ARBiT
it happens here...

Christmas Bird Count Week: Celebrating Birds and Biodiversity

Christmas Bird Count Week, observed annually from December 14 to January 5, brings together bird enthusiasts, researchers, and communities to record bird populations across regions. Launched over a century ago, this citizen-science initiative helps track trends in bird numbers, migration patterns, and ecosystem health. Participants, from amateur birdwatchers to experts, explore local parks, forests, and wetlands, noting every species they encounter. Beyond data collection, the week fosters environmental awareness, promoting conservation and appreciation of biodiversity. It's a celebration of nature, scientific collaboration, and the joy of connecting with the world of birds during the festive season.

राष्ट्रदूत
THURSDAY
25 December 2025
A-B

#POMATO

Potatoes And Tomatoes

The Plant That Grows Both Tomatoes and Potatoes

Imagine plucking fresh tomatoes off a leafy vine, and then digging beneath the same plant to harvest potatoes. It sounds like science fiction, but it's real. Known as the Pomato or TomTato, this unique plant grows tomatoes above ground and potatoes below, combining two crops into one. This agricultural marvel could redefine how we grow food, especially in a world facing land shortages, climate change, and a growing population.

How Does It Work?

The Pomato isn't genetically engineered. Instead, it's created using a traditional technique called grafting, where the stem of one plant is physically joined to the root system of another. In this case:

- Tomato (Solanum lycopersicum) is grafted onto
- Potato (Solanum tuberosum)

Since both plants belong to the nightshade family (Solanaceae), they are biologically compatible. The result is a hybrid plant that produces cherry tomatoes on its branches while growing white potatoes in the soil below.

This is not genetic modification. No DNA is altered. It's a purely horticultural technique, perfected through years of experimentation.

A Space-Saving Solution for the Future

The Pomato has massive potential for the future of urban and sustainable farming. Here's why!

Space Efficiency: Perfect for cities and small gardens, grow two crops in the space of one.

Sustainability: Reduces the need for multiple fertilizers, water sources, and plots.

Increased Yields: Doubles productivity without doubling land use.

As land becomes scarcer and urban populations grow, innovations like this could help make urban agriculture more viable.

Commercial Breakthrough: The TomTato

In 2013, a British gardening company called Thompson & Morgan introduced the commercial version of the Pomato, naming it the TomTato. The plant could be grown in a pot or garden and reportedly produced up to 500 sweet cherry tomatoes and several kilograms of white potatoes in a single growing season.

Marketed to both home gardeners and eco-conscious consumers, the TomTato drew worldwide attention and curiosity. It became a symbol of what hybrid horticulture could achieve.

Not Without Challenges

Despite the hype, growing a Pomato is not without its limitations.

Grafting Skill: Creating a successful graft requires precision and practice.

Short Life Span: Like many grafted plants, Pomatos typically last only one growing season.

Crop Timing: Tomatoes and potatoes mature at different rates, so coordinating harvests can be tricky.

Still, the benefits are compelling, especially in educational settings, home gardens, and small-scale sustainable farming systems.

Blurring the Line Between Science and Nature

The Pomato is more than just a clever plant. It represents a convergence of traditional agriculture and modern innovation, proof that we don't always need high-tech genetic engineering to solve food challenges. Sometimes, nature's own toolkit, used creatively, is enough.

By challenging our idea of what a single plant can do, the Pomato invites us to rethink how we grow food, how we use space, and how much more potential lies in the natural synergies of plant life.

Why Does Surya Wear High Boots?

A bronze statue of Surya from the Kushan period at the Government Museum in Mathura.

Referring to the Bodh Gaya image as well as contemporaneous ones at Khandagiri (Odisha) and Lala Bhagat (Uttar Pradesh), Frenger observes that "all the insignia of an ancient Indian ruler including a large parasol above his head, an opulent turban, heavy ear-plugs and necklace…His upper body is bare, which is in keeping with the dress traditions of the subcontinent." From this description, we can reasonably surmise that the sun god's obscured choice of footwear was probably in keeping with the fashion trends of the 100s BCE (possibly similar to padukas or perhaps even barefoot).

A statue of Surya at the Government Museum in Mathura.

● Kshema Jatuhkarna

It was the boots that intrigued me. Meandering through the Government Museum in Mathura in sandals befitting the hot summer afternoon, I was almost irrationally bothered by the sight of so much close-toed footwear on the sculptures of the Hindu sun god, Surya.

