ARBiT
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World Bee Day: Celebrating Nature's Tiny Pollinators

World Bee Day honours the vital role bees and other pollinators play in sustaining ecosystems and global food security. Observed every year on May 20, the day raises awareness about the threats bees face from climate change, habitat loss, and pesticide use. These small insects are responsible for pollinating a large share of the world's crops, making them essential to agriculture and biodiversity. The occasion encourages people to plant bee-friendly flowers, reduce chemical use, and support local beekeepers. Protecting bees means protecting the balance of nature and ensuring a sustainable future for generations to come.

राष्ट्रदूत
WEDNESDAY
20 May 2026
A-B

#THE SEBRIGHT CHICKEN

Nature's Ornamental Masterpiece

The Sebright was bred primarily for ornamental purposes, and even today, they are prized more for their appearance than for their productivity

The Sebright chicken is one of the most striking and unique breeds in the world of poultry. Known for their exquisite beauty and ornamental qualities, these chickens seem as though they've been meticulously hand-painted, with their feathers and wings boasting intricate patterns that catch the eye. Originally developed in the 19th century in England, the Sebright was bred primarily for ornamental purposes, and even today, they are prized more for their appearance than for their productivity.

A Visual Feast: The Sebright's Feathers and Wings

At first glance, the Sebright chicken appears to be a living work of art. The most distinguishing feature of these birds is their shimmering, iridescent feathers. The feathers on both the body and wings are outlined with dark, metallic edges, giving the illusion of delicate hand-painted strokes. These detailed patterns of gold or silver reflect the light, and the overall effect is almost otherworldly. The way the feathers are arranged also adds to their ornamental look, with each plume carefully layered, creating a sense of elegance and grace.

Gold and Silver Sebrights

The Sebright comes in two main colour varieties: Gold and Silver. The gold Sebright has warm, golden feathers outlined with black, while the silver variety showcases pale silver feathers with darker edges. Both colour types are equally mesmerizing, with the contrast between the body and wing feathers creating a kaleidoscopic effect. The wings, in particular, look as though they've been painted with precision. The patterns on the wings, especially when the bird is in motion, are reminiscent of delicate brush strokes, adding to the bird's artistic appearance.

Behaviour and Characteristics

Despite their ornamental status, Sebright chickens are not just "pretty faces." These small, active birds have a lively and curious temperament. They are known for being friendly and relatively easy to handle, although they can be a bit flighty due to their lightweight, bantam size. Sebrights are also good foragers, often seen pecking around the ground for small insects and seeds, though they are less hardy than larger chicken breeds.

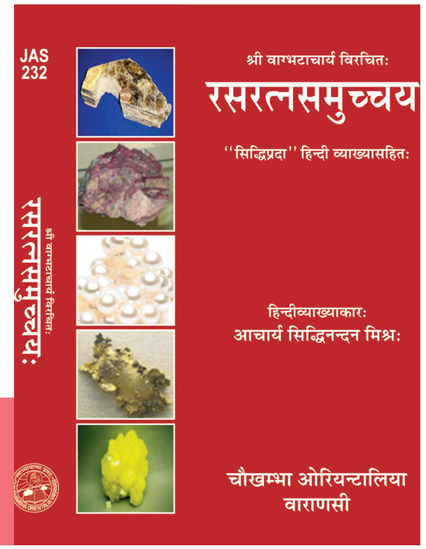
Their compact size makes them less suitable for commercial farming, as they typically don't lay many eggs, and their meat yield is minimal. However, they do lay small, white eggs, which is just an added bonus to their role as ornamental pets and show birds.

The Sebright Chicken Today

In the modern world, Sebright chickens are still predominantly ornamental, with many breeders continuing to cultivate and show these birds for their beauty. They remain a favourite among poultry enthusiasts who appreciate their distinctive appearance and charming personality. Whether in a backyard flock or on the exhibition circuit, the Sebright continues to captivate with its intricate, hand-painted-like plumage. For those looking for a chicken breed that is more about grace and art than production, the Sebright is the perfect choice. Their beauty transcends mere appearance, making them a true living masterpiece. And while they may not be the best egg layers or the most practical chickens for commercial farming, their status as one of the most ornamental breeds in the world of poultry is undeniable.

We Made The Zinc Distillation System

In most parts of the ancient world, this problem remained unsolved. Metallurgists could reduce zinc ore, but they could not prevent the evaporation of the metal itself. In India, however, the craftsmen of Zawar developed an ingenious solution. Instead of trying to prevent vaporization, they embraced it, capturing the vapor, guiding it through controlled channels, and then collecting the condensed metal.



● Verna Mohon

Long before the advent of industrial metallurgy in Europe, India was home to one of the most remarkable technological breakthroughs in the history of materials science: the Zawar distillation system. Conceived and perfected around the ancient mining town of Zawar in present day Rajasthan, this method enabled the production of metallic zinc on a scale and with a precision that European metallurgists would only match some eight hundred years later.

