

JULY 27- AUG 02, 2025

# SUNDAY POST

HERE . NOW



P 3,4  
COVER  
STORY

**WORLD NATURE CONSERVATION DAY – JULY 28**

# TRASH TO TREASURE



# MY SUNDAY

Eighteen monsoons ago, a shy boy stepped onto a reality stage and Ollywood found its echo. His debut song 'Dhuan Dhuan' from the film 'Prem Weds Priya' earned him instant recognition, followed by the melodious 'Fagu Fagu Ei Akasha Tale' from 'Kichhi Khata Kichi Mitha'. Since then, there has been no looking back. With countless songs across films, albums, and singles, he has become a prominent voice in the industry. His devotional hit 'Jagatare Paibuni Emti Thakura Tie' remains a milestone in his career. Satyajee's Sunday is never silent; it hums with tomorrow's chorus.

ANISHA KHATUN, OP



WITH FAMILY

### Work is worship

Even my leisure time revolves around work; when I'm free, I explore new concepts, ideas, and compositions to enhance my singing and keep my creative process flowing.

### Quality time with family

If I have no work commitments, I love spending quality time with my wife and daughter. We relax at home, enjoy fun activities, or step out to visit a place together.

### Consistent routine

My Sundays are just like any other day—I begin with pranayama and yoga, followed by vocal exercises. My routine remains mostly consistent without much change.

### Indoor games to rejuvenate

I enjoy playing Ludo, so occasionally I indulge in indoor games to relax and refresh my mind during the day.



WITH SONU NIGAM



## WhatsApp This Week

Only on **Sunday POST!**

Send in your most interesting WhatsApp messages and memes at: [features.orissapost@gmail.com](mailto:features.orissapost@gmail.com) And we will publish the best ones

THE BEST MEMES OF THIS ISSUE

- I'm anti-work but pro-paycheck so you see my dilemma.
- Broken pencils are pointless.
- My password is the last 16 digits of Pi.
- Lawyers really aren't so bad, it's just ninety-nine percent of lawyers that make the rest look bad.



## Originality key to success

Sir, On 15 July 2025, YouTube's revised Partner Program redefines "repetitious content" as "inauthentic content," instantly targeting channels that pump out AI-narrated shorts, recycled compilations or near-identical uploads. Creators must now prove genuine transformation—original commentary, educational insight or significant editing—before ads run. Reaction, clip or meme channels can still monetise, but only if they add clear value; mass-produced, faceless slideshows or auto-generated voice-overs will be demonetised or removed from YPP entirely. The change also tightens Shorts and live-stream guidelines, cutting revenue for low-effort loops and 24/7 radio streams that rely on static visuals. High-effort storytellers, educators and niche reviewers are largely untouched, while viewers gain cleaner feeds with fewer spam videos. In the long term, the policy rewards creativity over volume, forcing creators to prioritise quality, transparency and audience trust—or pivot to sponsorships and fan funding. On this context, I appreciate the YouTubers who shared their perspectives in last week's cover story of Sunday POST. It's indeed high time, the creators present their audience original content to stay relevant.

GOVIND MAHARANA, JAGATSINGHPUR

## LETTERS



### A word for readers

Sunday post is serving a platter of delectable fare every week, or so we hope. We want readers to interact with us. Feel free to send in your opinions, queries, comments and contributions to

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WORLD NATURE CONSERVATION DAY – JULY 28

# TRASH TO TREASURE

*Conservation of nature isn't the sole responsibility of scientists, activists, or lawmakers. Each small action—cutting waste, reusing whenever possible, recycling every scrap—shrinks landfills and heals the planet*



**A**mid the rising tide of environmental crisis and unchecked consumerism, a quiet yet profound movement is taking shape—led by artists who transform waste into wonder. These imaginative creators are not merely sculptors or painters; they are alchemists of the discarded, breathing new life into what the world has deemed useless. Through their hands, rusted metal, broken glass, plastic scraps, and torn fabrics are reborn as intricate artworks, each telling a story of renewal, resilience, and responsibility.

