ARBiT
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Celebrating National Sandwich Day: A Tribute to Flavour and Creativity

National Sandwich Day, celebrated on November 3, honours one of the world's most versatile and beloved foods: the sandwich. From classic peanut butter and jelly to gourmet creations with artisanal breads, fresh vegetables, and savory fillings, sandwiches are a culinary staple that caters to all tastes and occasions. The day encourages people to get creative, try new recipes, or simply enjoy their favourite sandwich with family and friends. Beyond being convenient and delicious, sandwiches reflect cultural diversity and innovation in the culinary world. National Sandwich Day is a fun reminder to celebrate flavour, variety, and the joy of a well-made meal.

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MONDAY
03 November 2025
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#EARTH

Beyond EPICA

Indian Scientists help unearth 1.2-Million-Year-Old Ice Core in historic Antarctic Drill

In a landmark achievement for climate science, Indian research scientists, working alongside an international team, have successfully drilled nearly 2 miles (2,800 meters) beneath the Antarctic ice sheet to extract an ice core, estimated to be 1.2 million years old, one of the oldest ever recovered. The project, part of the ambitious *Beyond EPICA* (European Project for Ice Coring in Antarctica) mission, is based at Little Dome C, one of the coldest and most remote locations on Earth, approximately 34 kilometers from Concordia Research Station.

A Window Into Earth's Distant Past

The core contains ancient air bubbles and climate data from a time before modern humans existed, offering scientists a chance to study atmospheric conditions long before the current interglacial era.

"This ice core is a frozen archive of our planet's climate history," said Dr. Rajeev Sharma, a senior glaciologist with India's National Centre for Polar and Ocean Research (NCPOR). "With it, we can look back over a million years to understand how natural changes in greenhouse gas levels influenced Earth's climate cycles."

A Feat of Engineering and Endurance

The drilling, which began several years ago, was conducted in extreme conditions, with average summer temperatures at the site hovering around -35°C. Using specialized drills, the team extracted cylindrical ice segments approximately 10 centimeters in diameter and up to 4.5 meters long. The work was painstaking and precise: the drill passed through more than 2,800 meters of compacted ice, eventually reaching ice that had formed over a million years ago, well before the last major transition in Earth's glacial rhythms.

Scientific Goldmine

What makes this core extraordinary is its age. Previously, the oldest continuous ice core record dated back around 800,000 years. This new sample extends the climate record by at least 400,000 years, deep into the Mid-Pleistocene Transition, a period that saw the frequency of ice ages shift from every 41,000 years to roughly every 100,000 years. "This is critical for understanding how Earth's climate system works," said project co-leader Dr. Carlo Barbante of Italy's Institute of Polar Sciences. "The ice core can reveal how CO2 levels behaved before and after this transition, insight that's crucial in predicting future climate scenarios."

India's Role in Antarctic Research

Indian scientists from NCPOR played a key role in logistics, drilling support, and on-site scientific operations. Their participation marks a significant milestone in India's expanding role in polar research and global climate studies. "This achievement showcases India's scientific capability and commitment to global climate science," said Dr. Anita Desai, Director of NCPOR. "Our collaboration in Antarctica will continue to grow in importance as the world faces unprecedented environmental changes."

What's Next?

The extracted ice core is being preserved under ultra-cold conditions and will be transported to Europe aboard the Italian icebreaker Laura Bassi. There, scientists will conduct detailed chemical and isotopic analysis to map changes in greenhouse gases, dust, and temperature over the last 1.2 million years.

Experts say results from the study could take years but may offer crucial insights into the natural rhythms of Earth's climate, and how human activity may be disrupting them.

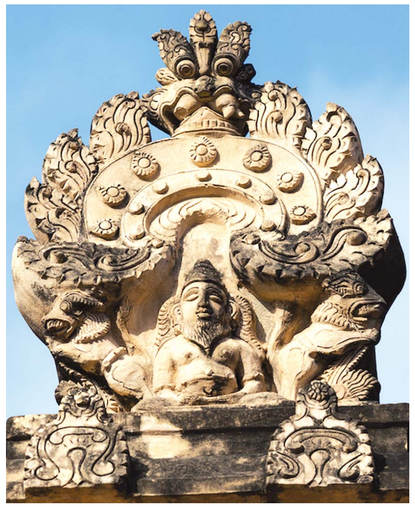
Why It Matters

With the planet facing a climate crisis, this discovery provides a rare opportunity to learn from Earth's deep past. By understanding how ancient climates evolved without human interference, scientists hope to better predict what lies ahead for our warming world.

