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.
A. BIOLOGICAL ANTHROPOLOGY

1. Humans & Ecosystems
   - After centuries of human impact on the world’s ecosystems, a new study details an example of how a common native bee species has flourished since the very first land clearances by humans on Fiji.
   - In a new paper in *Molecular Ecology*, research led by Flinders University explores a link between the expansion of *Homalictus fijienisis*, a common bee in the lowlands of Fiji, which has increased its spread on the main island Viti Levu alongside advancing land clearance and the introduction of new plants and weeds to the environment.
   - Earlier research connected the relatively recent population expansion to warming climates, but our study reveals an interesting and positive response from an endemic species to human modifications to the landscape which commenced about 1000 BC.
   - This species is a super-generalist pollinator (pollinates many plant species) and likes to nest in open, cleared ground, so one of the most important bee pollinators in Fiji actually appears to have benefited from human arrival and subsequent clearing of land in Fiji.
   - The study examined changes in native bee populations in Fiji using phylogenetic analyses of mitochondrial and genomic DNA. They show that bee populations in Fiji expanded enormously, starting about 3000 years ago and accelerating from about 2000 years ago.
   - That is too recent to be explained by a warming climate since the last glacial maximum which ended about 18,000 thousand years ago.
   - Instead, we argue that the expansion of Fijian bee population coincides with the early occupation of the Pacific islands by the somewhat-mysterious Lapita people, and this expansion accelerated with the increasing presence of later Polynesians in Fiji who modified the landscape with their agricultural practices.
   - A persistent question in studies of ecosystems over the last 60,000 years or so concerns the relative roles of climate change and human modifications of the environment.
   - Early European explorers and naturalists were unaware that extensive human dispersals had already been transforming the ecologies of Pacific islands for millennia. This study adds important details to an emerging picture of the Pacific as a highly cultivated landscape.

Reference: [https://www.sciencedaily.com/releases/2021/06/210629101223.htm](https://www.sciencedaily.com/releases/2021/06/210629101223.htm)

2. Comet Strike & Human Civilization
   - A cluster of comet fragments believed to have hit Earth nearly 13,000 years ago may have shaped the origins of human civilization, research suggests.
   - Possibly the most devastating cosmic impact since the extinction of the dinosaurs, it appears to coincide with major shifts in how human societies organised themselves, researchers say.
• Their analysis backs up claims that an impact occurred prior to the start of the Neolithic period in the so-called Fertile Crescent of southwest Asia.

• During that time, humans in the region -- which spans parts of modern-day countries such as Egypt, Iraq and Lebanon -- switched from hunter-gatherer lifestyles to ones centred on agriculture and the creation of permanent settlements.

• It is thought that the comet strike -- known as the Younger Dryas impact -- also wiped out many large animal species and ushered in a mini ice age that lasted more than 1,000 years.

• Since it was proposed in 2007, the theory about the catastrophic comet strike has been the subject of heated debate and much academic research.

• Now, researchers from the University of Edinburgh have reviewed evidence assessing the likelihood that an impact took place, and how the event may have unfolded.

• Their analysis highlights excess levels of platinum, signs of materials melted at extremely high temperatures and the detection of nanodiamonds known to exist inside comets and form during high-energy explosions.

• The team says further research is needed to shed more light on how it may have affected global climate and associated changes in human populations or animal extinctions.

Reference:
https://www.sciencedaily.com/releases/2021/06/210624114509.htm

3. Survival against Coronavirus

• Researchers analyzed the genomes of more than 2,500 modern humans from 26 worldwide populations, to better understand how humans have adapted to historical coronavirus outbreaks.

• In a paper published in *Current Biology*, the researchers used cutting-edge computational methods to uncover genetic traces of adaptation to coronaviruses, the family of viruses responsible for three major outbreaks in the last 20 years, including the ongoing pandemic.

• Modern human genomes contain evolutionary information tracing back hundreds of thousands of years, however it's only in the past few decades geneticists have learned how to decode the extensive information captured within our genomes.

• This includes physiological and immunological 'adaptations' that have enabled humans to survive new threats, including viruses.

