

Mercury released

Universal Music unveiled a previously unheard and unreleased song by the late Queen frontman Freddie Mercury. The record label announced the track, Time Waits for No One, on Thursday. It was originally recorded in 1986 for the album of the musical Time with musician Dave Clark, Al



Smartphone locking style can reveal user's age

Older smartphone users tend to rely more on their phones' auto lock feature compared to younger users, a study has found. Older users also preferred using PINs over fingerprints to unlock their phones. The finding was made by University of British Columbia scientists working on phone security. IANS



Bible belonging to Lincoln to go on display

In 1864, Abraham Lincoln received a gift of a Bible, at a time when the  $16^{th}$  U.S. President was turning increasingly to Scripture for personal strength. More than 150 years later, the Bible which was in the possession of a family friend — is set to go on display at the Lincoln Presidential Library. NY TIMES

# Himalayan glaciers are melting twice as fast since 2000: study

Cold war-era spy satellite images repurposed to study ice loss in 650 glaciers

SPECIAL CORRESPONDENT

Comparing data obtained by Cold War-era spy satellites with images from modern stereo satellites, scientists have shown that Himalayan glaciers have lost more than a quarter of their ice mass since 1975, with melting occurring twice as fast after the turn of the century as average temperatures rose.

In the 1970s, at the height of the Cold War, the U.S. had deployed spy satellites that orbited the globe and took thousands of photographs, using a telescopic camera system, for reconnaissance purposes. Film recovery capsules would be ejected from the KH-9 Hexagon military satellites and parachuted back to Earth over the Pacific Ocean.



At risk: The snow-covered peak of Mt. Everest. • REUTERS

More than four decades later, scientists are using those same images to show the devastating impact of a warming Earth on the Himalayan glaciers. The overlapping images, each covering 30,000 square kilometres with a ground resolution of six to nine metres, have been pieced together to form digital elevation models of the Himalayas of that era.

In an article published in

the Science Advances journal on Wednesday, J.M. Maurer and co-authors analysed four decades of ice loss for 650 of the largest glaciers across a 2,000 km transect across the Himalayas.

"Our observed annual mass losses suggest that of the total ice mass present in 1975, about 87% remained in 2000 and 72% remained in 2016," the study's authors wrote. "We find similar mass loss rates across subregions and a doubling of the average rate of loss during 2000-2016 relative to the 1975-2000 interval," they added.

**Rising temperature** The study goes on to assert that rising temperatures are responsible for the accelerating loss.

"This is consistent with the available multidecade weather station records scattered throughout HMA [High Mountain Asia, which includes all mountain ranges surrounding the Tibetan Plateau]," the authors wrote, noting an average increase of 1° Celsius since 2000. The study rules out other causes for glacier changes, such as the deposition of soot on snow and ice and changing precipitation patterns.

### Einstein's relativity paper gifted to Nobel museum

The document was written in November 1922

AGENCE FRANCE-PRESSE

The Nobel Museum in Stockholm has been gifted Albert Einstein's first paper published after he received the Nobel Prize in 1922 and discussing his then still controversial relativity theory.

Swedish businessman Per Taube bought the handwritten two-page document at an auction for 1.2 million krona (€110,000) in December last year. He has now made good on his promise to gift the manuscript to the Nobel Museum, which will put it on display in a glass frame later this year.

The paper, written in November 1922 while Einstein was attending conferences in south-east Asia, was published a month later by the Academy Prussian



Words of a genius: The rare document has been donated by a Swedish businessman to the Nobel Museum. • AFF

It also has handwritten editor's annotations by German physicist Max von Laue who won the Nobel Prize in 1914. Von Laue owned the manuscript until 1948 before it passed into the hands of private collectors.

Significantly, the document contains a modified version of the relativity theory and shows that Einstein was facing fierce resistance within the community. "This letter shows that

even though Albert Einstein had received the Nobel prize, his physics was very much part of the debate among scientists at that time and Albert Einstein himself was also part of this debate," said Gustav Kallstrand, senior curator at the Nobel Prize museum.