But why do they do this instead of creating something with the use of fresh stuff? Because they believe that by reusing and recycling, they can contribute to conservation efforts. This is their way of celebrating World Nature Conservation Day.

Their art is more than a visual treat—it is a soulful rebellion against throwaway culture. By turning trash into treasure, these artists challenge our notions of beauty and worth, inviting us to see the extraordinary in the ordinary. Their creations shimmer with meaning, offering not only aesthetic pleasure but also a powerful commentary on sustainability and mindful living.

From gallery walls to public spaces, their works spark vital conversations about pollution, overconsumption, and the fragile state of our planet. In a world drowning in waste, these artists

serve as torchbearers of transformation—reminding us that change begins not in grand gestures, but in the simple act of reimagining what we discard. Their vision is clear: conservation is not just science—it is also art, purpose, and poetry.

As World Nature Conservation Day approaches, **SundayPOST** invites visionary artists to unveil the inspirations behind their eco-art and reflect on their soulful contributions to safeguarding our planet's delicate beauty.

**'Adaptability helps in new creation'**

**Pinaki Ranjan Mohanty** is an innovative artist known for creating extraordinary artworks from discarded materials. His unique ability to turn waste into compelling pieces of art has earned him recognition. A testament to his talent and commitment to sustainability, Pinaki received a prestigious research scholarship, which was followed by an exhibition at the Rashtriya Lalit Kala Akademi in Bhubaneswar in 2015. He has also showcased his work at several prominent group exhibitions, including

at the Lalit Kala Akademi in New Delhi in 2013.

Pinaki's creative journey is deeply rooted in the idea of redefining waste as a resource. "I'm inspired by the potential to redefine waste as a resource," he says. For him, art is not just about aesthetics—it's a powerful medium for advocacy and awareness. "By transforming discarded materials into art, I aim to

raise awareness about the importance of conservation," he explains.

One of his most impactful projects was a community mural crafted entirely from recycled plastic bottles. Reflecting on the project, Pinaki shares, "The mural raised awareness about plastic pollution and brought the community together to take action." The initiative successfully collected over 100 kilograms of plastic waste and became a catalyst for conversations around plastic use and waste reduction. It demonstrated how art can serve as a unifying force, inspiring communities to act collectively for the environment.

Creating art from waste, however, comes with its own set of challenges. "I face challenges in sourcing materials," he admits.



But instead of allowing these obstacles to hinder his creativity, he embraces them. "I overcome them by experimenting with different techniques and collaborating with local organisations." This adaptability not only helps him continue creating but also infuses his work with innovation and uniqueness.

Pinaki believes that waste-based art holds immense potential to shift public mindsets. "Art made from waste can challenge people's perceptions and behaviors, inspiring them to adopt more sustainable practices," he notes. His work stands as a reminder that beauty and purpose can emerge even from the most unlikely sources. Through his art, Pinaki continues to make a powerful statement about sustainability, inspiring others to view waste not as trash, but as a tool for transformation.

**'Trash-based art invites viewers to rethink what they value'**

**Sanjeeb Kumar Nayak** is an artist who has been reshaping the narrative around waste by giving discarded materials a striking artistic makeover. His work is not only visually compelling but also a thought-provoking commentary on sustainability and conscious living. For Sanjeeb, waste is more than rubbish—it's raw potential waiting to be reimagined.

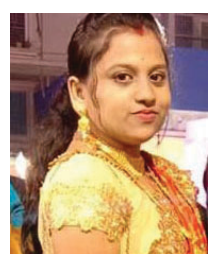
"Turning discarded materials into art is often driven by a mix of environmental concern, creative challenge, and a desire to spark dialogue," he says. Each found object carries unpredictability, texture, and a story. "Each discarded item brings a history and shape that pushes creativity in new directions," he adds. His art pushes viewers to rethink their notions of value and permanence. "Trash-based art invites viewers to rethink what they value. By transforming waste into beauty, the artist challenges our ideas of worth, consumption, and permanence."