The region of Zawar had long been known for its rich deposits of zinc ore, particularly sphalerite, which is a zinc sulfide mineral. While extracting metals like copper or iron from their ores was well within the capabilities of ancient smiths, zinc presented an unprecedented challenge. Unlike most metals, zinc vaporizes at temperatures lower than those required for its reduction from ore. This meant that when heated, zinc would transform into vapor before it melted, and without a way to capture and condense that vapor, molten zinc would escape into the air, never forming a collectable metal.

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The heart of the Zawar system lay in the sophisticated design of its furnaces and retorts, ceramic or clay vessels sealed and heated in a carefully regulated environment. These retorts were charged with zinc ore mixed with charcoal, which acted as a reducing agent. Once sealed, they were heated externally. As the internal temperature rose past zinc's boiling point, vapor formed inside the vessel. But rather than allowing this vapor to escape, the distillation system incorporated attached cooler chambers where the vapor could travel, cool, and condense into liquid zinc. The retorts were heated from above, causing zinc to vaporize, flow downward, and condense inside a cooler chamber below, known as "distillation by descending" or tiryakpatnayantra. The condensed metal would then collect on the walls or at the base of these chambers, forming ingots of metallic zinc that could be tapped and further processed.

Archaeological excavations around Zawar have revealed extensive remains of these furnaces, retorts, crucibles, slag, and other artifacts, many of which date back to the first millennium CE. The sheer quantity and consistency of metallurgical remains suggest that zinc production was not a sporadic experiment but a sustained industrial tradition that spanned many generations. Radiocarbon dating and elemental analysis of the ingots show remarkable uniformity in quality and composition, underscoring a sophisticated empirical understanding of temperature control and chemical reactions.

The uniqueness of the Zawar area is linked to its geological endowments viz. the 30 km long zinc (Zn) and lead (Pb) sulphide mineralisation that occurs in a carbonate-bearing sequence belonging to the Paleoproterozoic Aravalli Supergroup in southern Rajasthan, India. Notwithstanding the stratabound nature of mineralisation, the distribution of Zn-Pb lodes is controlled by extensional shears and fold closures. Silver shows a distinct association with lead mineralisation. The presence of over 100 old working sites and several dumped metallurgical residues, spread over an area of over 50 sq km, bear testimony to the thriving mining and metallurgical operations in ancient to medieval times in Zawar and adjoining areas. The old workings were opened as deep linear trenches along with steeply inclined shafts that eventually opened into underground mining stops supported by flared pillars. The ancient miners could perfect high-temperature zinc distillation processes in well-designed furnaces, and Zawar, therefore, holds the distinction of being the first centre, producing pure zinc on an industrial scale in the world.

The excavated site at Zawar when located was a massive debri heap of fragmented zinc distillation retorts, some used and a few unused, along with furnace figments and ash. The location of the site is important because of its close proximity to argentiferous zinc, lead ores, which are embedded in the dolomite formation. The area under question is now controlled by the Hindustan Zinc Limited (HZL). Besides Zawar, the evidence of early zinc mining and smelting has also been found 2 km southeast of the village Kaya (6 km north of Zawar, and about 15 km south of Udaipur town) in the form of small retort heap and ancient mine workings in the adjacent hills.

Conjectural reconstruction of the furnace at Zawamala, an array of seven distillation furnaces, roughly squarish on plan (67 x 69 cm at base), were discovered. Each furnace had two chambers, upper and lower one, separated by 5.50 cm thick perforated plate of clay (four combined to form a single square). Each clay plate had 9 large holes (3.50 cm diameter) to accommodate the snouts other retort's condenser, and 26 smaller holes (plus 9 shared with neighbouring plate) for the passage of the air into the furnace and for the ash to drop through. It is presumed by the excavation that the furnaces may have looked like truncated pyramids and their height may have been about 60 cm.

The success of the Zawar distillation system represents a level of technological innovation that was unmatched elsewhere for centuries. Europe, for instance, did not independently develop a reliable zinc distillation process until the 18th century, when German and English metallurgists grappled with the same challenges that had already been mastered in India. The distillation principles used at Zawar, controlled atmospheres, vapor guidance, and condensation, mirror, in essence, fundamental aspects of modern industrial metallurgy.

In the broader sweep of global history, the Zawar distillation system stands as a testament to India's early mastery of complex materials technology. It highlights an unsung chapter in the development of metallurgy, one that underscores how ancient societies solved formidable scientific challenges through ingenuity, skill, and careful observation. By demonstrating how zinc vapor could be captured and harnessed, the craftsmen of Zawar laid down principles that would echo into the age of industrial chemistry.

