.

Limits

- Solidarity for the caste or lineage can be exclusion for the Dalit, the widow, and the inter-caste couple.
- **Émile Durkheim's** mechanical solidarity of likeness (endogamy) and organic solidarity of interdependence (alliance, jajmani, gift) both appear; the rules do both jobs.
- Contemporary law, court marriage, and live-in unions weaken some regulations without erasing caste endogamy in practice.

Flow diagram

Marriage rules -> Caste endogamy
Marriage rules -> Gotra village exogamy
Caste endogamy -> Hierarchy Dumont
Gotra village exogamy -> Alliance Levi-Strauss
Alliance Levi-Strauss -> Social solidarity

Conclusion

Marriage regulations in traditional India organise endogamy and exogamy so that caste, clan, and village remain groups. Solidarity is the alliance and hierarchy those rules produce, not a romance of the couple, and it has always had a sharp edge of exclusion.

Open WRAP page — <https://wrapexams.com/upsc/mains-answers/anthropology-gs-1/2023/discuss-the-role-of-marriage-regulations-in-traditional-societies-in-india-for-strengthening-social-solidarity/>

Q4(b) · 15 marks

Discuss various methods of personal identification based on skeletal remains.

Anthropology GS 1 · 2023 · Applications of Anthropology

Revision summary

The biological profile estimates sex, age, stature, and ancestry from bone.

Pelvis and Phenice traits lead for sex; Todd, Suchey-Brooks and Iscan lead for adult age.

Trotter-Gleser and Fully estimate stature.

Teeth, sinuses, and implants individualise.

Krogman standardised the forensic teaching sequence.

DNA and isotopes extend identification when bone and records allow.

Introduction

A skeleton can still be a person for the law if sex, age, stature, ancestry, and unique marks can be read. Forensic anthropology is that reading, from bone first and from DNA when bone is not enough.

Body

Biological profile

- **Sex** is best from the pelvis, using the **Phenice** traits of the pubis, the greater sciatic notch, and then the skull; accuracy falls in children because secondary sex traits are incomplete.
- **Age** uses dental eruption and epiphyseal union in the young, then pubic symphysis methods of **Todd** and **Suchey-Brooks**, sternal rib ends after **Iscan**, and cranial suture closure with wide error in the old.
- **Stature** is estimated from long-bone length with regression formulae such as **Trotter and Gleser**, which must match population; **Fully's** anatomical method uses more of the skeleton when it is complete.
- **Ancestry** from craniofacial metrics is statistical and contested, and it is a forensic lead, not a race essence.

Unique identification

- Dental charting, restorations, and radiographs match a named person when antemortem records exist.
- Frontal sinus outline, surgical implants, and healed fractures are individualising when records or family memory exist.
- Occupational and pathological markers, such as squatting facets or chronic infection, narrow the field but rarely name a person alone.
- **Wilton Krogman's** The Human Skeleton in Forensic Medicine made this profile-plus-unique-mark sequence standard teaching.

Molecular and imaging methods

- Nuclear STR DNA from dense bone or tooth, mitochondrial DNA from degraded remains, and Y- or X-markers for kinship are now ordinary when a reference sample exists.
- Facial approximation from the skull is an investigative aid, not a courtroom photograph of the dead.

- Isotopes of strontium, oxygen, and carbon can speak of diet and childhood geology, which helps unidentified migrants and mass graves.

Indian and practical context

- **Mass disasters, unidentified poor, and human-rights graves use the same sequence:** inventory, profile, unique match, then DNA.
- The method is only as good as the reference collections and the antemortem file.

Flow diagram

Skeleton -> Sex age stature
Skeleton -> Teeth sinus implants
Teeth sinus implants -> Named person
DNA STRs -> Named person

Conclusion

Personal identification from bone starts with sex, age, stature, and unique dental or surgical marks, then DNA. Krogman's forensic sequence still holds, with molecular tests as the last name-tag when records exist.

Open WRAP page — <https://wrapexams.com/upsc/mains-answers/anthropology-gs-1/2023/discuss-various-methods-of-personal-identification-based-on-skeletal-remains/>

Q4(c) · 15 marks

Identify the major Mesolithic sites and describe the typo-technological features with special reference to India.

Anthropology GS 1 · 2023 · Mesolithic

Revision summary

The Indian Mesolithic is a Holocene microlithic hunter-gatherer phase.

Ganga sites of Sharma's school, Bagor under Misra, and Langhnaj under Sankalia are central.

Bhimbetka, Adamgarh, Birbhanpur, and Teri sites widen the map.

Typo-technology is backed blades, lunates, triangles, trapezes, and hafted composites.

Bone tools and grinders complete the kit.

Late Bagor shows copper on a microlithic base.

Introduction

The Indian Mesolithic is the Holocene hunter-gatherer world of microliths between Paleolithic flakes and Neolithic food production. Sites from the Ganga valley to the Thar and the south show a shared typo-technology with regional economies.

Body

Major sites

- **Sarai Nahar Rai, Mahadaha, and Damdama** in the Ganga valley, excavated under **G. R. Sharma** and later teams at Allahabad, yielded burials, bone tools, and microliths beside oxbow lakes.
- **Bagor** in Rajasthan, excavated by **V. N. Misra**, is a dune site with geometric microliths, hearths, and later copper, often cited for incipient animal management.
- **Langhnaj** in Gujarat, associated with **H. D. Sankalia**, produced microliths and burials in a sandy estuarine setting.
- **Adamgarh** and **Bhimbetka** in the Vindhyas show microlithic floors and a painted-shelter sequence after Acheulian use.
- **Birbhanpur** in West Bengal, **Lekhahia** and **Morhana Pahar** in the Vindhyan belt, and the **Teri** dune sites of Tamil Nadu extend the map to east and south.
- **Patne, Andhra** rock shelters, and Sri Lankan Microlithic comparisons sit in the same Holocene hunting world.

