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Adichanallur Excavations

The Archaeological Survey of India has undertaken an extensive excavation at Adichanallur in Tamil Nadu.

- In 1903-04 British archaeologist Alexander Rea unearthed a treasure of over 9,000 objects in Adichanallur.
- Nearly 100 years later in 2004 and 2005 archaeologists found a lot of iron objects, and a few copper objects but no bronze or gold, as they were more focused on habitations.
- In October 2021 using the Geological Survey of India (GSI) data and clues discovered from Rea's report, the ASI team zeroed in on the trenches to be dug.
- The site has about seven possible burials of the heads of important persons of the clans that existed between 500 to 1,000 BCE.
- The recent excavations have yielded a wealth of materials, including gold, metals and human remains.
- This will help archaeologists reconstruct the framework of this ancient civilisation.
- Various Materials unearthed include
    - burial urns
    - 3000 years old Human skull
    - Bronze artefacts
    - Headgear
    - Spear
    - Arrowheads
    - Dog toy
    - Paddy
- **Gold diadem -** In the first trench, they found objects in bronze and gold similar to the 14 gold diadems discovered by Alexander Rea.
- Gold was an inland source from the region located north of the present northern borders of Tamil Nadu.
- Several gold workings are reported from the neighbourhood of the Hutti gold mines, the present Raichur district of Karnataka.
- Some of them have been dated to about 3,000 years ago.
- Sanganakallu, a Neolithic and Megalithic site near Ballari in Karnataka, has yielded gold foils but in small quantities and not from a burial context like at Adichanallur.
- The granulite terrain in Tamil Nadu is also reported to yield gold.
- From 1,000 BCE onwards since the beginning of the megalithic or Iron Age in south India, gold was a traded commodity.
- So it is not surprising that it has been found in Adichanallur.
- However, how long ago this gold was exploited is not known.
- Adichanallur is the first archaeological site in Tamil Nadu where gold was excavated.

- Not far from the Adichanallur lies Korkai the ancient port city of the Pandya kings.
- Archaeologists doubt if Adichanallur was a satellite village of Korkai port city.
- **Maritime trade -** Associated materials yielded vital clues for maritime trade activities at the southern rim of the Indian Ocean.
- Recoveries of many Tamil cultural artefacts in Vietnam, Cambodia and other South East and Far East Asian countries right from the Iron Age till the early 17th Century prove that there were aggressive free sea trade activities that flourished for a long time.
- Skeletal biological data from the skeletal remains however was insufficient to draw a genuine conclusion on the structure of the ancient community.
- But the results on pathological skeletal and dental abnormalities were amazing
- Such abnormalities had never been reported from anywhere else so far.

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Digi Yatra

The Digi Yatra contactless passenger processing system has been planned to be launched in 7 airports.

- Digi Yatra seeks to provide a seamless, paperless, and hassle-free experience for passengers across all checkpoints at all Indian airports.
- The objective is to enhance the passenger experience by eliminating the need for verification of tickets and ID at multiple touch points.
- The entry of passengers would be automatically processed based on the facial recognition system at various checkpoints.
- The passenger needs to download the DigiYatra app and register on it using Aadhaar credentials followed by a selfie with the Aadhaar card.
- After this, vaccination details using Cowin credentials have to be added.
- Then, the person will have to scan his or her boarding pass with the QR code or Bar code, after which the credentials will be shared with the airport.
- During entry into the airport, a passenger needs to scan his boarding passes at the e-gate and look into the facial recognition system camera installed there.
- A similar method will be applicable for entry into other checkpoints.
- The system is based on the use of single token face biometrics for the verification of passengers.
- Under the system, facial recognition would be done with the consent of the passenger as per the extant data privacy and data protection regulations.
- Data shared by the passenger will not be retained for more than 24 hours after the departure of the flight.
- Also, the Digi Yatra Central Identity Management Platform would be developed.
- The project is being implemented by the DigiYatra Foundation
- It is a joint-venture company with the Airports Authority of India having a 26% stake

and Bengaluru Airport, Delhi Airport, Hyderabad Airport, Mumbai Airport and Cochin International Airport equally holding the remaining 74% of the shares.
- The DigiYatra Foundation will be the custodian of the passenger ID validation process.
- It will also define the criteria for compliance and guidelines for the local airport systems.
- There will be regular audits of the various compliances and guidelines (including guidelines on security, image quality, and data privacy).
- In the first phase, DigiYatra will be rolled out in Varanasi and Bengaluru.
- By March next year in the second phase, it will be rolled out in Pune, Vijayawada, Kolkata, Delhi and Hyderabad.
- The Airport Authority of India (AAI) will identify the airports where DigiYatra will be implemented in a phased manner.
- DigiYatra Central Ecosystem (DYCE) is being built on the standards defined by the World Wide Web Consortium (W3C) which include
    - Self-Sovereign Identity (SSI) with Verifiable Credentials (VCs),
    - Decentralised Identifiers (DIDs) with a trust layer of a Distributed Ledger.