In one bronze rendering, a nimbate Surya sits between two hierarchically-scaled little horses, a dagger between his booted feet, in another sandstone composition, he stands holding a lotus in each hand, flanked by his attendants, and in yet another stone tableau, he appears to rest on his haunches as he is chauffeured in a seven-steed chariot. Notwithstanding the range of his poses, whether in the early centuries of the Common Era or the tenth, Surya was always shod.

In the Brahmanic pantheon of the first millennium CE, Surya is the only deity who wears shoes. As art historian Pratapaditya Pal writes in the first volume of his *Indian Sculpture: Circa 500 B.C.-A.D. 700* (1986), Surya is "…a regal figure like Vishnu but usually with two arms. The lotus is his distinctive emblem, which he holds with both hands. He is further distinguished only in northern India by his jacket or coat of mail, trousers and boots, generally the attire of the inhabitants of northwestern India and central Asia."

Why would a subtropical solar deity be fitted with high boots suited for cold steppes rather than hot plains? And what meaning does the incongruous ensemble impart to the depiction of this specific god?

Getting a makeover

There was a time when Surya dressed for the weather.

Originating as a divine character in one of the earliest hymns of the Rig Veda, he seems to have made his full-fledged visual debut almost a thousand years later. In the essay *Greek Helios or Indian Surya: The Spread of the Sun-God Imagery from India to Gandhara*, historian and numismatist Osmund Bopearachchi points to Surya's appearance on the railing of the Mahabodhi temple in Gaya in the 2nd century BCE and at the Bhaja Vihara caves in the 1st century BCE as being 'among the earliest representation of Surya found in South Asia.' In these Sunga period incarnations, Surya rides a chariot flanked by his two wives, Usa and Pratyusa, vanquishing darkness in the former case with the support of his consorts' archery and, in the latter, by trampling it (manifested as demons) underhoof. The human feet are not visible, shielded by the frontality of the composition and thus the chariot's bow. But the accessories clue us into their likely status, as historian Marion Frenger decodes in her essay *The Sun in Stone-Early Anthropomorphic Imagery of Surya in North India* (2020).

Referring to the Bodh Gaya image as well as contemporaneous ones at Khandagiri (Odisha) and Lala Bhagat (Uttar Pradesh), Frenger observes that "all the insignia of an ancient Indian ruler including a large parasol above his head, an opulent turban, heavy ear-plugs and necklace…His upper body is bare, which is in keeping with the dress traditions of the subcontinent." From this description, we can reasonably surmise that the sun god's obscured choice of footwear was probably in keeping with the fashion trends of the 100s BCE (possibly similar to padukas or perhaps even barefoot).

So, how or why did Surya undergo a makeover over the next few centuries?

One broad context for bundling up Surya involved the syncretism of his mythography. Commenting on the lack of inscriptions on representations before 500 CE, Frenger points out that "it is not even known if they were seen as images of Surya, as the Iranian sun god named Mithra/ Miro, as the Greek Helios or maybe the most probable supposition, as all three depending on the cultural background and contextual understanding of the individual viewer."

Exemplifying this point is the fact that even in the earliest known iconography, it is not the Vedic rath of seven horses riding which the sun dawns, but the Hellenistic four-horsed quadriga. Frenger attributes this hybridity to the Buddhist nature of sites such as Bodh Gaya, since the Vedic articulation of the deity would have been far less important than accentuating his Buddha-like regality, an approach allowing inspiration from iconographic schemes of other solar gods, both proximate and distant.

A headless statue of Emperor Kanishka at the Government Museum in Mathura.

#ART WORLD

(Left) A statue of Surya with attendants at the National Museum. (Right) An-11th century sculpture of Surya with the eleven other Adityas.

> In a 1999 paper titled *Solar Iconography of Mathura*, scholar Suresh Pandey inventoried the Surya figures held in that city's Government Museum. Noting that ancient Mathura was the capital of the Kushan Empire, Pandey asserts that "the Iranian form of Sun-cult was given official recognition and the Sun-image with Iranian features like Udichya-vesha, Abhanga upanat-pinaddha, etc… The iconography of the Sun at Mathura during this period is of obvious Scythian influence and monastic boots as well as tailored coat with sleeves…"

It was the induction of Surya into the Buddhist religio-cultural sphere during this time that eventually led to his transformed aspect. In the book *Images of Mithra*, its five authors (Philippa Adrych, Robert Bracey, Dominic Daglish, Stefanie Lenk and Rachel Wood) note, "In the early first millennium, there were strong affinities between Miiro and Surya. Some texts include 'Mitra' as one of the names of Surya, and describe him as driving a seven-horse chariot. One text, the *Brhatsamita Surya*, prescribes that Surya should appear without multiplication of limbs and dressed in 'northern' garb…a decorated tunic and calf-high boots."