Typo-technology

- **The signature is the microlith:** small blades and bladelets in chert, chalcedony, quartz, and agate, often backed.
- Geometric types include lunates, triangles, and trapezes, which were hafted as composite points, barbs, and knives rather than used as tiny hand tools alone.
- Non-geometric microliths and fluted cores continue from an Upper Paleolithic blade habit in some regions, so the Mesolithic is a technological intensification, not a people arriving from nowhere.
- Bone points, grinding stones, and occasional pottery or copper at late sites such as Bagor show a broad-spectrum toolkit beside the stone.

- Hunting of deer and antelope, fishing and fowling in Ganga oxbows, and shell or dune foraging in the south match that toolkit.

Cultural reading

- Burials with ochre and grave goods at Damdama and Mahadaha show social life, not only waste flakes.
- The Mesolithic is the typo-technological bridge to food production, not yet the Neolithic village.

Flow diagram

Indian Mesolithic -> Ganga Damdama Mahadaha

Indian Mesolithic -> Bagor Langhnaj

Indian Mesolithic -> Bhimbetka Adamgarh

Microliths -> Composite hafts

Indian Mesolithic -> Microliths

Conclusion

Major Indian Mesolithic sites include Sarai Nahar Rai, Mahadaha, Damdama, Bagor, Langhnaj, Adamgarh, Bhimbetka, Birbhanpur, and the Teri dunes. Their typo-technology is geometric microliths in composite hafts, with bone, grinders, and later metal or pottery at some late camps.

Open WRAP page — <https://wrapexams.com/upsc/mains-answers/anthropology-gs-1/2023/identify-the-major-mesolithic-sites-and-describe-the-typo-technological-features-with-special-reference-to-india/>

Q5(a) · 10 marks

Polygenic Inheritance

Anthropology GS 1 · 2023 · Mendelian genetics in man-family study, single factor, multifactor, lethal, sub-lethal and polygenic inheritance in man.

Revision summary

Polygenic traits are built by many loci of small effect.

Fisher joined Mendelism to Galton's continuous curves.

Nilsson-Ehle's wheat colour is the classic additive model.

Human stature and skin colour are standard anthropological examples.

GWAS still finds many tiny effects, not a racial master gene.

Introduction

Polygenic inheritance is the passing of a trait that many loci of small effect build together. The result is a curve of people, not a 3:1 garden of peas.

Body

The genetic idea

- **R. A. Fisher** showed that many Mendelian loci plus environment can produce the continuous distributions that **Francis Galton** had measured for stature.
- **Nilsson-Ehle's** wheat-kernel colour is the teaching plant model: add more contributing alleles and the colour darkens by steps that look smooth in a large sample.
- Human stature, skin colour, blood pressure, and many disease risks sit in this architecture, which is why they are also called multifactorial when environment is counted.

Anthropological use

- Skin colour is a polygenic cline with latitude and ultraviolet light, not a three-race switch, which is why **Livingstone** and later geneticists rejected racial typology for this trait.
- Twin and family studies estimate heritability, but a heritability figure is not a gene list and is not destiny across environments.
- Genome-wide association studies now name many loci of tiny effect, which confirms the old polygenic picture without restoring Mendelian race types.

Flow diagram

Many loci -> Quantitative trait
Environment -> Quantitative trait
Quantitative trait -> Height skin colour

Conclusion

Polygenic inheritance is many small loci making a quantitative trait. Anthropology needs it for stature, pigmentation, and complex disease, and it forbids treating those traits as single-gene races.

Open WRAP page —

<https://wrapexams.com/upsc/mains-answers/anthropology-gs-1/2023/polygenic-inheritance/>

Q5(b) · 10 marks

Prehistoric significance of Rakhigarhi

Anthropology GS 1 · 2023 · Principles of Prehistoric Archaeology. Chronology

Revision summary

Rakhigarhi is a very large Harappan site in Haryana on the Ghaggar-Drishadvati belt.

ASI and Deccan College excavations exposed town and cemetery.

Craft and agriculture match the Indus urban economy.

2019 aDNA lacked a Steppe signal in the reported Mature Harappan genome.

The site joins settlement archaeology to biological prehistory.

Introduction

Rakhigarhi in Hisar, Haryana, is among the largest Harappan settlements. Its significance is size, a cemetery, craft, and the aDNA that tied the Indus people to a wider prehistoric map.

Body

Site and culture

- The mound complex on the now-dry **Drishadvati-Ghaggar** belt shows planned streets, brick, drains, and craft debris of the Mature Harappan, excavated in major seasons by **Amarendra Nath** for the ASI and later by **Vasant Shinde** of Deccan College.
- Cemetery work, including RGR-7, gives burial practice and osteology, which most Harappan cities still lack at this scale.
- Beads, copper, and agricultural remains place Rakhigarhi inside the Indus craft and food economy, not as a frontier camp.

Prehistoric significance

- Extent argues that the Harappan world had more than Mohenjo-daro and Harappa as capitals of density.
- **Niraj Rai**, Shinde, and collaborators published aDNA in 2019 showing ancestry related to Iranian farmers and South Asian hunter-gatherers, without a Steppe pastoralist signal in that Mature Harappan individual, which matters for later Indo-Aryan debates.
- The site therefore links archaeology, biological anthropology, and language prehistory without turning one skeleton into a whole invasion story.

Flow diagram

Rakhigarhi -> Mature Harappan city
Rakhigarhi -> Cemetery craft
Rakhigarhi -> aDNA 2019
aDNA 2019 -> Prehistoric population map

Conclusion

Rakhigarhi is prehistoric evidence of a first-rank Harappan city with burials and genome data. Its significance is the Indus as a large, biologically sampled civilisation in the Ghaggar belt, not only as two famous Pakistani mounds.

Open WRAP page —

<https://wrapexams.com/upsc/mains-answers/anthropology-gs-1/2023/prehistoric-significance-of-rakhigarhi/>

WRAP Exams

Q5(c) · 10 marks

Glottochronology

Anthropology GS 1 · 2023 · Linguistic Anthropology.

Revision summary

Glottochronology dates language splits from retained basic vocabulary.

Swadesh lists and an assumed replacement rate are the core.

Hymes helped move the tool into anthropology.

Bergsland and Vogt showed that rates vary.

It remains a rough relatedness clock, not an absolute date.