• Viruses are very simple creatures with the sole objective to make more copies of themselves. Their simple biological structure renders them incapable of reproducing by themselves so they must invade the cells of other organisms and hijack their molecular machinery to exist.

• In the study researchers found signs of adaptation in 42 different human genes encoding VIPs.

• Other independent studies have shown that mutations in VIP genes may mediate coronavirus susceptibility and also the severity of COVID-19 symptoms. And several VIPs are either
currently being used in drugs for COVID-19 treatments or are part of clinical trials for further drug development.

- "Our past interactions with viruses have left telltale genetic signals that we can leverage to identify genes influencing infection and disease in modern populations and can inform drug repurposing efforts and the development of new treatments.
- The researchers also note that their results in no way supersede pre-existing public health policies and protections, such as mask wearing, social distancing, and vaccinations.

Reference:
https://www.sciencedaily.com/releases/2021/06/210624142238.htm

B. ARCHAEOLOGICAL ANTHROPOLOGY
1. Underwater Archaeology
   - An underwater archaeologist from The University of Texas at Arlington is part of a research team studying 9,000-year-old stone tool artifacts discovered in Lake Huron that originated from an obsidian quarry more than 2,000 miles away in central Oregon.
   - The obsidian flakes from the underwater archaeological site represent the oldest and farthest east confirmed specimens of western obsidian ever found in the continental United States.
   - The unique study was a multi-faceted pursuit with divers in the water and researchers.
   - Because the site was underwater and undisturbed, researchers systematically and scientifically recovered the obsidian, a form of volcanic glass that was used and traded widely throughout much of human history as a prized material for making sharp tools.
   - The find in Lake Huron is part of a broader study to understand the social and economic organization of caribou hunters at the end of the last ice age.
   - Water levels were much lower then; scientists have found, for example, ancient sites like stone walls and hunting blinds that are now 100 feet underwater.
   - The preservation of ancient underwater sites is unparalleled on land, and these places have given us a great opportunity to learn more about past peoples.

Reference:

2. Archaeology & Neanderthals
   - Neanderthals were survivors. Back in the 1850s, nobody was sure how long ago Neanderthals had lived, other than the fact they had existed alongside species now vanished from Europe, such as reindeer, and long-extinct beasts like woolly rhinoceros.
   - They weren’t stuck in a big game rut. Theories that perhaps Neanderthals vanished because they were poor hunters have abounded. Yet evidence from close study of animal bones, chemical analysis, and microremains in sediment or even their own dental calculus shows they were highly flexible in dietary terms.
Neanderthals were artisans and innovators. Notions that Neanderthals were inherently unsophisticated and lived in a state of technological stasis persist.

Home was where the hearth is. Remarkable twenty-first century excavation methods allow us to pick apart Neanderthal living sites in mind-boggling detail. Archaeologists might only trowel away a few centimeters in a field season, but these can contain centuries of occupation.

Neanderthals talked to each other. Recent research shows that Neanderthal voice boxes could make similar sounds to ours, and their inner ears were tuned into the same frequencies: speech.

They lived in small populations (mostly). Modern archaeological research has picked away at one of the trickier problems in understanding Neanderthals: How many of them lived together? High resolution sites (where sediments accumulated slowly and short occupations can be discerned) confirm that groups likely contained no more than 20 individuals, and sometimes split up to go off into the landscape.

There was such a thing as Neanderthal aesthetics. A growing body of evidence supported by meticulous analysis indicates that Neanderthals sometimes engaged with materials in ways that have no clear function.

Aggression was not the basis of their society. Assumptions that Neanderthals were by nature violent are not reflected in their bones or the archaeology.

Neanderthals had different ways of dealing with the dead. Debates over possible Neanderthal burials have existed since the early twentieth century.

We met them many times. One of the greatest revolutions in our knowledge of Neanderthals—that they did not entirely vanish—came with the first sequencing of the Neanderthal genome in 2010.

Reference:
https://anthropology-news.org/articles/ten-things-archaeology-tells-us-about-neanderthals/

UPSC Previous year questions based on today’s concept:

1. Archaeological Anthropology (15 Marks - 2000)
2. Ecological Anthropology (15 Marks - 1997)

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. Underwater Archeology 20 Marks