Eclecticism of faith

The footwear that caught my eye in Mathura has finally surfaced in my research. By the 2nd century CE, Surya was taking his style cues from a certain northerly people, widely known as the Kushans. Descendents of Yuezhi nomads from what is now the China-Mongolia border area of the Eurasian Steppe, the Kushan emperors ruled over one of the largest, wealthiest and most religiously diverse territories in the ancient world. Over a 500-year period straddling the turn of the 1st millennium CE, they governed from the present-day eastern borderlands of Iran to Patna. The most famous member of the dynasty, Kanishka I, whose statue was the purpose of my Mathura visit, is perhaps known best for his patronage of Buddhism. At the same time, he protected the practice of other belief systems in his realm, including the Vedic, Greek and Zoroastrian ones, during his 23-year reign, sometime between 78 and 144 CE. This eclecticism of faith prevailing in the Kushan Empire became apparent too in the sacred art which flourished in it.

In a 1999 paper titled *Solar Iconography of Mathura*, scholar Suresh Pandey inventoried the Surya figures held in that city's Government Museum. Noting that ancient Mathura was the capital of the Kushan Empire, Pandey asserts that "the Iranian form of Sun-cult was given official recognition and the Sun-image with Iranian features like Udichya-vesha, Abhanga upanat-pinaddha, etc…The iconography of the Sun at Mathura during this period is of obvious Scythian influence and monastic boots as well as tailored coat with sleeves…." While an indigenous version of the sun god continued to be privately worshipped, the Iranianised solar deity was the object of public worship supported by the Kushan state, an incarnation of the Central Asian culture itself.

By donning their attire, the summer Surya radiating unto the Doab had transformed into a representative of the Bactrian winter. But what was the reason for the sun god specifically to have become the locus of transfer of symbolic power?

The concept of solar kingship was old and ubiquitous in the realms of Asia and Europe, with monarchs up to the early modern period drawing on the metaphorical plenitude of the sun to emphasise their sovereignty. In his analysis of solar mythology from the Indo-Iranian world to the Greco-Roman one through the figure of Mithras, historian David H Sick interprets the sun god genre along the Silk Road as 'the enforcer of contracts and the guardian of herds.' Surya's own name, according to Sick, is etymologically linked to the Proto-Indo-European term for sun, allowing these layers of Eurasian meanings to settle upon him, like the mantle on Emperor Kanishka's headless statue inaugurating Mathura museum's main gallery. On closer inspection, the striations on his boots, suggestive of cold-proof padding, resemble the ones worn by a number of resident Suryas. Gesturing towards the similarities in costume and a deep squatting figuration denoting both king and god (different from Kanishka's lifesize statue type), art historian John M Rosenfeld, in his definitive *The Dynastic Art of the Kushans* (1967), writes of the Kushans' solar symbolism: "Some early images of Surya are so similar to Kushan royal portraits that it is possible to confuse one with the other."

Visual update

Whilst acknowledging the link between Surya and the Kushan royals, Rosenfeld did not think there was enough information to establish a direct investiture of political power from the former to the latter. Conversely, aligned with scholars like Sick, Frenger presents the homonymy of the Sanskrit word *raj* as both 'to rule' and 'to shine' as another possible explanation for why the sun god was an ideal surrogate for the king. Tracking the iconographic correspondences between the ruler and the light-giver from the Sunga period to the Kushan era, she sees the wardrobe change from bare torso to embroidered tunic as 'reflecting the contemporary apparel of the ruler.'

According to Frenger, this link is further corroborated by the detailed updating of visual elements into the representation of a pre-existing deity: "This remarkable exactitude with which Surya images incorporated changes in the appearance of contemporary rulers was continued for several centuries. It shows that the relation between the sun god and the ruler was not the repetition of a once established iconographical convention but a 'living' feature. Artists and viewers alike obviously understood the reference to the ruler as an essential part of the sun image." A later example supporting this correspondence is how in the era following the Kushans' Hindu successors, the Guptas, Surya starts riding the seven-horsed Vedic rath.

As I make my way out of the Mathura museum, I stand before Emperor Kanishka's massive statue, admiring his boots one last time. Through his glass case, I glimpse the smaller figures whose feet I have spent a whole afternoon scrutinising. On an absurd, anachronistic tangent, I am reminded of the famous Shawshank Redemption scene: "I mean, seriously, how often do you look at a man's shoes?"

Clearly, as it turns out, far less often than a god's.