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History of PIN code

The 75th Independence Day marks the 50th year of the introduction of the PIN code.

- On August 15, 1972, that the Postal Identification Number (PIN) was introduced in India.
- The initiative was led by Shriram Bhikaji Velankar.
- At the time of Independence, there were 23,344 post offices in India.
- They were primarily in urban areas. As the country was growing rapidly and the postal network had to keep pace.
- The PIN code eased the process of mail sorting and delivery in a country where different places, often, have the same or similar names, and letters are written in a wide variety of languages.
- The PIN is made up of six digits.
- The first number indicates the postal region — Northern, Eastern, Western, and Southern. Number 9 signifies the Army Postal Service.
- The second number denotes a sub-region, and the third represents the sorting district.
- The remaining numbers narrow the geography further to the specific post office making the delivery.
- **Other parallel systems in the world –**
- **USA –** Zone Improvement Plan (ZIP) code.
- It was set up under the aegis of the Postal Service Nationwide Improved Mail Service

plan to improve the speed of mail delivery
- Earlier letters went through about 17 sorting stops.
- **UK –** UK started mechanised sorting of mails in the 1960s.
- An alphanumeric postal code was used for sorting by machine at every stage.
- The coding equipment translates the postal code into a pattern of dots by means of which machines can sort mail at eight times the speed of manual sorting.
- **Japan** created its postal code address system in July 1968, and automatic postal code reader-sorters exist in major post offices of the country.
- **Shriram Bhikaji Velankar –** Velankar was then the additional secretary in the Union Ministry of Communications and a senior member of the Posts and Telegraphs Board.
- He was also a Sanskrit poet of eminence.
- He had been conferred the President's Award for Sanskrit in 1996.
- Among Velankar's 105 books and plays in Sanskrit the Viloma Kavya is a literary masterpiece.
- It comprises verses in praise of Lord Rama when read from one side and, when to read backwards, it is transformed into verses dedicated to Lord Krishna.
- Velankar had set up a cultural group in Mumbai, called the Dev Vani Mandiram, which worked to create awareness about Sanskrit in India and foreign countries.
- Velankar was also the chairman of the World Philatelic Exhibition, called Indipex, which was held in New Delhi in 1973 and featured 120 countries.

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Ethanol Blending

India has achieved the target of blending 10% ethanol in petrol ahead of schedule.

- India is the world's fifth largest producer of ethanol after the U.S., Brazil, the EU and China.
- India is the world's third-biggest oil importing and consuming nation.
- Ethanol is produced from molasses a by-product of the sugar industry.
- Ethanol worldwide is largely used for consumption but nations like Brazil and India also dope it in petrol.
- As the availability of ethanol increases, the equivalent amount of crude (used for petrol production) import is reduced.
- In a bid to cut reliance on imported oil, the government is pushing for the mixing of ethanol, made from sugarcane and other Agri commodities, in petrol.
- During surplus production, sugar mills get low prices for sugar. In such times converting molasses to ethanol for blending will help save the sugar mill owners.
- To achieve this Ethanol Blended Petrol programme was launched in January 2003 in 9 states and 4 UTs.
- It seeks to blend Ethanol with motor spirit with a view to reducing pollution, conserving foreign exchange and increasing value addition in the sugar industry.

- Initially, the Oil Marketing Companies were directed to sell 5% Ethanol Blended Petrol.
- In April 2019 the programme has been extended to the whole of India except the Union Territories of Andaman Nicobar and Lakshadweep islands wherein OMCs sell petrol blended with ethanol up to 10%.
- The Central Government has scaled up blending targets from 5% to 10% under the Ethanol Blending Programme (EBP).
- In 2018-19 5% blending of ethanol was achieved using 189 crore litres of ethanol supplied by sugar mills and grain-based distilleries to OMCs.
- During 2020-21 blending 8.5% blending was achieved.
- Now the target of blending 10% ethanol was achieved in June 2022 ahead of the original schedule of November 2022.
- Encouraged by this success, the government advanced the target of making petrol with 20% ethanol by five years by 2025.
- 10% ethanol blending had resulted in
    - a saving of about ₹50,000 crores of foreign exchange
    - reduced greenhouse gas emissions
    - alternate source of income for farmers
- The Centre had announced an additional duty of ₹2 per litre on unblended fuels starting October 2022 to incentivise blending.
- That duty will no longer be effective as the target of a 10% blend has been achieved.