Introduction

Glottochronology tries to date the split of related languages from the share of retained basic vocabulary. It is a linguistic clock, and anthropologists have used it with more hope than the clock can always keep.

Body

The method

- **Morris Swadesh** built 100- and 200-word lists of supposedly stable meanings such as body parts and pronouns, a method called lexicostatistics when used only to measure relatedness.
- Glottochronology adds a constant rate, often taught as about 14 per cent loss per thousand years, to turn the shared percentage into a date of divergence.
- **Dell Hymes** and others brought the tool into anthropology as a companion to archaeology when no inscriptions exist.

Limits

- **Knut Bergsland** and **Hans Vogt** showed that real rates are not constant, using cases such as Icelandic.
- Borrowing, taboo replacement, and poorly chosen lists break the clock, which **Lyle Campbell** and historical linguists still stress.
- The method can still rank closeness of dialects; it should not be treated as a radiocarbon date for a people.

Flow diagram

Swadesh list -> Shared basic words
Shared basic words -> Date of split
Rate not constant -> Date of split

Conclusion

Glottochronology is Swadesh's dated lexicostatistics. It is a heuristic for language split, not a precise prehistoric calendar.

Open WRAP page — <https://wrapexams.com/upsc/mains-answers/anthropology-gs-1/2023/glottochronology/>

Q5(d) · 10 marks

Menopausal symptoms

Anthropology GS 1 · 2023 · Relevance of menarche, menopause and other bioevents to fertility. Fertility patterns and differentials.

Revision summary

Menopause ends cycles after follicular exhaustion.

Core symptoms are flushes, night sweats, urogenital atrophy, and bone loss.

Mood and sleep complaints are common in clinics.

Lock showed that Japanese aging did not copy American flush medicine.

Symptoms are biology read through culture and the older woman's social place.

Introduction

Menopause is the permanent end of menstruation after ovarian follicles are exhausted. Symptoms are biological, but culture decides which of them count as an illness.

Body

Common symptoms

- Vasomotor symptoms include hot flushes and night sweats, tied to oestrogen decline and thermoregulatory change.
- Urogenital change, vaginal dryness, and urinary complaints follow mucosal atrophy.
- Bone loss raises osteoporosis risk, and sleep, mood, and sexual difficulty are often reported in clinics.
- Timing is commonly around 45-55 years, with earlier menopause after some surgeries or in some undernourished populations.

Biocultural reading

- **Margaret Lock** in *Encounters with Aging* showed that Japanese *konenki* did not match North American hot-flush medicine, so symptom lists are not a universal script.
- Indian mid-life ethnography likewise finds joint pain, weakness, and social role change beside, or instead of, flush talk.
- Hormone therapy, calcium, and exercise are biomedical answers; anthropology adds household status of the older woman, as **Nancy Scheper-Hughes** and medical anthropology would insist for any embodied change.

Flow diagram

Oestrogen decline -> Vasomotor
Oestrogen decline -> Bone urogenital
Culture -> Which symptoms are illness

Conclusion

Menopausal symptoms include flushes, urogenital change, bone loss, and mood or sleep disturbance. Their meaning and intensity are biocultural, as Lock's Japan comparison still teaches.

Open WRAP page —

<https://wrapexams.com/upsc/mains-answers/anthropology-gs-1/2023/menopausal-symptoms/>

WRAP Exams

Q5(e) · 10 marks

William Ogburn and Cultural lag.

Anthropology GS 1 · 2023 · The Nature of Culture

Revision summary

Ogburn's *Social Change* (1922) distinguished material and non-material culture.

Cultural lag is the slower movement of law and morals behind invention.

The concept travelled from sociology into culture-contact and applied anthropology.

It fits new technology before new ethics, including in development settings.

It fails if meaning is treated as a mere lagging part.

Introduction

William F. Ogburn argued that the parts of culture do not change at one speed. Cultural lag is the delay of non-material rules behind material invention.

Body

Ogburn's claim

- In *Social Change* (1922) **William F. Ogburn** split culture into material objects and the non-material field of law, family, and belief.
- Material culture, especially technology, often moves first; family ethics, property law, and ritual catch up later, and that gap is **cultural lag**.
- His examples included industry, the automobile, and delayed legal and moral adjustment, a sociology that anthropologists borrowed for culture-contact studies.

Use and criticism

- Lag helps explain why IVF, the internet, or a dam can exist before kinship and compensation rules are ready, including in Indian tribal displacement.
- **Leslie White** and other evolutionists liked the material lead; **Franz Boas** and later interpretive writers warned that meaning is not a slow caboose on a technological engine.
- Lag can sound too mechanical if religion and law are treated as mere leftovers, so the term is a diagnostic, not a whole theory of culture.

Flow diagram

Material technology -> Cultural lag
Law family belief -> Cultural lag
Cultural lag -> Adjustment or strain

Conclusion

Ogburn named cultural lag as the delay of norms behind technology. The idea is still useful for law and kinship after new machines, if it is not turned into a one-way material destiny.

Open WRAP page —

<https://wrapexams.com/upsc/mains-answers/anthropology-gs-1/2023/william-ogburn-and-cultural-lag/>

Q6(a) · 20 marks

Critically discuss the controversies related to fieldwork of Bronislaw-Malinowski and Margaret Mead.

Anthropology GS 1 · 2023 · Functionalism (Malinowski)

Revision summary

Malinowski's Trobriand fieldwork founded participant observation and the kula monograph.

The 1967 diaries exposed racist and sexual private speech, prompting reflexivity, not a simple cancellation of Argonauts.

Mead's Samoa argued that adolescence is culturally shaped.

Freeman's 1983 attack overstated hoax and ignored time and sample.

Shankman and others restored a more careful Mead.

Both controversies teach positioned method, not the death of ethnography.

Introduction

Malinowski and Mead made fieldwork the public face of anthropology, and both were later put on trial. The controversies are about honesty, power, and whether an ethnography can be trusted, not about deleting the Trobriands or Samoa from the syllabus.

