ANTHROPOLOGY NEWS DIARY

(AND)

11.06.2021

FOR UPSC CSE MAINS

This series provides compilation of daily CURRENT AFFAIRS of Anthropology.

It is aimed at addressing the requirement of aspirants to add contemporary aspects of the subject to the answers.

It also helps in understanding the trends of anthropology across India and the world.

NOTE: Please attempt the questions given at the end of the document and can upload on the telegram channel: Sosin for Anthropology Q&A, for peer review.
INDEX

A. BIOLOGICAL ANTHROPOLOGY

1. Chromosome mass ........................................................................................................... 03
2. Neanderthal Footprint ....................................................................................................... 03
3. New Covid Variant discovered from Genome Sequencing ........................................... 04

B. LANGUAGES & PERSONALITIES

1. Birsa Munda ....................................................................................................................... 05
2. Taiwan tribes & disappearing languages ............................................................................. 06

UPSC ANTHROPOLOGY PREVIOUS QUESTIONS ....................................................................... 07

PRACTICE QUESTIONS FOR PEER REVIEW ........................................................................... 07

Note - For convenience, the respective reference links have been dropped at the end of every topic.
A. BIOLOGICAL ANTHROPOLOGY

1. Chromosome Mass

Context:
Scientists puzzled by 'unexplained excess mass' lurking in human chromosomes

Highlights:

● Each human cell normally contains 23 pairs of chromosomes. Within each chromosome is one DNA molecule and a plethora of proteins that serve a variety of functions, such as compressing your 6.5-foot-long (2 meters) strands of DNA into teensy bundles small enough to fit into individual cells.

● The U.S. government-run Human Genome Project revealed, among other things, the mass of DNA molecules — however, the weight of the chromosomes that house these molecules remained a mystery.

● Understanding this could lead to further insights about the complex structure of chromosomes, which are studied extensively by medical labs for things like cancer diagnoses, according to the researchers.

● To calculate the mass of a standard set of 46 human chromosomes, the study authors used a technique called X-ray ptychography — essentially, creating a 3D model of the chromosomes by shooting them with an extremely powerful X-Ray beam at the U.K.'s Diamond Light Source science center in Oxfordshire.

● With this model, the researchers could calculate the precise number of electrons in each chromosome, allowing the researchers to estimate the chromosomes' total mass.

● The fact that chromosomes weigh 20 times more than the DNA within them puzzled the team; so far, there's no good explanation for this "excess" mass, but further study could reveal the secrets buried below the X.

Reference:

2. Neanderthal Footprint

Context:
The discovery made in the Guattar i Cave (Rome, Italy) of the remains of nine Neanderthals — the true lords of the west (of Europe, although their range was wider) — could offer us another look at our evolutionary history.

Highlights:

● It is a very important find, as it constitutes another fundamental piece to clarify our origins and our past, and reveals that its heritage continues to exist today.

● Today, this inheritance affects many aspects of our daily lives and, as has been found in a recent study, its genes partly influence our susceptibility to covid-19.

● A study carried out by the Max Planck Institute of Evolutionary Anthropology (Germany) and the Karolinska Institute (Sweden) showed that the genes present in the chromosome 3
humans may be associated with more severe forms of SARS-CoV-2 infection, but some genes in the human chromosome 12 of Neanderthal origin. They can promote the immune response and protect us from the attack of the virus.

- In fact, it is estimated that the presence of these genes could reduce the probability of developing the disease by 22%. For this reason, perhaps those who have suffered the disease asymptotically are more Neanderthals than they think.
- Studies of genes that predispose to infection could lead to early identification of patients at risk, according to the researchers.
- In addition, they are gene variants that have a different distribution in the human population: up to 60% of the European population and 50% of the South Asian population would carry the variant that predisposes to infection.
- It was not found in the African population and in the East Asian area. But the good news is that the protective variant would be in the genetic heritage of a third of the world's population (excluding the African continent, where this variant is not present).
- In 2008, the Max Planck Institute for Evolutionary Anthropology sequenced for the first time the mitochondrial DNA (a small “ring” that we inherit from our mothers) of a Neanderthal.
- Since then, we have learned to know our cousins even more and to reveal their secret lives, unfairly considered inferior to Homo sapiens by anthropologists of the 19th century.