Instead of throwing them away, I began experimenting, and soon I was making wall hangings, vases, planters and even lampshades from these discarded materials." With encouragement from her husband and support from her friends, what began as a hobby quickly grew into a small business. "The first time someone paid for one of my handmade pieces,



I felt something shift in me—like I had found both my voice and my purpose."

"I sell my products from home and the response has been heartwarming," she adds with pride. "People often say they can't believe the items are made from waste—some even ask for custom designs using their own discarded materials. That's when I knew this wasn't just about art; it was about awareness too. My creations now decorate living rooms and cafes, and every piece tells a story—not only of craftsmanship but of conscious living. Through this venture, I've not only become financially independent but have also joined a growing movement of women-led sustainable businesses. I believe that creativity can solve more problems than we realise—it can help us preserve our environment and empower our communities."

"Nature gives us so much, and this is my small way of giving back," Nandita says with a gentle conviction. "We often think conservation is the job of scientists, activists, or policymakers—but I believe every small effort counts. By reusing what we already have, we reduce waste, save resources, and inspire others to think differently. I've also started conducting workshops for children and homemakers, showing them how to turn everyday waste into something useful and beautiful. It's incredibly fulfilling to watch someone's face light up when they see the transformation. At the end of the day, if my journey can inspire even a few people to look at waste not as garbage but as a resource, I believe I'm on the right path—not just as an entrepreneur, but as a human being," signs off Nandita.

ANISHA KHATUN, OP



One of his most impactful works is Ctrl+Z Earth, a 40-foot sculpture that resonates with a powerful, symbolic message. "Ctrl+Z Earth was born from a simple truth many of us feel but rarely express: that our childhoods were filled with cleaner air, clearer skies, and a closer connection to nature," Sanjeeb shares. Referencing the digital command to undo, the sculpture metaphorically expresses a collective desire to reverse the environmental damage inflicted by modern habits. "This sculpture is a call to remember, to reflect, and to reset," he says. It encourages people to take small, conscious actions—like recycling, reducing consumption, or walking instead of driving—to heal the planet.

Working with waste presents constant challenges, from the inconsistency of materials to their unpredictable form. "Discarded items vary in shape, size, colour, and durability. It's hard to plan ahead or replicate a design," Sanjeeb explains. He embraces spontaneity, allowing the materials themselves to guide the creative process. "Collecting in bulk helps build a library of parts. I also rework materials—melting plastic, cutting metal—and use mixed media layering to disguise flaws and add depth."

For Sanjeeb, art made from waste does more than raise awareness—it touches people emotionally. "Most people understand pollution and overconsumption in theory, but waste art brings the problem into physical form," he notes. "When viewers see familiar trash transformed into something beautiful, shocking, or thought-provoking, it makes the issue feel real and urgent." His work inspires a lasting connection, encouraging people to think twice before harming the environment.

**'Creativity can solve more problems than we realise'**

"After marriage, my life took a beautiful yet unexpected turn," shares Nandita Sahoo, a homegrown entrepreneur who has carved a unique identity by turning household waste into elegant home decor items. "I always had a creative streak, but it was only after settling into my new home that I noticed how much waste we generate daily—old newspapers, glass jars, plastic bottles, fabric scraps.







# INT'L TIGER DAY – JULY 29

# STRIPED LIFELINES

The equation is ancient and merciless: when the last tiger closes its eyes, the world that remains will be one we no longer recognise

PIC: SUYASH KESHARI / WWF-INTERNATIONAL

The monsoon clouds over the Satpura hills in Madhya Pradesh look bruised at dawn. Beneath them, a tigress pads across a dry riverbed, her coat the exact colour of wet ember. She stops, one paw raised, nostrils flaring at the scent of sambar in the sal forest. That single, arrested paw is the fulcrum on which two futures balance: one in which the forest breathes, rivers run clean, and carbon stays locked in roots; another in which the forest forgets itself, the river silts up, and the monsoon washes topsoil into the Arabian Sea. The tiger, it turns out, is not merely a charismatic animal. It is the keystone in an arch that holds up an entire planet.

