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](https://telegram.com) for peer review.
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Note - For convenience, the respective reference links have been dropped at the end of every topic.
A. BIOLOGICAL ANTHROPOLOGY
  1. Neanderthal - artists

- Archaeologists put doubts to rest: 65,000-year-old daubings in Ardales Cave in Spain were deliberate, not accidents with ochre or bacterial secretions.
- The cave of Ardales in Malaga, Spain was richly decorated in prehistoric times, with over 1,000 images created over thousands of years.
- Some of the images are figurative and were created by Homo sapiens, but some of the non-figurative markings are as old as 65,000 years – well before the earliest evidence of Homo sapiens in Europe.
- In a new study, a team of scientists say they are the product of Neanderthal painters who, Jackson Pollock-style, splattered ochre paint in their cave habitat for over 20,000 years – most likely spitting it out.
- Three caves in Spain have such daubings from that time, predating the proven advent of Homo sapiens to the area by about 20,000 years.
- With the caveat that modern humans may have reached Europe well before the earliest proof of their arrival (about 45,000 years ago), and with the additional caveat that Neanderthals and Homo sapiens had been interbreeding beforehand, when the first paintings were made the area was known to be inhabited by Neanderthals.
- First, the team of scientists – from universities in Spain, Portugal, France and Germany – wanted to put to rest any lingering doubts regarding the human origin of the cave markings.
- Analysis of the iron-rich red pigment marking one huge stalagmite, dubbed “panel II.A.3 of Sala de las Estrellas,” from the Middle Pleistocene shows that it can’t have originated inside the cave. It had to have been brought in.
- The archaeologists also argue that the marks on the stalagmite didn’t come from ochre applied to the Neanderthals’ bodies or garb that accidentally rubbed off when they brushed against narrow cave walls, because the stalagmite is in the middle of a large chamber.
- In other words, these paintings were human-made and deliberate, not accidents of nature or happenstance of clumsy body-painted cave-dwellers lurching about. Nor were these markings the result of some artistic burst at one point in time, but were created over a span of 20,000 years.
- Based on the variations in the composition of the pigment, the scientists say that the Neanderthals marked the cave in at least two painting events. Or, more likely, decorated the cave formations over a very long time.

Reference:
https://www.haaretz.com/archaeology/for-over-20-000-years-neanderthals-spat-paint-on-this-stalagmite-1.10104975
2. Menopause & Genetics

- A series of genetic signals that influences the age women begin menopause has been identified, potentially paving the way to fertility treatment that could extend the natural reproductive lifespan of women.
- Researchers scanned the genes of more than 200,000 women and found nearly 300 genetic signals that researchers said could help identify why some women are predisposed to early menopause, the health consequences of going through menopause early and whether these signals can be manipulated to improve fertility.
- The study led by scientists from the universities of Cambridge, Exeter and Copenhagen and still in its early stages, found that two genes named CHEK1 and CHEK2 were key to understanding the difference between these women.
- When CHEK2 was inhibited in mice, their offspring had a longer reproductive life span.
- Similarly, when CHEK1 was overexpressed in the mice, that extended the offspring’s reproductive lifespan by enhancing the starting number of eggs in fetal life.
- Their data suggested that women who lacked enough CHEK2 protein experienced menopause more than three years later than those who had normal CHEK2 levels.
- The researchers also examined certain health impacts of having an earlier or later menopause.
- They found genetically that earlier menopause increased the risk of type 2 diabetes and was linked to poorer bone health and increased risk of fractures.
- But they also found earlier menopause decreased the risk of some types of cancer, such as ovarian and breast cancer.