Reference:

3. New Covid Variant discovered from Genome Sequencing

Context:
Genome sequencing finds B.1.617 becoming dominant variant of concern in India: INSACOG scientists

Highlights:
- Over 20,000 samples of SARS-CoV-2 have been sequenced from across states, and the consortium has identified variants of concern in 8,000 samples with B.1.617 variant being the dominant one.
- Scientists across various institutions under Indian SARS-CoV-2 Genomics Consortium (INSACOG) have said the B.1.617.2 variant was beginning to take over as the dominant variant of concern in the country.
- INSACOG is the leading national consortium of top scientific institutions in the country involved in genome sequencing of the virus. Over 20,000 samples of SARS-CoV-2 have been sequenced from across states, and the consortium has identified variants of concern in 8,000 samples with B.1.617 variant being the dominant one.
- It has three sub-lineages 1, 2 and 3 and B.1.617.2 has been designated a variant of concern in the UK.
● The World Health Organization (WHO) has also declared it to be a variant of global concern with chief scientist Dr Soumya Swaminathan stating that it might be “dodging vaccine protections”.

● This is an RNA virus, which is bound to mutate, and subsequent waves would be partly because of the virus and our attitude towards it. Vaccines will be rolled out and there will be a challenge for the virus to escape the protection the vaccine offers. However, it can be prevented if we restrict gatherings and stick to appropriate behaviour.

Reference:

B. LANGUAGES & PERSONALITIES

1. Birsa Munda

● For the Hindutva movement, Birsa Munda is an icon only because he and his followers attacked missionaries and the church. But this is a deliberate misreading of history and a willful deception.

● The Hindutva narrative paints Birsa Munda as a saviour of ‘Hindus’ and ‘Hindu culture’ against attack from the Christian missionaries.

● For the Hindutva movement, Birsa Munda is an icon only because he and his followers attacked missionaries and the church.

● But this is not only a deliberate misreading of history but also a willful deception on the part of Hindutva politics with a dual objective of denying the tribal communities of their distinct identity and also attacking the right to choose religion.

● It is true that Birsa Munda attacked Christian missionaries. But these attacks had nothing to do with safeguarding or protecting Hinduism.

● On the contrary, the attacks – both verbal and physical – signified the emergence of a distinct identity consciousness among the Mundas of Chota Nagpur plateau and other tribal communities who were facing continuous attacks from outsiders, including the Christian missionaries.

● Just like the ‘upper caste’ Hindu reformers of the 19th century responded to the evangelical attack upon Hindu religious beliefs and cultural practices through various socio-religious movements and reinterpreted Hindu religious beliefs in light of Western-Christian philosophical-theological precepts and ideas of rationality, Birsa Munda did the same for tribal communities of what is now Jharkhand.

● Remarkably, Birsa Munda took elements from Vaishnavism, Christianity and Mundari religion to propound his own ‘religion’, which at the same time was distinct from all the three. In this way, Birsa should be seen as an organic intellectual who initiated a social reform movement among the Adivasi communities.
Reference:
https://thewire.in/history/birsa-munda-social-reformer-revolutionary-leader

2. Taiwan tribes & disappearing languages

- The island’s Indigenous people are in a race against time to save their native tongues before they are lost forever.
- An estimated 35% of the 400,000 Indigenous people in Taiwan speak their native tongue fluently, but in some communities it’s far less.
- Taiwan’s government formally recognises 16 tribes who inhabited the island for millennia before the arrival of Han people. The Thao, whose traditional lands surround Sun Moon Lake, are the smallest, with fewer than 800 members.
- Thao is in the Austronesian family of languages, which are spoken throughout Indonesia, Malaysia, the Philippines and much of the Pacific. It is among four of the 16 languages in Taiwan considered by Unesco to be critically endangered.
- Under the authoritarian and assimilationist rule of Japan and then the nationalist Kuomintang (KMT) regime, native languages were criminalised. The Thao’s losses extended to land, lives and culture.
- A loss of language is a loss of traditional and cultural practices.
- In 2017 the parliament passed a law to promote and preserve Indigenous languages. It designated the 16 as national languages of Taiwan, increased the Council of Indigenous People’s (CIP) language budget five-fold, and prescribed more Indigenous consultation in policy development, the establishment of a language research and development foundation, and the offering of language courses in schools and colleges.
- There appears to be less literature about the impact in Taiwan, but a study of an Atayal elementary school’s immersive native language program in 2017 found it “greatly enriched”
the student’s enthusiasm and educational outcomes. The school’s average maths score became significantly higher than the national average, and Chinese scores also rose.

Reference:
https://www.theguardian.com/world/2021/jun/09/healing-words-taiwans-tribes-fight-to-save-their-disappearing-languages

UPSC Previous year questions based on today’s concept:

1. Critically Examine that the structure and content of the language are influenced by culture. (15 Marks - 2018)

2. Ethical Issues in Genetic Research (15 marks - 2012)

DAILY PRACTICE QUESTION/S FOR MAINS 2021.

Pl do not forget to upload your answer sheet for a peer review on the telegram channel: Sosin for Anthropology Q&A

1. Ethnocide (10 Marks)

2. Birsa Munda rebellion (15 Marks)