While 'Save Tiger' is a very popular slogan these days, not many know how tigers, planet's fiercest cat, quietly help us exist.

Here's a look at some lesser known facts about them.

### Invisible pillars of a forest

Walk into any tiger reserve and you will notice the silence first. Not absence of sound, but a layered hush: the rustle of langur fur on teak bark, the distant drumbeat of a grey hornbill. Ecologists call it the "landscape of fear." Deer browse higher up the slope, wild boar root in smaller circles, and the understory grows dense because plants are not constantly trampled. Remove the tiger and the fear evaporates. Ungulate herds balloon, overgraze seedlings, and within a decade the forest turns into a lawn with trees. A 2023 Indian Institute of Science study found that tiger-less forests lose 26 % of their tree diversity in just five years. Less biomass means less carbon sequestered—an invisible tax on all of us.

### The water guardian we never met

A tiger's territory averagely spans 30 kilometres of the Denwa River. Every



PIC: SANSKAR KHEDEKAR

### TX2 status

The TX2 goal—an ambitious 2010 pledge by all 13 tiger-range governments to double the world's wild-tiger population by 2022—has now officially closed. Final score: 5,574 wild tigers were estimated globally in July 2023, up from the 2010 baseline of ~3,200. That is roughly 74 % higher, falling just short of the 6,000-animal "true double" target, but it still represents the first net population increase for the species in more than a century and is considered a major conservation milestone. Progress has been uneven: Nepal, India, Bhutan, Russia and China all recorded significant gains, while tigers have declined or been extirpated in several Southeast Asian range states (Vietnam, Cambodia and Laos are now considered functionally extinct).

time the tiger drags a kill to a shaded gully, it fertilises the soil with 40 kilograms of nitrogen-phosphorus mix, kick-starting a microbial feast that filters pollutants before they reach the water. Researchers using isotope tracers showed that nutrients from a single tiger kill can enhance downstream algal growth, feeding mahseer fish that local communities rely on. In short, the tiger is an unpaid water-treatment plant—one that never asks for overtime.

### LESSER KNOWN TIGER FACTS

- Like the human fingerprint, each tiger's stripe pattern is one of a kind.
- A tigress uses the white spots on the back of her ears to communicate with her cubs.
- India has over half the world's population of tigers.
- For tigers only one in ten hunts are successful; a large deer can provide a tiger with one week's food.
- A tiger's grunt, growl, roar, moan, snarl, chuff, hiss and gasp communicate different things.
- There are more tigers in captivity than there are in the wild.
- The TX2 goal is the most ambitious conservation commitment for a single species.

### Economics of a roar

When the tiger thrives, entire economies pivot. In Nepal, community forests beside Chitwan National Park earn \$2.4 million annually from tiger tourism; every guide, boatman and honey-collector receives a monthly bonus when sightings rise. A 2024 World Bank report estimates that across the 13 tiger-range countries, protected areas generate \$11 billion in ecosystem services—flood con-

trol, honey, medicinal plants—every single year. Lose the tiger and those numbers evaporate, along with the jobs. The forest turns from an asset into a liability.

### Medical library we haven't opened

The striped saliva on Kali's whiskers contains a bacteriophage that biotech firms are studying to fight antibiotic-resistant tuberculosis. A peptide found in sambar antelope—tiger prey—has shown promise in slowing tumour growth. Every species in the tiger food web is a volume in a living pharmacopoeia. When we lose a predator, we lose the index to that library.

### Climate shield

Perhaps the most urgent argument is carbon. Tiger reserves in India alone store 1.2 billion tonnes of carbon—equivalent to the annual emissions of Japan. If those forests are converted to cropland, the carbon bill would cost \$724 billion to offset through technology. The tiger, by simply existing, keeps that vault sealed. It is cheaper to save the cat than to invent machines to clean up after it is gone.

### Last word

The same technology that can destroy the tiger can also save it. In Thailand, drones equipped with AI detect snares 30 % faster than foot patrols. In India, blockchain-verified honey guarantees zero tiger-habitat encroachment, fetching farmers 40 % higher prices. At the policy level, Bhutan's constitutional mandate that 60 % of the country remain forested for all time is a blueprint any nation can copy.