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Women heroes of India’s freedom struggle

In the Independence Day address, Prime Minister paid tribute to women freedom fighters of India.

- During the Independence Day address, Prime Minister praised the heroism of women freedom fighters Rani Laxmibai, Jhalkari Bai, Durga Bhabhi, Rani Gaidinliu, Rani Chennamma, Begum Hazrat Mahal and Velu Nachiyar.

Rani Laxmibai –

- Rani Laxmibai was the queen of the princely state of Jhansi.
- She is known for her role in the First War of India’s Independence in 1857.
- She was born in 1835. Her original name was Manikarnika Tambe.
- She was married to the king of Jhansi.
- The couple adopted a son before the king’s death.
- The British East India Company refused to accept the son as legal heir and decided to

annex Jhansi.
- Refusing to cede her territory, the queen decided to rule on behalf of the heir and later joined the uprising against the British in 1857.
- Cornered by the British, she escaped from Jhansi fort.
- She was wounded in combat near Gwalior's Phool Bagh, where she later died.
- Sir Hugh Rose, who was commanding the British army, is known to have described her as "personable, clever and one of the most dangerous Indian leaders".

Jhalkari Bai –

- Jhalkari Bai was a soldier in Rani Laxmibai's women's army.
- She rose to become one of the queen's most trusted advisers.
- She put her own life at risk to keep the queen out of harm's way.
- To date, the story of her valour is recalled by the people of Bundelkhand, and she is often presented as a representative of Bundeli identity.
- The region looks up to her as an incarnation of God and also celebrates Jhalkaribai Jayanti every year in her honour.

Durga Bhabhi -

- Durgawati Devi, popularly known as Durga Bhabhi, was a revolutionary who joined the armed struggle against colonial rule.
- She was born in Allahabad in 1907 and married to Hindustan Socialist Republican Association (HSRA) member Bhagwati Charan Vohra
- She was a member of the Naujawan Bharat Sabha.
- She helped Bhagat Singh escape in disguise from Lahore after the 1928 killing of British police officer John P Saunders.
- As revenge for the hanging of Bhagat Singh, Rajguru, and Sukhdev, she made an unsuccessful attempt to kill the former Punjab Governor, Lord Hailey.
- Durgawati, along with other revolutionaries, also ran a bomb factory in Delhi.

Rani Gaidinliu -

- Rani Gaidinliu was born in 1915 in present-day Manipur
- She was a Naga spiritual and political leader who fought the British.
- She joined the Heraka religious movement which later became a movement to drive out the British.
- She rebelled against the Empire and refused to pay taxes, asking people to do the same.
- The British launched a manhunt, but she evaded arrest, moving from village to village.
- However, she was finally arrested in 1932 when she was just 16 and later sentenced to life.
- She was released in 1947. Prime Minister Jawaharlal Nehru, described Gaidinliu as the "daughter of the hills", and gave her the title of 'Rani' for her courage.

Rani Chennamma -

- The queen of Kittur, Rani Chennamma, was among the first rulers to lead an armed

rebellion against British rule.
- Kittur was a princely state in present-day Karnataka.
- She fought back against the attempt to control her dominion in 1824 after the death of her young son.
- She had lost her husband, Raja Mallasarja, in 1816.
- She is seen among the few rulers of the time who understood the colonial designs of the British.
- Rani Chennamma defeated the British in her first revolt but was captured and imprisoned during the second assault by the East India Company.

Begum Hazrat Mahal –

- Her maiden name was Muhammadi Khanum.
- She was born at Faizabad, Awadh.
- Later in life, she performed a mutah marriage with Nawab Wajid Ali Shah.
- Awadh was annexed by the British East India Company in 1856.
- Her husband, Nawab of Awadh Wajid Ali Shah, was sent to exile to Calcutta after the 1857 revolt.
- But she decided to stay back in Lucknow along with her son Birjis Qadir.
- Along with her supporters, she took on the British and wrested control of Lucknow.
- Begum Hazrat Mahal often called meetings to encourage soldiers, asking them to be brave and fight for the cause.
- But she was forced into a retreat after the colonial rulers recaptured the area.

Velu Nachiyar -

- Many years before the revolt of 1857, Velu Nachiyar waged a war against the British and emerged victorious.
- Born in Ramanathapuram in 1780, she was married to the king of Sivagangai.
- After her husband was killed in battle with the East India Company, she entered the conflict and won with the support of neighbouring kings.
- She went on to produce the first human bomb as well as establish the first army of trained women soldiers in the late 1700s.
- Her army commander Kuyili is believed to have set herself ablaze and walked into a British ammunition dump.
- She was succeeded by her daughter in 1790 and died a few years later in 1796.

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