

Prelim Bits 26-11-2017

Salvator Mundi (Saviour of the World)

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• It is an ethereal portrait of Jesus Christ by Leonardo da Vinci, which dates to about 1500.

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• It is one of around 16 verified da Vinci originals in existence.

• It is the last privately owned Leonardo da Vinci painting and was put on sale recently.

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 Experts have had doubts about the authenticity as also the condition of the painting as t#he work has been marred by repeated repaintings.

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ASTROSAT

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- It is India's first dedicated multi wavelength space observatory.
- Most other scientific satellites are capable of observing only a narrow range of wavelength band. But ASTROSAT enables the simultaneous multiwavelength observations of various astronomical objects with a single satellite i.e it observes universe in the optical, Ultraviolet, low and high energy X-ray regions of the electromagnetic spectrum.
- Multi-wavelength observations of ASTROSAT can be further extended with co-ordinated observations using other spacecraft and ground based observations.

• The Cadmium-Zinc-Telluride Imager (CZTI) is an instrument to observe and

 $image\ hard\ X-rays\ in\ AstroSat.$

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 \bullet It has consistently been making important.

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 \bullet The latest discovery of it is a polarization analysis of the Crab nebula pulsar. $\ensuremath{\backslash n}$

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Dindigul Locks

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• The Dindigul region in Tamilnadu is known for well-crafted locks.

• There has been decline in the lock-making tradition in recent times.

• The reasons are—
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1. the refusal of artisans to adopt modern technology \n

 2 . the absence of documentation,

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3. research and development

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4. an unorganised workforce paid poor wages

5. disinterest among younger workers to learn the craft \n

- 6. the invasion of cheaper and lightweight locks, especially from China and \n
- 7. the higher cost of handcrafted locks. \n

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 \bullet The imposition of 18% Goods and Services Tax (GST) has also hiked the price of Dindigul locks.

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• Geographical Indication tag has been sought for Dindigul locks since 2013.

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Pre-Monsoon Dust

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• The aerosol burden over north India is 3 times more than the global mean value.

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- It has been increasing at about 3% per year for the past few decades.
- \bullet But the amount of dust aerosol during the pre-monsoon period has decreased by 10-20% during the period.
- \bullet Past studies have shown that whenever pre-monsoon dust aerosol is more over north Indian region, the early part of monsoon rainfall is higher. \n

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Water Bodies & Methane

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• Shallow lakes, ponds, rivers and wetlands are relevant in the context of climate change.

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- They are responsible for much of global greenhouse gas emissions.
- An important part of these emissions is caused by bubbles filled with methane gas that develop in the sediment at the bottom of these water bodies.

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- When the bubbles reach the surface, the gas enters the atmosphere.
- Nutrient-rich sediments produce more methane than nutrient-poor sediments.

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 One possibility for reducing methane production is therefore to make sure that sediments have fewer nutrients, which means using less fertiliser!

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