Save the tiger, and we save the forest. Save the forest, and we save the rivers. Save the rivers, and we save ourselves. The equation is ancient and merciless: when the last tiger closes its eyes, the world that remains will be one we no longer recognise. Until then, every stripe is a bar in the cage that keeps chaos at bay.





# Sheetal on language bias in showbiz

Actress Sheetal Kale, who rose to fame with Sushmita Sen's popular web series, *Taali* opened up about the prevalent partiality in Bollywood on the basis of language.

During an exclusive conversation with the news agency, Sheetal was asked if she had ever been judged on the basis of her regional accent.

Admitting to having gone through this, Sheetal told, "There's a lot of partiality in the industry. If you don't speak fluent English, you're often looked down upon. This is ironic because we work in Hindi cinema. I've faced such discrimination myself."

Sheetal added that people are quick to make assumptions about others. She explained that if you do not understand certain words or speak with an accent, they think you're not educated or not 'their level'.

"It's disheartening. But I believe talent should be the only criterion," she added.

Sheetal confessed that coming from a Marathi medium, she still gets nervous speaking in front of the camera.

"Even during interviews, I feel shy and struggle to express myself fluently. I'm still learning," she shared.

The actress revealed that when it comes to performing scripted lines, she enjoys it and feels more confident. Sheetal further revealed that speaking about personal things on camera is tough for her.

AIANS

# Chhi Re Nani to release Aug 1

**BHUBANESWAR:** After months of anticipation and an emotionally charged production journey, Sidharth Music is set to release *Chhi Re Nani*, an Odia-language romantic drama, in theatres August 1. The film stars Sailendra Samantray, Sivani Sangita and Dipanwit Dashmohapatra in lead roles.

Written and directed by Susant Mani, the story is set in a quiet rural backdrop with the lead characters conflicted between honour, tradition, and suppressed love.

The movie tells the story of Kanha, a free-spirited but wayward village boy who falls in love for Kusum, a girl shackled by family pride. Through heartbreak, betrayal, and rebellion, the story becomes an emotional spiral of longing and loss.

"This is not a film about heroes or villains. It's about people navigating right and wrong in a world where love feels like a crime," says producer Sitaram Agrawal.

*Chhi Re Nani* is slated for a pan-India release including diaspora locations like Bangalore, Delhi, Mumbai and Hyderabad, where the Odia-speaking population is strong.

The roots of the film lie in the massive viral resurgence of the timeless Desia song *Chhi Chhi Chhi Re Nani*, written, composed and sung by the late Satya Adhikari. The track recently found global traction — reinterpreted by influencers, musicians, and dance creators across borders.

What followed was the decision to develop a film not just inspired by the song's essence, but also as a tribute to its creator, said director Mani.



PNN

Actress Fatima Sana Shaikh has opened up about a tender memory from her younger days, recalling her first love.

Speaking to this news agency during the interview of her film *Aap Jaisa Koi*, the actress shared a sweet and nostalgic memory from her younger days. When asked whether she had ever pressed flowers in books or experienced such heartfelt moments, the actress smiled and said, "100 percent." Fatima also fondly recalled a birthday surprise from her then-partner, who had beautifully lined the path from the door to the room with flowers.

Recalling the same, the actress shared, "There were flowers everywhere, and around the cake, there were candles lit all over," she recalled. However, the surprise didn't go exactly as planned. By the time she arrived, most of the candles had melted away. We had to clean it all up later." Reflecting on that moment, Fatima said it was a special kind of love—simple and sincere. "I was very young and didn't even have Facebook or Instagram back then."

Fatima's co-star from *Aap Jaisa Koi*, R. Madhavan, also reflected on his early experiences with first love.

"When we fell in love, the imagination was always long-term. It was never about getting physical quickly. It was about making mixtapes, buying thoughtful gifts, and wooing the person properly," he said.