Reference:
https://www.theguardian.com/society/2021/aug/04/genetic-secret-to-age-women-start-menopause-discovered

3. Anglo Saxons

- A new study from archaeologists at University of Sydney and Simon Fraser University in Vancouver, has provided important new evidence to answer the question "Who exactly were the Anglo-Saxons?"
- New findings based on studying skeletal remains clearly indicates the Anglo-Saxons were a melting pot of people from both migrant and local cultural groups and not one homogenous group from Western Europe.
- The Anglo-Saxon (or early medieval) period in England runs from the 5th-11th centuries AD. Early Anglo-Saxon dates from around 410-660 AD -- with migration occurring throughout all but the final 100 years (ie 410-560AD).
- Based on this, the researchers collected 3D data from suitably dated skeletal collections from Britain and Denmark, and then analysed the data to estimate the ancestry of the Anglo-Saxon individuals in the sample.
The researchers found that between two-thirds and three-quarters of early Anglo-Saxon individuals were of continental European ancestry, while between a quarter and one-third were of local ancestry.

When they looked at skeletons dated to the Middle Anglo-Saxon period (several hundred years after the original migrants arrived), they found that 50 to 70 percent of the individuals were of local ancestry, while 30 to 50 percent were of continental European ancestry, which probably indicates a change in the rate of migration and/or local adoption of culture over time.

These findings tell us that being Anglo-Saxon was more likely a matter of language and culture, not genetics.

Reference: https://www.sciencedaily.com/releases/2021/06/210623144901.htm

4. Feathered Dinosaur Species

Paleontologists in Brazil have unveiled a new species of unenlagia dromaeosaurid dinosaur from the Maastrichtian age of the Cretaceous period.

The new dinosaur species walked the Earth between 72 and 66 million years ago (Late Cretaceous epoch).

Named *Ypupiara lopai*, it belonged to a subfamily of feathered theropod dinosaurs in the family Dromaeosauridae.

Dromaeosauridae are present in all continents during the Mesozoic Era.

In Gondwanan landmasses, the Unenlagiinae lineage constitutes a diversification of dromaeosaurids, comprising five species recovered from Argentinean localities.

The presence of Unenlagia specimens in Brazil is restricted to a single dorsal vertebra from the Campanian-Maastrichtian sequences of the Adamantina Formation.

*Ypupiara lopai* provides new information on the evolution of Gondwanan dromaeosaurids, and its preserved teeth provide new data to enable the assignment of isolated dromaeosaurid teeth from the Bauru Group.


5. Evolution of Dinosaur Breathing

Using an exceptionally preserved fossil from South Africa, a particle accelerator, and high-powered x-rays, an international team including a University of Minnesota researcher has discovered that not all dinosaurs breathed in the same way.

The findings give scientists more insight into how a major group of dinosaurs, including well-known creatures like the triceratops and stegosaurus, evolved.

Not all animals use the same techniques and organs to breathe. Humans expand and contract their lungs. Birds have air sacs outside their lungs that pump oxygen in, and their lungs don’t actually move.
● For a long time, paleontologists assumed that all dinosaurs breathed like birds, since they had similar breathing anatomy.
● This study, however, found that Heterodontosaurus did not — it instead had paddle-shaped ribs and small, toothpick-like bones, and expanded both its chest and belly in order to breathe.
● Heterodontosaurus is the oldest dinosaur in the Ornithischian line, one of three major dinosaur groups that includes Triceratops, Stegosaurus, and other duck-billed dinosaurs. The other groups are sauropods, or longnecks, and theropods like the T-Rex.
● The interesting thing is that Heterodontosaurus is the ancestor of this group and it has these [newly discovered] pieces of anatomy, but its descendants don’t. What that means is that Heterodontosaurus is a missing link between the ancestors of dinosaurs and the bigger, charismatic species we know.
● This gives us a whole bunch of information and fills in some pretty glaring gaps in our knowledge of the biology of these dinosaurs.

Reference:

UPSC Previous year questions based on today’s concept:
1. Menopause & its impact (10 Marks - 2015)
2. Biological Adaptation (S.N. - 2002)

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. Is menopause unique to humans? (15 Marks)