#### Scientists find earliest signs of Parkinson's in brain

Serotonin function serves as marker

AGENCE FRANCE-PRESSE

Scientists said on Thursday said they had found the earliest signs of Parkinson's disease in the brain years before patients showed any symptoms, a discovery that could eventually lead to better screening for at-risk

The disease is diagnosed by a build-up in the brain of a specific protein, a-synuclein, the cause of which is unclear. However some people are born with a genetic mutation that makes them almost certain to develop the disease at some stage in

Researchers from King's College London compared data from 14 individuals carrying the mutation with that of 65 non-genetic Parkinpatients and 25 son's healthy volunteers.

They found that changes in the serotonin system in the brains of Parkinson's sufferers started to malfunction well before other symptoms occurred.

"Serotonin function was an excellent marker for how advanced Parkinson's disease has become," said Heather Wilson, from the university's Institute of Psychiatry, Psychology and Neuroscience.

# First 'song' recorded from rare right whale

Scientists say the crooning could be the mating call of one of the most elusive marine mammals

REUTERS

For the first time, scientists have recorded singing by one of the rarest whales on Earth, and it just might be looking for a date.

The crooning comes from a possibly lovelorn North Pacific right whale and its song was documented by researchers in the Bering Sea off Alaska's coast, and announced on Wednesday by the National Oceanic and Atmospheric Administration.

The song may not be a greatest hit, but is classified by marine biologists as an underwater call using a distinct pattern of sounds. And it is the scientists' best guess



A North Pacific right whale. • MARINE MAMMAL COMMISSION

that this serenade of the seas is a mating call from a lonely aquatic mammal.

Scientists surveying endangered marine mammal populations first heard the

tune in 2010 but could not be sure what kind of whale was singing, said Jessica Crance, of NOAA's Alaska Fisheries Science Center.

At the time, the research-

fog and could not see the animal, she said. But scientists figured out it was indeed a right whale after analysis of a lot of collected acoustical data, followed by a specific sighting during a 2017 marine-mammal research cruise, Ms. Crance said.

ers were travelling in thick

"That year, we saw the whale that was singing."

The right whale's carolling is described in a study published in the current issue of the Journal of the Acoustical Society of America, and is the first confirmed song from any right whale

This history-making discovery sheds light on the behaviour of one of the planets most elusive marine animals, NOAA said.

While this is the first known tune, right whales are not mute. They are known to be chatty by making gunshot sounds. What made this newly-recorded noise a song was its repeated pattern, timing in between gunshots and the number of gunshots, Ms. Crance said.

The singing whale spotted in 2017 was a male, and is in the tiny population where dates are hard to find. There are only about 30 whales in this population and males outnumber females by a 2to-1 or 3-to-1 ratio, Ms. Crance said.

#### <sup>+</sup> Myanmar love poem saved by devotion of fans

It will remain in school textbooks

AGENCE FRANCE-PRESSE

A Myanmar love poem will remain on the national curriculum after the government's plans to scrap it over fears it promoted smoking sparked widespread public anger. Present of a Cheroot, composed by writer Mae Khwe more than 200 years ago, has long been a staple for Burmese teenagers in a nation where literature is highly revered.

The ode describes how the poet makes a homemade cheroot – a traditional kind of cigar - for her faraway lover by drying the "aromatic leaves" in her bed then trimming them with her teeth.

It was not the steamy content, however, that prompted the Education Ministry to withdraw the verses from

the curriculum in the conservative country. Rather, the government confirmed earlier this month that it feared it encouraged Class 8 students to smoke.

Myanmar has around 13.3

million smokers, a quarter of the population, according to the World Health Organisation. It estimates some 65,000 people a year die from tobacco use. But the decision prompted uproar in some quarters. Political commentator

Mg Mg Soe took to Facebook to brand the decision-makers "idiots" who "did not understand history".

This week the authorities reinstated the poem, albeit for Class 10 instead, on the grounds that 15 and 16-yearolds would be mature enough to handle the

#### Little steps



Staying supple: Jyoti Amge, who holds the record for the world's shortest woman, and yoga exponent Dhanshri Lekurwale practising in Nagpur ahead of the 5th International Day of Yoga. • PTI

#### Auction of royal objects from India sets a record

Gem-studded items sold for \$109 mn

An auction of roval Indian jewellery at Christie's here has raked in almost \$109 million, with a jade-hilted dagger of Mughal emperor Shah Jahan, a ceremonial sword of the Nizams of Hyderabad and a bejewelled medieval huqqa setting world records.

These objects, among a total of 400, went under the hammer at the "Maharajas and Mughal Magnificence" auction here on Wednesday.