Body

Malinowski: the Trobriand achievement

- From 1915-18 **Bronislaw Malinowski** lived in the Trobriand Islands and wrote *Argonauts of the Western Pacific* (1922), which made participant observation, the kula, and the imponderabilia of daily life the method of the discipline.
- *Crime and Custom*, *The Sexual Life of Savages*, and coral-garden functionalism showed a working society rather than a list of survivals.
- That achievement is the baseline against which the later files must be read.

Malinowski: the diary controversy

- His private diaries, published in 1967 with a preface by **Raymond Firth**, used racist abuse, sexual frustration, and contempt for Trobrianders beside the published empathy.
- Critics said the functionalist whole was a literary mask; defenders said a diary is not the ethnography, and that kula, canoe magic, and matriliney still stand as public facts.
- **The lasting critical yield is reflexivity:** the ethnographer's body, race, and desire are part of the field, as later writers from **James Clifford** to feminist ethnography insisted.
- Colonial permit and a white man's freedom of movement also structured the famous tent, which **Talal Asad** and colonial critiques of anthropology placed on the table.

Mead: Samoa

- **Margaret Mead's** *Coming of Age in Samoa* (1928), under **Franz Boas**, argued that Samoan adolescence was easier than the American storm-and-stress, so culture, not biology, shaped youth and sex.
- The book became a public charter of cultural relativism and of Boasian anti-racism.

Mead: the Freeman controversy

- **Derek Freeman** in 1983 charged that Mead was hoaxed by joking girls, that Samoa was puritan and violent, and that she had found what Boas wanted.
- Later assessments, including **Paul Shankman**, showed that Freeman over-claimed a hoax, mixed decades, and ignored that Mead's sample was a particular place and time.
- **The controversy still teaches method:** short fieldwork, language skill, the sex of the ethnographer, and the danger of one-island laws of human nature.

What to keep

- Malinowski remains the charter of long residence and synchronic holism; the diary remains a warning about the hidden transcript of the fieldworker.
- Mead remains a charter of culture against biological fatalism; Samoa remains a warning against over-generalising youth from one study.
- Neither controversy proves that ethnography is fiction. Both prove that ethnography is a positioned, revisable account.

Flow diagram

Malinowski -> Kula holism
Malinowski -> Diary 1967
Mead -> Samoa 1928
Mead -> Freeman 1983
Diary 1967 -> Reflexivity
Freeman 1983 -> Reflexivity

Conclusion

Malinowski's tent and Mead's Samoa made modern fieldwork, and the diary and Freeman files made its ethics public. Keep the kula and the culture argument, and keep the critique of race, sex, and over-claim.

Open WRAP page — <https://wrapexams.com/upsc/mains-answers/anthropology-gs-1/2023/critically-discuss-the-controversies-related-to-fieldwork-of-bronislaw-malinowski-and-margaret-mead/>

Q6(b) · 15 marks

Discuss the impact of globalization on the economic systems of indigenous communities.

Anthropology GS 1 · 2023 · Economic Organization

Revision summary

Wolf already placed local peoples inside world markets.

Globalization intensifies land commodification, wage labour, and branded culture.

Niyamgiri and dam displacement are Indian cases of resource enclosure.

Remittances and tourism can feed and hollow the same household.

New brokers create internal inequality.

Friction, law, and cooperatives are the counter-moves, not a return to a closed isolate.

Introduction

Indigenous economies were already inside colonial markets, as **Eric Wolf** showed. Globalization intensifies that enclosure through price, land, media, and law, and it does not have one single effect.

Body

What is hit

- Subsistence mixes of hunting, shifting cultivation, pastoralism, and craft meet cash crops, wage labour, and packaged food, which **Marshall Sahlins's** domestic mode of production no longer describes as a closed circuit.
- Land and forest become commodities through mines, dams, plantations, and conservation fences, so tenure is the first economic fact, not only income.

Typical impacts

- **Dispossession:** Dongria Kondh resistance at **Niyamgiri**, Narmada displacement ethnography, and Amazon oil frontiers show that global demand for bauxite, electricity, and crude rewrites local livelihood.
- **Labour and cash:** Gulf and city migration from highland and island communities sends remittances that both feed households and empty fields, a pattern **Arjun Appadurai** would read as ethnoscapings of labour.
- **Commoditised culture:** tourism, fair-trade coffee, and patented seed can raise cash while stripping ritual control of knowledge, as in many Andean and north-east Indian craft markets.
- **New inequality:** brokers, contractors, and educated youth capture rents; elders and women who held common resources often lose.
- **Health and food:** market starch and alcohol replace diverse forest diets, which nutritional anthropology records as a biological cost of the same economic shift.

Not only loss

- Indigenous firms, cooperatives, and legal victories such as community forest rights can use global courts and NGOs, which **Anna Tsing** would call friction rather than a steamroller.
- Some pastoralists and fishers specialise for urban markets and stay on the land under new terms.

How to write the impact

- **Name the local system first:** jhum, herd, reef, or forest.
- **Then name the global chain:** metal, tourist, carbon, or garment.
- Then say who captures the cash.

Flow diagram

Global markets -> Land mines dams

Global markets -> Wages remittances

Indigenous economy -> Land mines dams

Indigenous economy -> Wages remittances

Land mines dams -> Unequal outcomes

Conclusion

Globalization pulls indigenous economies into longer commodity chains and weaker tenure. The impact is dispossession and cash together, and the anthropological task is to show which households gain and which commons fail.

Open WRAP page — <https://wrapexams.com/upsc/mains-answers/anthropology-gs-1/2023/discuss-the-impact-of-globalization-on-the-economic-systems-of-indigenous-communities/>

Q6(c) · 15 marks

Describe the practical applications of DNA technology in the current scenario.

Anthropology GS 1 · 2023 · Applications of Anthropology

Revision summary

Jeffreys's DNA fingerprinting and STR databases serve courts and disaster victim identification.

PCR is the workhorse of pathogen testing, including COVID-19.

Medical uses include screening, pharmacogenomics, and early gene editing.

Pääbo's aDNA methods serve prehistory, including Indian Harappan genomes.

GM crops and wildlife barcoding are agrarian and forensic ecological uses.