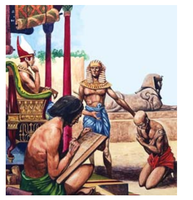
rajeshsharma1049@gmail.com

A sculpture of Surya at the Government Museum in Mathura.

#LAWED

Strangest Laws in History That Actually Existed

But here's the strange part: it wasn't just about lying to others. Lying to oneself was also illegal



Throughout history, laws have often reflected the values, customs, and quirks of the societies that created them. While many laws make perfect sense, protecting property, ensuring safety, and maintaining order, others seem downright bizarre, outlandish, or even humorous by modern standards. From ancient civilizations to more recent times, here are some of the strangest laws that were once enforced.

1. Ancient Egypt : Laws Against Lying, Even to Yourself

In ancient Egypt, the concept of truth was not just a moral value, it was enshrined in the law. The Egyptians believed in the goddess Maat, who personified truth, justice, and cosmic order. Maat's principles were so important that they became part of the legal system, and lying was considered a serious offense.

But here's the strange part: it wasn't just about lying to others. Lying to oneself was also illegal. Ancient Egyptians were expected to uphold truth not just in their dealings with others but also in their self-awareness and personal conduct. This idea extended beyond verbal lies; individuals were expected to align their actions, thoughts, and self-concept with the truth.

If someone was caught lying, especially in court or during transactions, they could face severe punishments, including loss of property or even execution. The importance of truth was central to Egyptian society, and this law reflects the degree to which they viewed personal integrity and social harmony as inseparable.

2. 13th Century France: Animals Could Be Put on Trial

In medieval France, the law didn't just apply to humans, it extended to animals as well. In the 13th century, it was common for animals that caused harm to humans or property to be put on trial in a court of law. This practice was based on the belief that animals were capable of criminal intent and should be held accountable for their actions.

Some of the most famous cases involved pigs, which were often tried for the murder of children. The animals were dressed in human clothes, given a defense lawyer, and sometimes even sentenced to death by hanging or burning. In one famous case in 1386, a pig was put on trial for killing a child and was sentenced to be executed by hanging.

The trials could be incredibly elaborate, with the animals being represented in court and sometimes even 'defending' themselves. This bizarre legal practice eventually faded out as the understanding of law and morality evolved, but it remains one of the strangest chapters in medieval justice.

3. Singapore: Chewing Gum Banned by Law

In modern times, few laws are as well-known or as puzzling as Singapore's ban on chewing gum. Since 1992, chewing gum has been illegal in Singapore, with very few exceptions. The law was enacted primarily to maintain the cleanliness of public spaces and prevent gum from being improperly disposed of, which was causing major issues for the country's public transport system and urban cleanliness.

The law prohibits the sale, import, or possession of chewing gum. However, in 2004, the law was slightly relaxed to allow the sale of chewing gum for therapeutic purposes, such as nicotine gum or gum used to prevent tooth decay, but only with a doctor's prescription.

While the law may seem extreme, it's a product of Singapore's strict approach to public order and cleanliness. The country is known for its highly regulated and orderly society, with penalties for everything from littering to jaywalking. The chewing gum ban is a particularly strange example of how a society can go to great lengths to preserve public cleanliness and order.

4. Ancient Sparta: Cowardice Was a Legal Offense

In Ancient Sparta, the law was designed to promote strength, discipline, and military prowess, and one of the most shocking laws of this warrior society was that cowardice was a punishable crime. Spartan society valued bravery above all else, especially in battle. Fear or failure to fight in battle was not just seen as dishonourable, it was considered a direct affront to the very fabric of Spartan identity.

Cowards could be publicly shamed, ostracized, and sometimes even executed. Spartans were expected to show no fear in the face of battle, and their commitment to warfare was absolute. For men who did not fulfill this expectation, there were severe consequences. Even Spartan children were raised to value courage, as their education and training were focused on preparing them to be warriors. In times of war, the Spartan leaders would even keep an eye on soldiers who might be considered to have fled or failed to live up to expectations of courage. Cowardice, or even perceived cowardice, was treated as a legal and social transgression.

Conclusion: Laws That Reflect the Times

From laws that punished lies, even to oneself, to those that put animals on trial, history is filled with strange and often incomprehensible legal systems. These bizarre laws give us a glimpse into how different cultures and societies tried to maintain order, uphold moral codes, and protect their way of life. Some laws may seem absurd today, but they were once taken very seriously by the people who lived under them.

THE WALL

BABY BLUES

By Rick Kirkman & Jerry Scott

ZITS

By Jerry Scott & Jim Borgman