ANTHROPOLOGY NEWS DIARY

(AND)

23.07.2021

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. Gut Health.................................................................03
2. Dinosaur Health Problems..................................................03
3. Neanderthal Hunting.........................................................04

B. ARCHAEOLOGICAL ANTHROPOLOGY
1. Maligaimedu Dig..............................................................05
2. Paleolithic Diet...............................................................05

UPSC ANTHROPOLOGY PREVIOUS YEAR QUESTIONS.................................................................06
PRACTICE QUESTIONS FOR PEER REVIEW........................................................................06

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

1. Gut Health

- A new study in mice shows that normally, the immune system keeps potentially pathogenic fungi such as *Candida albicans* in check, targeting them when they switch into a state that can cause harm; when the system is off-balance, disease is more likely to occur.
- Fungi have been wholly understudied in part because they are vastly outnumbered by bacteria.
- New tools and technologies are starting to make investigations like this one possible.
- The scientists became interested in this line of research after noting that a common medical test for diagnosing Crohn’s disease, a type of inflammatory bowel disease, works by detecting antibodies against fungi.
- To dig deeper, the researchers searched for the trigger of the immune response.
- Investigation showed that antibodies zeroed in on elongated fungal cell types called hyphae, specifically binding to proteins called adhesins that help microbes stick to surfaces and become invasive.
- They found that mice populated with *Candida albicans* in its normal, rounded state remained healthy.
- In contrast, mice populated with the yeast in its invasive form caused intestinal damage that resembled inflammatory bowel disease.
- The results show that normal antibody responses in the gut inhibit disease by recognizing the harmful, hyphal form of fungi.

*Reference:*

2. Dinosaur Health Problems

- The Cretaceous-period hadrosaurid dinosaur had a foot tumor and two painful fractures in the vertebrae of its tail, according to a new study.
- It lived in what is now Argentina during the Campanian and Maastrichtian stages of the Late Cretaceous epoch, around 70 million years ago.
- Its partial skeleton was found at the site of Salitral Moreno in Argentinean Patagonia in 1984.
- In addition to the ailment, there were other possible fractures in several neural spines of the vertebrae of the tail.
- When studying the histology and CT scans of the fossil, we did not find a fracture. Instead, the indicators showed a reduction in bone density and several areas where cortical tissue had been destroyed.
- The researchers also identified two pathologies in the neural spines of vertebrae in *Bonaparte Saurus rionegrensis*’ tail.
One of the vertebrae had a displaced fracture that had almost healed. It was probably related to an injury resulting from a strong blow that caused the bone to be displaced and to heal in this manner, giving the spine a curved appearance.

These fractures, especially in the case of the displaced fracture, must have been associated with infections following the rupture of the muscles surrounding the bone.

They must have been painful not only because of the blow, but also because of the infections that could have impeded the mobility of the tail and caused this specimen a great deal of discomfort when it moved.

Reference:

3. Neanderthal Hunting

- 65,000 years ago Neanderthal from the Swabian Jura hunted horses and reindeer with hafted leaf-shaped stone points. A newly discovered leaf point from the UNESCO World Heritage site of Hohle Fels Cave documents the evolution of hunting.
- The scientists recovered the artifact underlying a layer dating to 65,000 years ago, which represents a minimum age for the find.
- Microscopic studies document that this carefully made projectile point was mounted on a wooden shaft and used as a thrusting spear to kill large game.
- The new discovery represents the first time a leaf point has been recovered from a modern excavation, allowing researchers to study the fresh find with state-of-the-art methods.
- The last time researchers in the region recovered such artifacts was in 1936.
- The results document how the tool was made, used and why it was discarded.
- Thanks to a series of four ESR-dates the find is securely dated to over 65,000 years ago.
- Until now finds of leaf points were interpreted as belonging to the period between 45,000 and 55,000 years ago, and belonging to the last cultural phase of the Neanderthals in Central Europe.
- Damage to the tip indicates that the artifact was used as a hafted spear point, and that the spear was likely thrust into prey rather than being thrown.
- Rots' work documents how Neanderthals used plant-based glue and bindings made from plant fibers, sinew or leather to secure the leaf point to the spear.
- Earlier fossil humans during the time of Homo heidelbergensis used sharpened wooden spears for hunting, but these spears lacked mounted stone points like those used by Neanderthals.

Reference:
B. ARCHAEOLOGICAL ANTHROPOLOGY

1. Maligaimedu Dig

Context:
A major dig is taking place at Maligaimedu site to know more about the royal palace and capital of King Rajendra Chola I.

Highlights:
- The State Department of Archaeology has made some encouraging finds less than two months into the excavation at Maligaimedu near Gangaikondacholapuram, the capital of King Rajendra Chola I.
- Thirteen coarse brick walls have been exposed so far at the site. A copper coin, some potsherds and iron pieces have been collected. Besides, a piece of Chinese celadon ware, belonging to the 10-11th century, has also been found.
- The coin was supposed to be sent for chemical cleaning but going by its circular shape, it can be assumed that it is a Chola period one. The presence of celadon ware is indicative of the trade ties that had existed.
- Gangaikondacholapuram was established by King Rajendra Chola I (1012-1044 CE) after his victorious expedition up to the Gangetic plains.
- Excavations conducted earlier at Maligaimedu had revealed the remains of a royal palace.
- The previous excavations were carried out at the site on a smaller scale on six occasions when portions of the Rajendra Chola’s palace were unearthed. Antiques and other items found in the excavations are on display at a museum at Gangaikondacholapuram.
- The present excavation at the site began towards the end of February 2021 after conducting surveys using drone, thermal cameras and ground penetrating radars, with the help of various agencies. Excavation is now underway at five trenches at the site. The department is looking to take up exploration on a larger scale now to find out more about the palace, the city and its streets.

Reference:

2. Paleolithic Diet

Context:
An international team of researchers dated and analyzed collagen from the remains of four people unearthed in the Catalonia region of Spain and gathered information on the Paleolithic Diet.
Findings:

- The hunter-gatherers lived between 25,000 and 27,000 years ago and ate mostly plants and land animals.
- Based upon the analysis of individual amino acids in the collagen, the researchers identified deer and horses as part of the regular diet, with a reliance on small animals such as rabbits.
- The study revealed that the four individuals ate almost no fish, even though they lived near the coast.

Reference:

UPSC Previous year questions based on today’s concept:

1. Describe the absolute dating methods in archaeology, highlighting the importance of each method. (15 Marks - 2014)
2. Give a broad outline of paleolithic culture emphasizing upon its tool technology (20 Marks - 2013)

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. Write an essay on Palaeolithic cultures of India. (20 Marks)