ANTHROPOLOGY NEWS DIARY

(AND)

26.08.2021

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

- Massive study finds that genetic markers associated with same-sex encounters might aid reproduction. But some scientists question the conclusions.
- To evolutionary biologists, the genetics of homosexuality seems like a paradox. In theory, humans and other animals who are exclusively attracted to others of the same sex should be unlikely to produce many biological children, so any genes that predispose people to homosexuality would rarely be passed on to future generations. Yet same-sex attraction is widespread in humans, and research suggests that it is partly genetic.
- In a study of data from hundreds of thousands of people, researchers have now identified genetic patterns that could be associated with homosexual behaviour, and showed how these might also help people to find different-sex mates, and reproduce.
- The authors say their findings, published in *Nature Human Behaviour*, could help to explain why genes that predispose people to homosexuality continue to be passed down.
- The team analysed the genomes of 477,522 people who said they had had sex at least once with someone of the same sex, then compared these genomes with those of 358,426 people who said they’d only had heterosexual sex. The study looked only at biological sex, not gender, and excluded participants whose gender and sex did not match.
- In earlier research, the researchers had found that people who’d had at least one same-sex partner tended to share patterns of small genetic differences scattered throughout the genome.
- Next, the researchers used a computer algorithm to simulate human evolution over 60 generations. They found that the array of genetic variations associated with same-sex behaviour would have eventually disappeared, unless it somehow helped people to survive or reproduce.
- The researchers also found that people who’d had same-sex encounters shared genetic markers with people who described themselves as risk-taking and open to new experiences. And there was a small overlap between heterosexual people who had genes linked to same-sex behaviour and those whom interviewers rated as physically attractive.

*Reference:*
https://www.nature.com/articles/d41586-021-02312-0

2. Darwin’s Galapagos

- The Barcode Galapagos Project uses local people to gather, prepare and process tiny samples in DNA sequencing machines set up in three laboratories on the islands.
- They search the soil and dip into the sea to collect samples left by the islands' plant and animal life, from large to microscopic.
The samples are run through the machines to determine short DNA sequences, producing barcode identifiers or fingerprints of thousands of species that can be compared with similar samples from elsewhere across the world.

So far, the Charles Darwin Scientific Station has registered 10.659 species—some endemic and others introduced—ranging from mammals to bonefish to snakes, fungi and plants, plankton and bacteria.

They've sampled waters as deep as 30 meters (100 feet) as well as dirt from inland regions that holds bits of hair, skin or other biological remnants of animals that have passed by.

The researchers said about 30% to 40% of the species they've found so far don't match any others in a global bank of gene sequences.

**Reference:**

### 3. Peabody Fossils

*Tyrranosaurus rex*, the fearsome predator that once roamed what is now western North America, appears to have had an East Coast cousin.

A new study by Yale undergraduate Chase Doran Brownstein describes two dinosaurs that inhabited Appalachia—a once isolated land mass that today comprises much of the eastern United States—about 85 million years ago: an herbivorous duck-billed hadrosaur and a carnivorous tyrannosaur.

The two dinosaurs, which Brownstein described from specimens housed at Yale's Peabody Museum of Natural History, help fill a major gap in the North American fossil record from the Late Cretaceous and provide evidence that dinosaurs in the eastern portion of the continent evolved distinctly from their counterparts in western North America and Asia.

These specimens illuminate certain mysteries in the fossil record of eastern North America and help us better understand how geographic isolation—large water bodies separated Appalachia from other landmasses—affect the evolution of dinosaurs.

For most of the second half of the Cretaceous, which ended 66 million years ago, North America was divided into two land masses, Laramidia in the West and Appalachia in the East, with the Western Interior Seaway separating them.

While famous dinosaur species like *T. rex* and *Triceratops* lived throughout Laramidia, much less is known about the animals that inhabited Appalachia. One reason is that Laramidia's geographic conditions were more conducive to the formation of sediment-rich fossil beds than Appalachia's.

The partial skeleton of the hadrosaur provided important new information on the evolution of the shoulder girdle in that group of dinosaurs, Brownstein found. The hadrosaur fossils also provide one of the best records of this group from east of the Mississippi and include some of the only infant/perinate (very young) dinosaur fossils found in this region.

**Reference:**
ARCHAEOLOGICAL ANTHROPOLOGY
1. Bronze Age Farmers

- Meat and dairy played a more significant role in human diets in Bronze Age China than previously thought.
- A new analysis also suggests that farmers and herders tended to sheep and goats differently than they did their cows, unlike in other parts of the world -- keeping cows closer to home and feeding them the byproducts of grains that they were growing for their own consumption, like the grass stalks from millet plants.
- The study published in *Scientific Reports* integrates new and previously published data from nine sites along the Hexi Corridor, a key region between the Gobi Desert and Tibetan Plateau that facilitated the movement of ancient crops between Central and East Asia.
- Using the method of stable isotope analysis, we looked at the diets of the local herbivores that were managed in the Bronze Age Hexi Corridor of northwestern China.
- The results showed that cattle and sheep or goats were managed distinctly in the different ecological niches across the study region. We propose that this was a result of varying management choices made by the local farmers, who aimed to strike a balance between tradition and innovation.
- In previous research, this method has been applied to understanding the nature of human diets, and the role of different domesticates in it.
- While sheep and goats seem to have eaten naturally available vegetation by grazing in the vicinity of the villages, the scientists found evidence that cattle were both grazed and fed.
- The cattle bones that the researchers analyzed exhibited a higher input of plants that are more adapted to arid conditions in places where these plants contributed little to the natural vegetation. This group of crops includes millet, which was originally cultivated in Eastern Asia.
- These findings suggest that cattle diets were more influenced by human provisioning and that cattle may therefore have been reared closer to the human settlements than sheep and goats.
- These conclusions resonate with modern ethnographic examples from North China, the researchers said, where cattle are more tethered to human settlements, rather than being allowed to roam on local or more distant pastures alongside sheep and goats.

Reference:
https://www.sciencedaily.com/releases/2021/08/210804141206.htm

2. Mesolithic

- Mesolithic, also called the Middle Stone Age, is an ancient cultural stage that existed between the Paleolithic(Old Stone Age), with its chipped stone tools, and the Neolithic(New Stone Age), with its polished stone tools.
- Among the new forms of chipped stone tools were microliths, very small stone tools intended for mounting together on a shaft to produce a serrated edge.
● Polished stone was another innovation that occurred in some Mesolithic assemblages.
● Although culturally and technologically continuous with Paleolithic peoples, Mesolithic culture developed diverse local adaptations to special environments.
● The Mesolithic hunter achieved greater efficiency than did the Paleolithic and was able to exploit a wider range of animal and vegetable food sources.
● Immigrant Neolithic farmers probably absorbed many indigenous Mesolithic hunters and fishers, and some Neolithic communities seem to have been composed entirely of Mesolithic peoples who adopted Neolithic equipment (these are sometimes called Secondary Neolithic).
● Because the Mesolithic is characterized by a suite of material culture, its timing varies depending upon location.

Reference:
https://www.britannica.com/event/Mesolithic

UPSC Previous year questions based on today’s concept:

1. Mesolithic (S.N. - 2000)
2. Copper - Bronze Age (S.N. - 1999)

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. Mesolithic cultures of India. (20 Marks)