AIANS

# Fatima's first love



Saiyami Kher has become the first Indian actor to complete the Ironman 70.3 triathlon twice in a year. Reflecting on the achievement, she revealed that her training never really stopped after her first race in September. Motivated by a desire to push herself, she took on a much tougher course in Sweden, featuring 820 meters of bike elevation and stormy weather.

Despite challenges, including battling PCOS and competing on the last day of her period, Saiyami powered through with grit and consistency. Her preparation involved intense hill training near Shah Rukh Khan's home and long rides on hilly routes. She credits mental strength as the key to endurance, emphasising that "the body follows what the mind decides." For Saiyami, endurance sports offer a sense of purpose and personal growth.

On the work front, she recently reprised her role in *Special Ops 2*, calling it a rewarding experience, especially working with Kay Kay Menon and Neeraj Pandey. Balancing acting and fitness, she says both journeys help her evolve. Post-race, she celebrates with pizza, and while she prioritises shoots over runs, she dreams of co-stars like Farhan Akhtar or Akshay Kumar joining her for future triathlons.

# Saiyami shares her fitness routine

AGENCIES



# COLOUR VISION AND VITAMIN



**A diet rich in Vitamin A helps maintain optimal eye health, reduces the risk of age-related vision loss, and ensures proper functioning of the visual cycle**



**BHUBANANANDA SAHU, PH.D**

One of the greatest milestones in human evolution is our advanced colour perception. However, our visual system evolved from aquatic ancestors—such as fish—many of which possess a much broader range of colour recognition than we do. In comparison to many marine organisms, our colour perception can seem almost black and white.

The human eye functions much like a camera, with a lens that focuses light, an iris that acts like a shutter to regulate the amount of light entering the eye, and a retina that processes the visual information. Our vision depends on specialized cells in the retina, located at the back of the eye, called photoreceptor cells. Based on their shape, these cells are classified as rod photoreceptors and cone photoreceptors. Rods are responsible for night vision and are highly sensitive to low light, but they do not detect colour. Cones, on the other hand, are responsible for daytime vision and enable us to perceive colour. There are three types of proteins present in the cone photoreceptors of humans that are sensitive to blue, green, and red light. These proteins are called opsins, specifically known as blue opsin, green opsin, and red opsin. This is the reason humans have trichromatic vision. These three opsins enable us to perceive over a million different colour shades through neural processing in the brain. In contrast, most mammals (excluding primates) are dichromatic, possessing only two types of opsins—typically sensitive to blue and green—which limits their colour perception. Many marine organisms, however, are tetrachromatic or even pentachromatic, giving them a much broader range of colour vision.

Colour blindness occurs when one or

more of the opsin pigments are absent or malfunctioning due to genetic mutations. The two most common types are: Red-green colour blindness, the most prevalent type, affecting about 8% of men and 0.5% of women. Blue-yellow colour blindness, which is rarer and usually results from a defect in the blue opsin. These conditions are connected to the opponent-process theory of vision, first proposed by Ewald Hering in the 1800s. According to this theory, colours are interpreted in opposing pairs: red vs. green, blue vs. yellow, and black vs. white. This is why staring at a green shape and then looking at a white surface produces a red afterimage, and vice versa. Similarly, a blue shape can produce a yellow afterimage. These afterimages result from photoreceptor fatigue and neural adaptation in the visual cortex and can be easily demonstrated with simple home experiments. Because the red-green pigment genes are located on the X chromosome, and females have two X chromosomes, women are less likely to be affected by red-green colour blindness. In contrast, men, who have only one X chromosome, are more susceptible. An interesting cultural note: since blue-yellow colour blindness is rare, and blue is one of the most universally visible colours, platforms like Facebook chose blue as their primary colour to ensure maximum visibility and accessibility.

Sunlight is composed of a broad spectrum of electromagnetic radiation—from X-rays to radio waves—but only a narrow band, approximately 400 to 700 nanometers, is visible to the human eye. This visible light makes up just about 0.0035% of the entire electromagnetic spectrum. When white light passes through a prism, it separates into a spectrum of colours, but due to the trichromatic nature of our eyes, we commonly perceive only seven distinct colours: red, orange, yellow, green, blue, indigo, and violet (ROYGBIV). This prism simple observation beautifully demonstrates the complex nature of light.