Consent and over-reading ancestry as race remain anthropological limits.

Introduction

DNA technology reads, copies, and sometimes edits genetic material. Its current practical uses run from courts and clinics to farms, ancestry, and pandemic tests.

Body

Identification and kinship

- **Alec Jeffreys** introduced DNA fingerprinting in 1984; STR profiles now identify suspects, exonerate the wrongfully accused, and match disaster victims when a reference exists.
- Paternity and immigration kinship tests use the same markers, which forensic anthropology now pairs with bone profiles.
- Databases such as national crime indexes raise liberty questions that anthropology of the state must notice.

Medicine and public health

- PCR, associated with **Kary Mullis**, underpins pathogen tests, including the COVID-19 diagnostic wave.
- Carrier screening, prenatal tests, BRCA and other risk panels, and pharmacogenomics tailor drugs to genotype.
- Gene therapy and **CRISPR** editing, after **Doudna** and **Charpentier**, are entering clinics for a few monogenic diseases, with ethics still contested.

Ancestry, ancient DNA, and population study

- **Svante Pääbo's** ancient DNA methods reconstruct archaic admixture and prehistoric movement, as in Neanderthal genomes and South Asian aDNA from sites such as Rakhigarhi.
- Commercial ancestry tests are popular and often over-interpreted as race.

Food, environment, and industry

- GM crops, DNA barcoding of wildlife for poaching cases, and GMO labelling disputes are applied molecular biology in the agrarian and conservation field.
- Recombinant insulin and vaccines are older industrial applications that still matter.

Anthropological caution

- DNA can name a body and still not name a culture.
- Consent, caste politics of sampling, and the return of results to indigenous groups are part of current practice, not extras.

Flow diagram

DNA technology -> Forensic kinship

DNA technology -> Medicine PCR CRISPR

DNA technology -> Ancient DNA technology ancestry

DNA technology -> GM barcoding

Conclusion

DNA technology now identifies persons, diagnoses infection and risk, edits a few diseases, and reconstructs prehistory. The current scenario is laboratory power plus consent and interpretation, not a code that replaces society.

Open WRAP page — <https://wrapexams.com/upsc/mains-answers/anthropology-gs-1/2023/describe-the-practical-applications-of-dna-technology-in-the-current-scenario/>

Q7(a) · 20 marks

Describe various methods of qualitative data analysis. Highlight some popular computer softwares used in qualitative analysis.

Anthropology GS 1 · 2023 · Analysis, interpretation and presentation of data.

Revision summary

Qualitative analysis codes and compares meaning in notes and talk.

Thematic analysis, grounded theory, narrative, discourse, and framework analysis are the main named methods.

The Manchester extended case tests theory in a crisis.

CAQDAS includes NVivo, ATLAS.ti, MAXQDA, and Dedoose.

Software retrieves; it does not interpret.

Geertz still has to be written after the nodes.

Introduction

Qualitative analysis turns field notes, interviews, and images into an argued account. The methods are ways of coding and comparing meaning, and software now holds the corpus without doing the thinking.

Body

From data to account

- The corpus is usually transcripts, diaries, photographs, and documents produced in ethnography or in mixed methods.
- **Analysis is iterative:** read, code, memo, compare, and write, as **Barney Glaser** and **Anselm Strauss** set out for grounded theory.

Main methods

- **Thematic analysis**, taught widely after **Virginia Braun** and **Victoria Clarke**, groups repeating patterns of meaning across a set of interviews.
- **Content analysis** counts categories in texts when the question needs frequencies as well as quotes, a bridge toward mixed methods.
- **Grounded theory** builds categories from open, axial, and selective coding until a mid-level theory of a process, such as stigma or migration, stabilises.
- **Narrative analysis** follows plots, voices, and life stories, used in medical and refugee ethnography.
- **Discourse analysis**, after **Michel Foucault** and later linguistic anthropology, asks how talk makes power, caste, or gender, not only what a person reports.
- **Conversation analysis** looks at turn-taking and repair in recorded talk, a stricter cousin used in some institutional studies.
- **Framework analysis** (Ritchie and Spencer) uses a case-by-theme matrix, common in applied policy anthropology.
- **Analytic induction** and the **extended case method** of the Manchester School, associated with **Max Gluckman** and later **Michael Burawoy**, test a theory against a crisis in the field.

Computer software

- **NVivo** is widely used to code interview trees, query text, and link memos.
- **ATLAS.ti** supports coding of text, image, and video and is common in European and development research.
- **MAXQDA** mixes qualitative codes with simple quantitative overlays, useful in mixed-method theses.
- **Dedoose** is a web-based mixed-method option for teams.
- Open tools such as **RQDA** (older R package), **TAMS**, and **Taguette** exist for students without a licence.
- **CAQDAS** is the family name: Computer-Assisted Qualitative Data Analysis Software.

What software does not do

- It stores, retrieves, and shows co-occurrence. It does not know a culture.
- **Clifford Geertz's** thick description still has to be written by the ethnographer after the nodes are coded.
- Poor interviews remain poor after a beautiful NVivo map.

Flow diagram

Field corpus -> Coding memos
Coding memos -> Thematic grounded discourse
Coding memos -> NVivo ATLAS MAXQDA
Thematic grounded discourse -> Written argument

Conclusion

Qualitative methods include thematic, grounded, narrative, discourse, and extended-case analysis. NVivo, ATLAS.ti, MAXQDA, and Dedoose are popular CAQDAS tools, and they assist retrieval rather than replace ethnographic judgement.

Open WRAP page — <https://wrapexams.com/upsc/mains-answers/anthropology-gs-1/2023/describe-various-methods-of-qualitative-data-analysis-highlight-some-popular-computer-softwares-used-in-qualitative-analysis/>

Q7(b) · 15 marks

What assumptions must be met for a population to be in genetic equilibrium. Explain the importance of genetic equilibrium.

Anthropology GS 1 · 2023 · Concept of genetic polymorphism and selection, Mendelian population, Hardy-Weinberg law

Revision summary

Hardy and Weinberg showed that p^2 , $2pq$, and q^2 persist under stated assumptions.