Detailing Made Them Spectacular

The Gangaikonda Cholapuram temple (Jayankondam, Tamil Nadu, India) also known as the great temple of Brihadeeswarar is next in importance only to the Brihadisvara temple at Thanjavur.

The pyramidal roof was displayed with an increasingly aberrant appearance. At the same time, the roof grows because an increasing number of 'levels' were interspersed between the body of the building and its crowning. With the passing of time at the beginning of the 11th century, this type was amplified until forming a high pyramid: the most beautiful example is seen in the vimana of the Brihadisvara temple (Thanjavur) where the crowning piece of the pyramid, in the form of a polygonal dome, rose up to 60 m from the patio floor. In this temple, the height of the sanctuary was doubled and the 'levels' of the roof became 13.



Cola dynasty Kudu.

Around the walls of the sanctum of the Gangaikonda Cholapuram temple there are about 50 sculptural reliefs of which the image representing Shiva garlanding a devotee is one of the most prominent.

The Koranganatha Temple (Srinivasanallur, Tiruchirappalli,Tamil Nadu, India) dedicated to the god Ranganatha.

● Anjali Kothari

At the same time as the temples with shikhara and the architectural types developed in the North of India, in the South, a series of temples with pyramidal roof were developed whose process of evolution is analogous to that of the temples with a curvilinear roof but which had even more numerous variants. We must look for the prototypes of these temples with pyramidal roof, both in older representations (i.e.: the fresco of the cave No. 1 of Ajanta from the 6th century; the scene from the 'Descent of the Ganges' from Mahibalipuram in which an ascetic meditates next to a small temple from the 7th century), and in the sanctuaries carved in a rocky bank of Mahabalipuram: the temples known as the Dharmaraja Ratha and the Arjuna and Draupadi Rathas (7th century). With the passing of centuries, architects and artists progressively developed the great artistic achievements of the medieval era following these archetypes.

The essential features

The better defined and more frequent type of temple had, as essential features, a square floor plan whose exterior walls were decorated with built-in pillars and a pyramidal roof whose steps simulated floors or levels, each composed of a cornice that supported the subsequent reduced levels. These reduced levels had a square floor plan if they were located in the angles and a rounded floor plan in the other cases. A crowning with a square or polygonal floor plan topped the pyramid. This pattern was strictly followed by the architects. After the monolithic temples of Mahabalipuram of the 7th century, one of the oldest temples of this type built with blocks of sandstone was erected in the same place: the Shore Temple, from the 8th century.

This temple already had the main elements that will be employed in the course of the following centuries and constitutes the origin of the great temples that will be built or transformed until the contemporary era. The Shore Temple includes the three essential elements arranged on the same axis and enclosed in a rectangular enclosure. In this temple, the sanctuary (vimana) is covered by a stepped pyramidal roof clearly higher than those of the other buildings of the complex, even taller than the tall pavilions placed over the doors of the enclosure. Approximately until the 11th century, the reduction in the number of the constructions that embellished each 'floor/level' of the roof of the sanctuary were arranged regularly over each other in decreasing size all the way to the top. Each one of them reproduced, under a simplified form, the monumental constructions with their built-in pillars and their roof with windows following the style of the Indian arch (kudu).

Kudu appeared more as a pediment

As the reduction of architectural elements evolved, the kudu resembled more the appearance of a pediment. The kudu located at the center of each 'level' was generally larger than the others. Overlapping vertically from floor to floor, these kudu created a point of interest on each side of the roof, giving it a kind of ledge where the large kudu-like-pediments of the central structure of the pyramidal roof were displayed with an increasingly aberrant appearance. At the same time, the roof grows because an increasing number of 'levels' were interspersed between the body of the building and its crowning. With the passing of time at the beginning of the 11th century, this type was amplified until forming a high pyramid: the most beautiful example is seen in the vimana of the Brihadisvara temple (Thanjavur) where the crowning piece of the pyramid, in the form of a polygonal dome, rose up to 60 m from the patio floor. In this temple, the height of the sanctuary was doubled and the 'levels' of the roof became 13.

The Shore Temple (built between 700–728 AD, Mahabalipuram, Kanchipuram District, India) whose name refers to its location overlooking the shore of the Bay of Bengal.

#KUDU ARCHITECTURE

gangaikonda-cholapuram temple nandi.

The Kanchi Kailasanathar temple is the oldest structure in Kanchipuram (Tamil Nadu, India). The temple is dedicated to the Lord Shiva and was built from 685-705 AD. The temple contains 58 small shrines which are dedicated to various forms of Shiva. Following this general scheme, the architects executed innumerable variants.