All the remarkable processes of human vision occur within a thin, delicate tissue at the back of the eye called the retina. Interestingly, only about 5% of the retina's photoreceptor cells are cone cells, which are responsible for daytime and colour vision. The remaining 95% are rod cells, specialized for night vision. This distribution reflects our evolutionary history—after the extinction of the dinosaurs around 65 mil-

lion years ago, our early mammalian ancestors, which were mostly nocturnal and lived in subterranean or low-light environments, evolved to rely heavily on rod-based vision. Later, some adapted to arboreal (tree-dwelling) habitats, leading to the development of trichromatic vision. Rod and cone photoreceptors contain light-sensitive proteins—rhodopsin in rods and cone opsins (or photopsins) in cones. These opsins bind to a vitamin A derivative called 11-cis-retinal. When a photon of light strikes this molecule, it undergoes a structural change known as photoisomerization, converting from 11-cis-retinal to all-trans-retinal. This change causes the retinal to detach from the opsin, triggering a cascade of events that generate an electrical signal sent to the brain. This transformation marks the first crucial step in the visual transduction pathway. This light-reactive molecule, or chromophore, was first identified by American biochemist George Wald. His groundbreaking research on the role of 11-cis-retinal in vision earned him the Nobel Prize in Physiology or Medicine in 1967.

Vitamin A, in the form of all-trans-retinol, must be converted back into 11-cis-retinal and rebind to opsin in order to regenerate the light-sensitive visual pigment complex. This regeneration process occurs much faster in cone cells (which contain red, green, and blue opsins) than in rod cells (which contain rhodopsin). This difference explains why, when a person moves from a bright environment to a dark one, there is a temporary period of reduced vision—a phenomenon known as dark adaptation. Rods require more time to regenerate rhodopsin and fully regain their sensitivity to low light. That's also why looking directly at intense light sources, such as the sun, for extended periods can damage the retina due to overstimulation of photoreceptors, potentially leading to long-term visual impairment. To protect the eyes from harmful light intensity, people often wear photochromic lenses or polarized sunglasses. Polarized lenses, made from materials like Polaroid film, block light waves oscillating in specific directions. This reduces glare and enhances visual comfort, especially in bright outdoor environments—something that can be easily demonstrated through simple experiments at home. Polarization technology is widely used—not only in eyewear but also in car windows, camera filters, and LCD screens—to reduce glare

and improve image clarity.