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#METALLURGY

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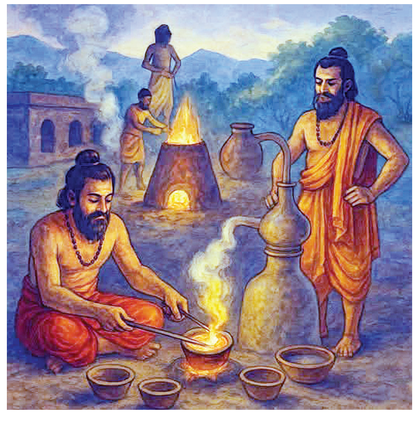


#KNOWING

The Quiet Power of Beauty and Memory

When a person encounters beauty, in nature, art, or sound, the response is not limited to simple pleasure. Instead, there arises an unexplainable eagerness, a gentle restlessness of the heart

Sanskrit Verse:
रम्याणि वीक्ष्य मधुरांश्च निशम्य शब्दान्
पर्युत्सुको भवति यत्सुखितोऽपि जन्तुः।
तच्चेतसा स्मरति नूनमबोधपूर्वं
भावस्थिराणि जननान्तरसौहृदानि।

यह श्लोक कालिदास के 'अभिज्ञानशाकुंतलम्' से है, जिसका अर्थ है कि सुखी होने पर भी प्राणी जब सुंदर वस्तुओं को देखता है और मधुर ध्वनियों को सुनता है, तो उदास या बेचैन हो जाता है, क्योंकि वह अचेतन मन से पिछले जन्मों के उन गहरे और स्थायी रिश्तों (मित्रता/प्रेम) को याद करता है, जो उसे इस जन्म में याद नहीं हैं।

This Sanskrit verse offers a profound insight into the inner workings of the human heart, revealing how beauty subtly awakens emotions that lie far beneath the surface of conscious experience. It speaks of a universal psychological truth: that pleasing sights and sweet sounds have the power to stir us deeply, even when we believe ourselves to be fully content. Happiness, the verse suggests, is not a closed or complete state; it remains sensitive, receptive, and open to emotional movement.

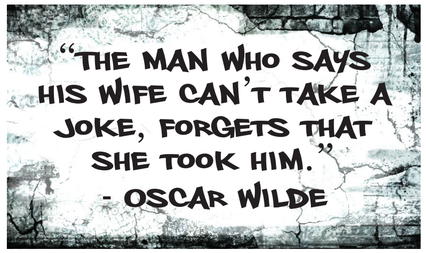
When a person encounters beauty, whether in nature, art, or sound, the response is not limited to simple pleasure. Instead, there arises an unexplainable eagerness, a gentle restlessness of the heart. This excitement is striking because it appears even in one who is already happy. The poet captures this paradox with great subtlety, showing that emotional stirring does not always arise from lack, but from depth. A fulfilled heart, too, can be moved, precisely because it is alive and responsive.

The verse then turns inwards, towards memory. The mind, touched by beauty, begins to recall experiences that were once lived but not fully understood. These are not deliberate recollections; they arise spontaneously, as though summoned from a hidden layer of consciousness. The suggestion that such memories belong to an "unaware past" points to the idea that certain emotional bonds are formed before they are intellectually recognized. They settle quietly within us, waiting for the right moment to resurface. What is especially striking is the nature of these remembered emotions. They are described as stable and enduring, not fleeting impressions. These are deep affections, friendships, loves, or emotional affinities, that transcend time and circumstance. The verse even hints at continuity beyond a single lifetime, suggesting that some bonds are so profound that they feel older than memory itself. In this way, beauty becomes a bridge between the present moment and an emotional past that still lives within us.

The beauty of the verse lies in its gentle understanding of human complexity. It does not portray longing as a flaw, or contentment as emotional closure. Instead, it presents the heart as a layered space where joy, memory, and yearning coexist naturally. Beauty does not disturb happiness; it enriches it by reconnecting us with the depth of our own emotional history.

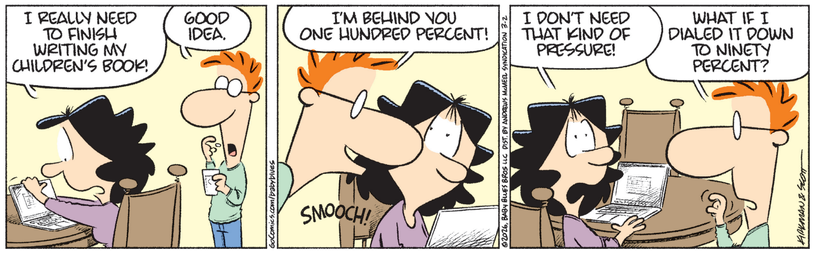
Ultimately, the verse reminds us that to be human is to carry within oneself a quiet treasury of memories and emotions. When beauty touches us, it opens that treasury, not loudly or forcefully, but with tenderness, allowing us to glimpse the timeless connections that shape our inner world.

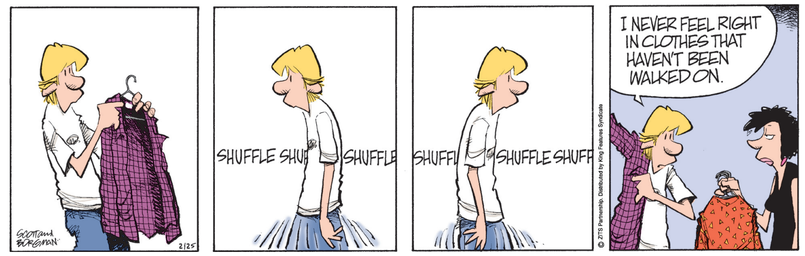
THE WALL



BABY BLUES

By Rick Kirkman & Jerry Scott



ZITS

By Jerry Scott & Jim Borgman