It established "the highest total for any auction of Indian art and Mughal objects, and the second highest auction total for a private jewellery collection", Christie's said in a statement.

The objects on sale were from the Al Thani Collection of the Qatari royal family.



**Exquisite:** The Shah Jahan dagger. • CHRISTIE'S

The Shah Jahan dagger sold for a \$3,375,000 (₹23.4 crore), while the Nizams' sword sold for \$1,935,000 (₹13.4 crore). The gem-studded huqqa set sold for \$759,000 (₹5.27 crore).

### Japan's 'washi' paper torn by modern life

Despite its UNESCO Intangible Cultural Heritage tag, the artefact's market value is dwindling

AGENCE FRANCE-PRESSE

Once an indispensable part of daily life in Japan, ultrathin washi paper was used for everything from writing and painting to lampshades, umbrellas, and sliding doors, but demand has plunged as lifestyles have become more

westernised. Despite its 1,300-year history and UNESCO Intangible Cultural Heritage status, washi paper is struggling to attract consumers and the market value has dropped by more than 50% in the past two decades.

But at a small workshop in western Japan, Hiroyoshi Chinzei, a fourth-generation traditional paper maker, creates washi with a unique purpose that may help revive interest - both at home and abroad. His product, the



world's thinnest paper, has helped save historical documents at major museums and libraries – including the Louvre in Paris, the British Museum and Washington's 50-year-old. Library of Congress - from

"Washi paper is more flexfrom plants called kozo, or

ible and durable" than what Japanese refer to as "western into tiny pieces when it be-

The traditional handmade paper is manufactured

paper", which disintegrates comes very old, said the

mulberry, which has fibres that are much longer than materials used for paper in the west such as wood and

"Old Japanese books from the seventh or eighth century remain in good condition... thanks to the fibres of the kozo plants," said the washi maker at his small factory in Hidaka, a village 640 km southwest of Tokyo.

'Wings of a mayfly'

Mr. Chinzei's washi, a type called tengu-joshi paper also known as "the wings of a mayfly", is 0.02 mm thick and weighs 1.6 gm per square metre.

"It's a mesh-like paper mainly made with fibres... It's as thin as human skin," Mr. Chinzei said. This compared to a standard sheet of

about 0.09 millimetres thick and weighs 70 gm per square metre. Using both machines and hand-made techniques passed down for generations, the firm can create ultra-thin paper, which is also used by conservationists to restore and protect cultural objects.

One such conservationist, Takao Makino, carefully applies washi with a brush onto golden sticks representing the halo of a Buddhist statue estimated to be around 800 years old.

He used washi for the first time in 2007 to protect the surface of one of the two main statues at Tokyo's historic Sensoji Temple.

"The surface was damaged and peeled off. So we covered all of it (with washi) to contain the damage," the photocopy paper, which is 68-year-old said.

### WHO writes new prescription to prevent misuse of antibiotics

Guidelines specify which drugs must be sparingly used

BINDU SHAJAN PERAPPADAN NEW DELHI

Rx: Keep it simple. This is the World Health Organisation's (WHO) prescription to combat the growing menace of antibiotic abuse and burgeoning resistance world

In its latest advisory, WHO has suggested the adoption of 'Access, Watch and Reserve', an approach that specifies which antibiotics to use for the most common and serious infections, which ones ought to be available at all times in the healthcare system, and those that must be used sparingly, or reserved and

used only as a last resort. WHO estimates that more than 50% of antibiotics in



appropriately for treatment of viruses, when they only treat bacterial infections, or are the wrong choice of antibiotic (broader spectrum), thus contributing to the spread of antimicrobial resistance. The new campaign aims

to increase the proportion of global consumption of antibiotics in the 'Access' group to at least 60%, and to reduce use of the antibiotics

Using 'Access' antibiotics lowers the risk of resistance because they are 'narrowspectrum' antibiotics (that target a specific microorganism rather than several). They are also less costly because they are available in generic formulations. In India, the Health Minis-

most at risk of resistance.

try has made it mandatory to display a 5mm-thick red vertical band on the packaging of prescription-only drugs to sensitise people to be cautious while buying these medicines that are widely sold without prescriptions.

WHO has now urged all countries to adopt the Access, Watch and Reserve guidelines to reduce the spread of antimicrobial resistance, adverse events and costs.