Temple in Kanchipuram can be considered as prototypes. Each one of them was developed at the center of a rectangular enclosure whose access door is facing East. In Kanchipuram, this gate (gopuram) was one of the first examples that appeared crowned by a semi-cylinder bound at each end by an Indian arch (kudu): this element resembles the shape of the city gates portrayed in Buddhist representations as old as the 1st century before the Christian era and that here was applied to the Hindu religious architecture. This style of building from the 8th century, still of modest dimensions, became taller following the same law that governed the progressive elevation of the pyramidal roof of the vimana. Once passing through this door (which was in fact an entrance pavilion opened into the body of the enclosure), we find in the first place a hypostyle pavilion with a flat roof: it is the mandapa or mandapam. Behind it at a short distance stands the vimana with its pyramidal roof topped by a false polygonal dome.

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Following this general scheme, the architects executed innumerable variants. From the beginning of the 10th century in the southeast, a better defined style was developed under the Chola sovereigns that continued approximately until the middle of the 12th century. Later, it developed into a more ornate style which evolved in the same region under the Pandyan dynasty until the middle of the 14th century.

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Change of style

During the 10th century, the temples were not numerous nor very vast. Carefully built with well-arranged stone blocks, they continued the previous style of the Chalukya dynasty in their essential characteristics. A good example of the 10th century Chola style is the Koranganatha Temple in Srinivasanallur (Tiruchirappalli), in which was used a new architectural order, typical of the Chola illustrated mainly by the pillars and their capitals as well as the presence of niches on the exterior walls of the vimana, each sheltering a divine character carved in high relief.

With the consolidation of their power during the first quarter of the 11th century, the Chola undertook more monumental constructions whose two most beautiful examples were the Temple of Brihadishvara dedicated to Shiva in Thanjavur (1011), whose vimana was already mentioned and the Gangaikonda Cholapuram temples located in Jayankondam (1025 approximately). In these two temples, the Chola style reached its maturity and unfolded with surprising security attesting to the intensity of its faith and the virtuosity of the architects and sculptors of the time. In Thanjavur, the site is vast. Its layout includes (in linear order) a door, a pavilion that houses a statue of the Nandi bull (the sacred vehicle, vahana, of Shiva), a hypostyle mandapa, a large meeting room and, finally, the vimana itself. The very beautiful sculpted decoration is used with care and the impression of classic majesty emerges from the whole complex.

The Gangaikonda Cholapuram temple (Jayankondam, Tamil Nadu, India), also known as the great temple of Brihadeeswara, is next in importance only to the Brihadisvara temple at Thanjavur. The temple was completed in 1035 AD and is dedicated to Shiva.

In Gangaikonda Cholapuram, the whole complex is more imposing: the surface of the patio surrounded by walls is larger and contains on an east-west axis a hypostyle hall with 150 pillars that prefigures the mandapa 'of a thousand pillars' that will constitute in a later period a constant element in the composition of the great temples. This mandapa is linked to the vimana by a vestibule perpendicular to the main axis, whose two extremes to the North and to the South are provided with doors that are accessed by a steep staircase that climbs the high molded platform forming the base of the temple complex.

The sanctuary itself, with a dark and mysterious interior, is crowned by a pyramidal roof lower than that of Thanjavur (45.60 m), imposing although more robust and with less rigor of style, characterized by the introduction of horizontal curved lines into the roof that announced a 'mixed type' roof. The sculpture in high relief is perhaps more sensitive here than in Thanjavur and it is worth highlighting the presence next to the southern entrance of the vestibule of a panel in high relief, representing Shiva crowning with a flower garland King Rajendra Chola I (1018-1033), who had 'gone to the Ganges,' it is one of the few examples of royal portraiture in Indian medieval sculpture.

Around the walls of the sanctum of the Gangaikonda Cholapuram temple there are about 50 sculptural reliefs of which the image representing Shiva garlanding a devotee is one of the most prominent. In this relief, Shiva, with Parvati besides him, hands down a garland of flowers to mark his victory to a diminutive seated figure of the king Rajendra Chola I.

After its peak, the power of the Chola declined and the big religious construction impulse ceased. The Pandyan, in turn, dominated southern India and, although protectors of the arts, they were not properly emeritus builders. In fact, it can be observed in this period (12th century - mid-14th century), a tendency to expand more and more the area occupied by the temples while perpetuating the characteristics of the Chola style but without providing any innovation and only over decoration: the different buildings were conceived more with a utilitarian and functional purpose than as artistic creations, as was the case in the 11th century.