Assumptions are large size, random mating, and no mutation, migration, or selection.

Equilibrium is the null against which evolution is inferred.

Forensics and counselling use it to get genotype frequencies.

Sickle-cell selection and isolate inbreeding are standard anthropological departures.

Real populations only approximate the model.

Introduction

Genetic equilibrium is the Hardy-Weinberg state in which allele and genotype frequencies stay stable across generations. It is a null model, and it holds only when a short list of assumptions is met.

Body

The Hardy-Weinberg statement

- For two alleles, p and q , random mating produces genotypes p^2 , $2pq$, and q^2 , a relation named for **G. H. Hardy** and **Wilhelm Weinberg** in 1908.
- If the assumptions hold, those frequencies recur, and allele frequencies do not drift by the mating system itself.

Assumptions

- The population is indefinitely large, so chance **genetic drift** is negligible.
- Mating is random with respect to the locus, with no inbreeding or assortative mating that would raise homozygotes.
- There is no **mutation** at rates that would shift p and q in the study window.
- There is no **migration** that imports a different allele frequency.
- There is no **selection** for or against genotypes at that locus.
- Generations are discrete in the simple teaching model, and the locus is autosomal in the basic two-allele form; sex-linked and multiple-allele extensions need extra algebra.

Importance

- **Equilibrium is the null hypothesis of population genetics:** departure diagnoses drift, inbreeding, migration, or selection, which is why **R. C. Lewontin** and anthropological genetics use it on blood groups and now on SNPs.
- Forensic match probabilities and genetic counselling use Hardy-Weinberg expectations to translate allele frequencies into genotype frequencies.
- **Sickle-cell** heterozygote advantage in malaria belts is taught as a selection break of equilibrium, not as a failure of Mendelism.

- Inbreeding in small tribal isolates raises homozygosity above $2pq$ expectations, which is an anthropological use of the same test.
- Conservation genetics of small populations uses the opposite of the infinite-population assumption to explain loss of diversity.

What it is not

- No real human population meets every assumption forever.
- The model is still necessary as a measuring stick.

Flow diagram

Large random mating -> Hardy-Weinberg
No mutation migration selection -> Hardy-Weinberg
Hardy-Weinberg -> Null model
Departure -> Drift inbreeding selection

Conclusion

Hardy-Weinberg equilibrium needs a large, randomly mating population without mutation, migration, or selection at the locus. Its importance is as a null model for detecting evolutionary forces and for translating allele frequencies into expected genotypes.

Open WRAP page — <https://wrapexams.com/upsc/mains-answers/anthropology-gs-1/2023/what-assumptions-must-be-met-for-a-population-to-be-in-genetic-equilibrium-explain-the-importance-of-genetic-equilibrium/>

Q7(c) · 15 marks

Discuss political and methodological aspects of national character studies. Elucidate the contemporary relevance of such studies.

Anthropology GS 1 · 2023 · Economic Organization

Revision summary

National character work grew from culture-and-personality, especially Benedict on Japan.

It was politically funded as wartime culture-at-a-distance.

Methods were life history, projective tests, film, and émigré interview.

Faults are stereotyping, sample bias, and the ecological fallacy.

Geertz moved the field from private character to public meaning.

Today the genre survives in branding and populism; anthropology uses it as a caution.

Introduction

National character studies tried to describe a people's typical personality as culture written into character. They were wartime political tools as much as methods, which is why their later reputation is mixed and still usable with care.

Body

What the studies were

- Culture-and-personality anthropology, from **Ruth Benedict's** *Patterns of Culture* to *The Chrysanthemum and the Sword* on Japan, treated a nation as if it had a modal personality.
- **Margaret Mead, Gregory Bateson, Geoffrey Gorer**, and the Columbia seminar on contemporary cultures wrote wartime and Cold War portraits of America, Japan, and Russia, often at a distance.

Political aspects

- The United States government funded culture-at-a-distance work to know enemies and allies, so the genre is an applied anthropology of the state.
- Benedict's Japan book influenced occupation policy talk about the Emperor and guilt versus shame, which is political consequence, not only interpretation.
- The same style can stereotype a people as childish, authoritarian, or peaceful, which feeds propaganda as easily as understanding.
- Post-colonial critics asked whose nation was being characterised when class, caste, and region were flattened.

Methodological aspects

- Methods included life histories, Rorschach and TAT tests, films, literature, and interviews with émigrés, which **Abram Kardiner** and **Cora Du Bois** also used for modal personality.
- **Geertz** later rejected the idea that culture is a private personality writ large; meaning is public.
- Sample bias, wartime hatred, and the ecological fallacy of moving from a few protocols to a hundred million people are the core methodological faults.

- **John Whiting's** cross-cultural child-training work was a more systematic cousin, still not a passport to a national soul.

Contemporary relevance

- Soft power, branding, and populist talk of "the people" still use national character as common sense; anthropology's job is to unpick that.
- Organisational culture studies and **Hofstede's** dimensions are distant bureaucratic heirs and share the over-generalisation risk.
- Psychological anthropology still studies emotion, child-rearing, and personhood, but in named communities, not as one India or one Japan.
- Security, diplomacy, and area studies still want cultural literacy; the ethical lesson of Benedict and Mead is to supply it without a single national psyche.
- In India, claims about a Hindu psyche or a Muslim psyche repeat the old genre and should be refused on the same methodological grounds.

Flow diagram

National character -> Benedict Mead Gorer
National character -> Wartime policy
National character -> Modal personality tests
Modal personality tests -> Stereotype risk
Wartime policy -> Stereotype risk

Conclusion

National character studies were a political method of knowing nations through modal personality, strongest in Benedict and the wartime seminars. They remain relevant as a warning and as a demand for cultural literacy without a single national soul.

Open WRAP page — <https://wrapexams.com/upsc/mains-answers/anthropology-gs-1/2023/discuss-political-and-methodological-aspects-of-national-character-studies-elucidate-the-contemporary-relevance-of-such-studies/>

Q8(a) · 20 marks

Critically examine Arjun Appadurai's conceptualization of the global cultural economy.

Anthropology GS 1 · 2023 · The Nature of Culture

Revision summary

Appadurai models globalisation as five disjunctive scapes, not as homogenisation.

Ethno-, media-, techno-, finance-, and ideoscapes move at different speeds.

Imagined worlds extend Anderson's imagined communities.

Deterritorialisation is the social condition of that map.

The model fits migrants, media, and remittances.

- **Critique:** thin production, weak borders, and the immobile poor must be added.

Introduction

Arjun Appadurai pictured the global cultural economy as irregular flows, not as a single Western culture covering the earth. The five scapes and their disjunctures are the model, and the critique is what the model underplays.

Body

The model

- In **Disjuncture and Difference in the Global Cultural Economy** and then *Modernity at Large*, **Arjun Appadurai** argued that globalisation is not cultural homogenisation.
- He named five dimensions of global flow: **ethnoscapes** of tourists, migrants, and exiles; **mediascapes** of images and news; **technoscapes** of machines and software; **financescapes** of capital; and **ideoscapes** of state and opposition ideologies such as freedom and rights.
- These scapes move at different speeds, so they are disjunctive: capital can arrive without people, images without investment, and migrants without rights.
- **Imagined worlds**, extending **Benedict Anderson's** imagined communities, are the social facts people inhabit when they live in more than one scape at once.
- **Deterritorialisation is the condition of that life: group, money, and sacred geography no longer sit inside one village fence, a point that also meets George Marcus's** multi-sited ethnography.

What the model does well

- It fits Gulf Malayali labour, satellite television, remittances, and Hindutva or human-rights talk as one field, not as separate chapters.
- It refuses the old isolate of **Malinowski's** island as the only unit of culture.
- It keeps imagination as a social practice, which is why film, cricket, and WhatsApp rumours belong in political economy.

Criticisms

- Class, factory, and agrarian production are thinner than in **Wolf** or **Sidney Mintz**; scapes can sound like circulation without a shop floor.
- The state is present in ideoscapes but can look weaker than visas, camps, and border police actually are.

- Five lists invite mechanical answers that tick scapes without showing a disjuncture in one case.
- Some critics say Appadurai over-credits mobility and under-credits people who cannot move, including many indigenous communities locked by mines rather than by airports.
- Gender and caste in India need more than a flow diagram; the household still rations who migrates.

Critical use in an answer

- Keep the five scapes as a map of disjuncture.
- Ground them in one chain, such as a Kerala-Gulf ethnoscape plus a financescape of remittances plus a mediascape of telephone serials.
- Add production, border, and inequality so the conceptualisation does not float.

Flow diagram

Ethnoscape -> Disjuncture
Mediascape -> Disjuncture
Technoscape -> Disjuncture
Financescape -> Disjuncture
Ideoscape -> Disjuncture
Disjuncture -> Imagined worlds

Conclusion

Appadurai's global cultural economy is a theory of disjunctive scapes and imagined worlds, not of one McWorld. It remains the best teaching map of cultural globalisation if class, border, and immobility are written back in.

Open WRAP page — <https://wrapexams.com/upsc/mains-answers/anthropology-gs-1/2023/critically-examine-arj-un-appadurais-conceptualization-of-the-global-cultural-economy/>

Q8(b) · 15 marks

Describe the causes of structural abnormalities of chromosomes with suitable examples.

Anthropology GS 1 · 2023 · Numerical and structural aberrations (disorders).

Revision summary

Structural abnormalities rearrange chromosome parts after breakage or unequal crossing-over.

Types are deletion, duplication, inversion, translocation, ring, and isochromosome.

Cri-du-chat is 5p deletion; 22q11 is a common microdeletion.

Philadelphia t(9;22) is a somatic translocation in CML.

Robertsonian 14;21 can cause translocation Down syndrome.

Balanced parental carriers explain some recurrent unbalanced offspring.

Introduction

Structural chromosomal abnormalities are changes in the shape and arrangement of chromosomes, not in the simple count of 46. They arise when breakage and repair go wrong in meiosis or mitosis, and the clinical picture depends on how much DNA is lost, gained, or moved.

Body

Causes at the chromosome

- A **break** in the DNA-protein chromosome, from errors of recombination, radiation, some chemicals, or fragile sites, is the starting event.
- **Repair** may join the wrong ends, producing deletions, duplications, inversions, translocations, rings, or isochromosomes.
- Unequal crossing-over between repeated sequences is a common meiotic cause of deletion and duplication.
- **Robertsonian** fusion joins two acrocentric long arms, which is a structural change that also alters count.
- Parental balanced rearrangements can become unbalanced gametes, which is why family karyotypes matter in counselling.

Main types with examples

- **Deletion:** loss of a segment. **Cri-du-chat** is a 5p deletion with a characteristic cry and developmental delay. **22q11** deletion (DiGeorge / velocardiofacial) is a common microdeletion with heart and immune findings.
- **Duplication:** extra segment, sometimes the partner of a deletion from unequal crossing-over. Charcot-Marie-Tooth type 1A is a teaching duplication of a myelin gene region on chromosome 17.
- **Inversion:** a reversed segment. Pericentric inversions can be balanced in a parent and still produce unbalanced recombinant children.
- **Translocation:** exchange between chromosomes. The **Philadelphia chromosome** t(9;22) fuses BCR-ABL in chronic myeloid leukaemia, a somatic structural change. Reciprocal translocations in the germline can be balanced in a parent and unbalanced in a child.

- **Robertsonian translocation** between 14 and 21 is a cause of translocation **Down syndrome**, distinct from free trisomy 21, which is numerical.
- **Ring chromosome** forms when two ends of one chromosome fuse after terminal breaks.
- **Isochromosome** is a mirror chromosome with two identical arms, seen in some **Turner** variants involving X.

Anthropological and clinical note

- These are cytogenetic facts used in medical anthropology of disability, stigma, and prenatal testing, not racial traits.
- Mosaicism can blunt or patch the phenotype when the rearrangement is post-zygotic.