In the courtyard of the Gangaikonda Cholapuram temple, there is an imposing image of a seated Nandi bull, which is aligned axially 200 m facing the temple's sanctum. Vahana, from the Sanskrit, meaning 'that which carries, that which pulls,' the term denotes the being, typically an animal or mythical entity, a particular Hindu deity is said to use as a vehicle. In this sense, the vahana is often called the deity's 'mount.' Deities are often depicted riding (or simply mounted upon) the vahana. Other times, the vahana is depicted at the deity's side or symbolically represented as a divine attribute.

rajeshsharma1049@gmail.com

The Kanchi Kailasanathar temple is the oldest structure in Kanchipuram (Tamil Nadu, India).

#NATURE

Wild Bananas of Medog

These wild bananas are not the cultivated, sweet varieties most people are familiar with. They belong to ancient species of the Musa genus

Tucked away in the lush, isolated valleys of Medog County in southeastern Tibet lies a surprising and rare botanical find: wild bananas. In a region known more for its soaring mountains and harsh climates, the presence of banana plants seems almost unbelievable. However, Medog is unique. Thanks to its relatively warm, humid climate and low elevation compared to the Tibetan Plateau, it is home to a rich variety of subtropical flora, including wild banana species that have thrived there for generations.

These wild bananas are not the cultivated, sweet varieties most people are familiar with. They belong to ancient species of the Musa genus, often growing freely in the forests surrounding Medog's rivers and trails. Their fruit appears similar to that of domesticated bananas, but inside lies the key difference: a dense, fibrous pulp filled with large, hard seeds.

The Mystery of Inedibility

At first glance, the fruit of the wild banana may seem appealing, especially to travelers unfamiliar with local plant life. However, these bananas are often deemed inedible in their natural state. The flesh is dry, starchy, and sometimes bitter. Unlike commercial bananas, which are soft and sweet due to centuries of selective breeding, wild bananas retain many characteristics of their ancient ancestors, including a high seed-to-pulp ratio that makes eating them raw not only unpleasant but often impractical.

Despite this, these bananas are not entirely useless. While the fruit may be inedible, the seeds within them are known to be edible under certain conditions. Local communities and indigenous groups in and around Medog have learned how to prepare and use the seeds through methods passed down over generations, transforming an otherwise overlooked forest fruit into a seasonal food source.

Understanding the Seeds

The seeds of wild bananas are often large, black or brown, and incredibly hard, more like pebbles than what one might think of as edible seeds. But within these stone-like shells lies valuable nutritional content, including plant proteins and essential fats. In areas where access to cultivated food crops is limited, wild plants such as these play an important role in local diets, especially as supplemental food sources during the changing seasons. Edibility, however, does not mean the seeds can be eaten raw. Much like other wild plant seeds and nuts, they require processing to make them digestible and safe. The seeds are rarely consumed on their own; instead, they are part of a broader knowledge system of foraging, processing, and cooking that helps unlock their hidden benefits.

Traditional Preparation Techniques

Local knowledge in Medog, especially among communities like the Lhoba people, includes a range of techniques for preparing wild banana seeds. While detailed written records are rare, especially in English sources, ethnobotanical surveys and oral histories reveal some common steps.

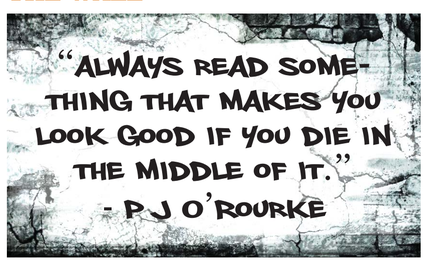
Typically, when the wild bananas are harvested, the seeds are extracted from the fruit and thoroughly cleaned. The raw seeds are extremely hard and difficult to chew, so, they are often roasted over fire or boiled for extended periods to soften the outer shell and reduce any naturally occurring bitterness. In some cases, the seeds are crushed or ground using traditional stone tools into a coarse paste or powder, which is then mixed with other foods such as root vegetables, wild grains, or herbs.

Cooking the seeds not only makes them easier to digest but may also neutralize certain compounds that are unpalatable or mildly toxic when raw. The resulting mixture can be eaten as a type of gruel, porridge, or side dish. In harsher seasons, such preparations are especially valuable, offering a source of sustenance when other food supplies are low.

Cultural and Environmental Significance

The use of wild banana seeds in Medog is not just a matter of survival or sustenance. It reflects a deep connection between local people and their environment, a traditional knowledge system in which even the most unlikely plants are recognized for their potential value. In recent years, researchers have begun documenting this knowledge more systematically, aiming to preserve it as younger generations move away from traditional lifestyles. Moreover, the wild bananas of Medog are a biological treasure. They represent ancient genetic diversity, untouched by human domestication. Botanists studying these plants believe they could hold the key to improving banana crops worldwide, especially in terms of disease resistance and climate resilience.

THE WALL



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