Flow diagram

Chromosome break -> Deletion
Chromosome break -> Duplication
Chromosome break -> Inversion
Chromosome break -> Translocation
Translocation -> Philadelphia CML
Deletion -> Cri-du-chat 5p

Conclusion

Structural abnormalities come from breakage, unequal recombination, and mis-repair, yielding deletions, duplications, inversions, translocations, rings, and isochromosomes. Cri-du-chat, 22q11, Philadelphia t(9;22), and 14;21 Robertsonian Down syndrome are the standard examples.

Open WRAP page — <https://wrapexams.com/upsc/mains-answers/anthropology-gs-1/2023/describe-the-causes-of-structural-abnormalities-of-chromosomes-with-suitable-examples/>

Q8(c) · 15 marks

Critically discuss A.L. Kroeber's contribution to kinship studies.

Anthropology GS 1 · 2023 · Kinship

Revision summary

Kroeber's 1909 paper treated classificatory kinship as linguistic-cultural, not as a primitive stage.

Eight principles generate terminological pattern.

Kinship sits in the superorganic, not in raw biology or psychology.

California ethnography supplied cases inside Boasian culture history.

Lévi-Strauss wanted alliance, Schneider wanted to question the genealogical grid.

Kroeber remains the terms-as-culture charter, not the whole of kinship theory.

Introduction

A. L. Kroeber treated kinship as culture, especially as a language of terms, not as a biological tree that explains itself. His contribution is that shift, and the critique is what a terms-first method can miss.

Body

Kinship as culture

- Against a simple **Lewis Henry Morgan** reading of classificatory systems as fossil stages, **A. L. Kroeber** in his 1909 paper on classificatory systems of relationship argued that kin terms are linguistic and cultural classifications.
- Eight principles, including generation, affinity, collaterality, sex of speaker, and relative age, could generate the pattern of a terminology without a unilinear social stage.
- Kinship therefore belongs with the **superorganic** of culture, the same move Kroeber made against reducing culture to individual psychology.

Ethnographic and comparative work

- California ethnography, including **Yurok** and other peoples with **R. H. Lowie** in the wider Boasian set, supplied term lists and marriage practice for a historical-particularist file rather than a world stage.
- Kroeber's wider Anthropology treated kinship beside art, dress, and language as items of culture history, including diffusion, which later alliance theory would find too shallow.
- He helped make the **kinship schedule** and the comparison of terminologies a professional tool of American anthropology, beside **W. H. R. Rivers's** genealogical method from the British side.

Critical limits

- **Claude Lévi-Strauss** and later alliance theory said that terms without marriage rules and exchange miss the social structure that the terms serve.
- **David Schneider** later said that the whole biological grid of kin types was an American folk model; Kroeber had culturalised terms but still used genealogical boxes.
- Descent-group politics, property, and gender are thinner in a principles-of-terminology paper than in **Meyer Fortes** or **Evans-Pritchard**.
- Indian joint-family and caste hypergamy need Dumont and Karve as well as Kroeber's eight principles.

What still stands

- The refusal to treat classificatory kinship as primitive error still stands.
- The idea that terminology is a cultural logic, not a poor biology, still organises the kinship chapter.
- A critical answer therefore keeps Kroeber as the Boasian who made terms cultural, then adds alliance, practice, and critique of the genealogical grid.

Flow diagram

Kroeber -> Kin terms as culture

Kin terms as culture -> Eight principles

Morgan stages -> Rejected

Levi-Strauss Schneider -> Critique of terms-only

Conclusion

Kroeber's contribution is to treat kinship terminologies as cultural classifications generated by a few principles, not as Morganic fossils. The limit is a terms-first view that underplays alliance, property, and the folk biology still sitting inside the genealogical chart.

Open WRAP page — <https://wrapexams.com/upsc/mains-answers/anthropology-gs-1/2023/critically-discuss-a-l-kroebers-contribution-to-kinship-studies/>

Compiled answer key

Last pages of this pack. Each question links to the WRAP model answer on wrapexams.com.

ask@wrapexams.com · wrapexams.com

Q1(a) 10 marks	Q1(b) 10 marks	Q1(c) 10 marks	Q1(d) 10 marks
Q1(e) 10 marks	Q2(a) 20 marks	Q2(b) 15 marks	Q2(c) 15 marks
Q3(a) 20 marks	Q3(b) 15 marks	Q3(c) 15 marks	Q4(a) 20 marks
Q4(b) 15 marks	Q4(c) 15 marks	Q5(a) 10 marks	Q5(b) 10 marks
Q5(c) 10 marks	Q5(d) 10 marks	Q5(e) 10 marks	Q6(a) 20 marks
Q6(b) 15 marks	Q6(c) 15 marks	Q7(a) 20 marks	Q7(b) 15 marks
Q7(c) 15 marks	Q8(a) 20 marks	Q8(b) 15 marks	Q8(c) 15 marks

Question-wise key

Q1(a) · 10 marks Solution

Q1(b) · 10 marks Solution

Q1(c) · 10 marks Solution

Q1(d) · 10 marks Solution

Q1(e) · 10 marks Solution

Q2(a) · 20 marks Solution

Q2(b) · 15 marks Solution

Q2(c) · 15 marks Solution

Q3(a) · 20 marks Solution

Q3(b) · 15 marks Solution

Q3(c) · 15 marks Solution

Q4(a) · 20 marks Solution

Q4(b) · 15 marks Solution

Q4(c) · 15 marks Solution

Q5(a) · 10 marks Solution

Q5(b) · 10 marks Solution

Q5(c) · 10 marks Solution

Q5(d) · 10 marks Solution

Q5(e) · 10 marks Solution

Q6(a) · 20 marks Solution

Q6(b) · 15 marks Solution

Q6(c) · 15 marks Solution

Q7(a) · 20 marks Solution

Q7(b) · 15 marks Solution

Q7(c) · 15 marks Solution

Q8(a) · 20 marks Solution

Q8(b) · 15 marks Solution

Q8(c) · 15 marks Solution

WRAP Exams · Write. Read. Analyse. Practice. · <https://wrapexams.com/upsc/mains/anthropology/gs-1/2023/> ·
ask@wrapexams.com · wrapexams.com

WRAP Exams