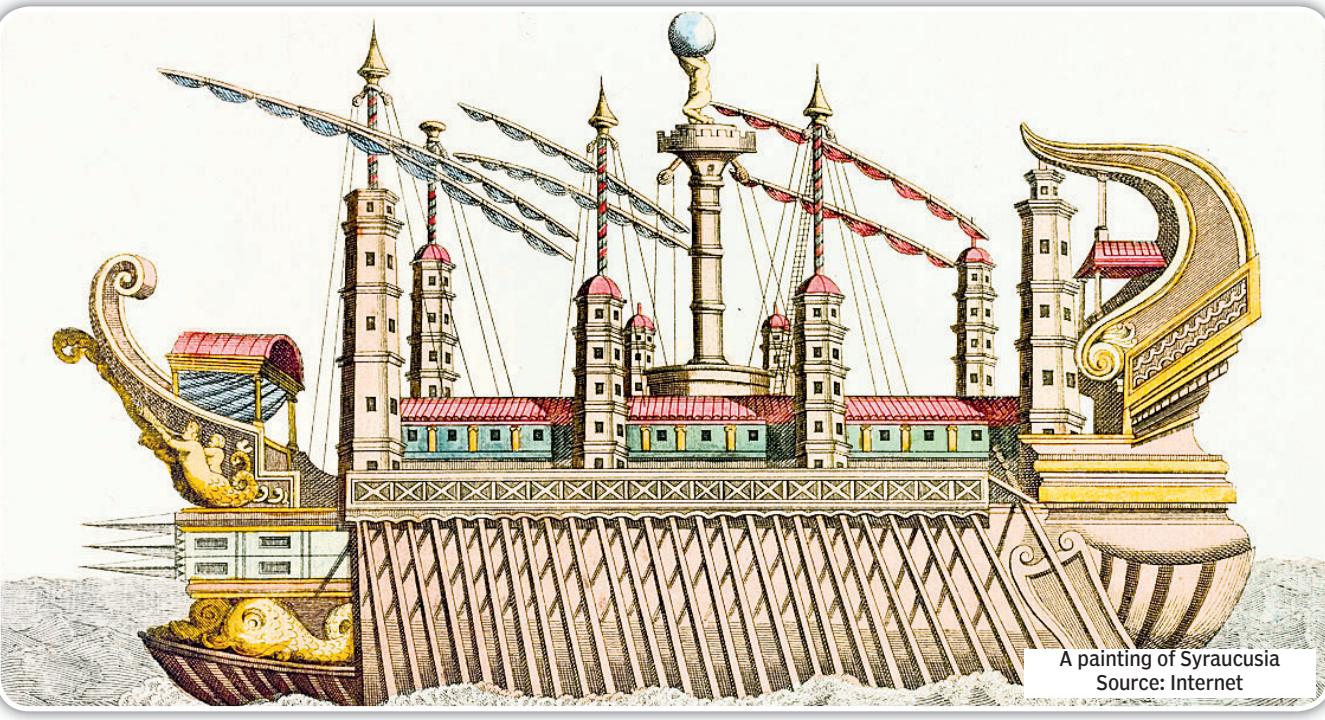
Vitamin A plays a crucial role in the visual cycle, particularly in the regeneration of the light-sensitive molecule 11-cis-retinal, which is essential for both day and night vision. A deficiency in vitamin A can lead to various vision problems, the most notable being night blindness (nyctalopia)—a condition in which individuals have difficulty seeing in low-light or dark environments. One of the earliest signs of vitamin A deficiency is impaired dark adaptation. This condition is especially common among malnourished children, particularly in developing regions where access to vitamin A-rich foods is limited. If left untreated, prolonged vitamin A deficiency can lead to more severe ocular conditions, such as xerophthalmia, corneal ulcers, and, in extreme cases, irreversible blindness. The conversion of dietary vitamin A into its active form, 11-cis-retinal, involves several enzymes. One of the key rate-limiting enzymes in this process is Retinol Dehydrogenase 5 (RDH5), which catalyzes the oxidation of 11-cis-retinol to 11-cis-retinal—an essential step for photopigment regeneration in the retina. Studies in animal models have demonstrated the critical role of RDH5 in maintaining normal visual function. In one of our studies, we showed that mice lacking the Rdh5 gene exhibited significantly reduced visual responses, as measured by electroretinography (ERG), indicating impaired retinal activity (Sahu et al., Retinol Dehydrogenases Regulate Vitamin A Metabolism for Visual Function. *Nutrients*. 2016 Nov 22;8(11):746).

This reinforces the critical role of retinoid metabolism in maintaining visual health. Vitamin A can be obtained from: Preformed vitamin A (retinol and retinyl esters) found in animal products such as liver, eggs, and dairy. Provitamin A carotenoids, like beta-carotene, found in colourful plant-based foods. Beta-carotene is converted by the body into vitamin A. Rich dietary sources include: Carrots, Sweet potatoes, Pumpkin, Spinach, Kale, Mangoes. A diet rich in these vegetables helps maintain optimal eye health, reduces the risk of age-related vision loss, and ensures proper functioning of the visual cycle.

*The author is a researcher and writer in Ophthalmology and Visual Science Massachusetts, USA*



# FLOATING CITY THAT SAILED ONLY ONCE



A painting of Syraucusia  
Source: Internet

staggered banks of oars, Syraucusia glided eastward with a cargo manifest that read like an empire's tribute: 60,000 measures of grain, 10,000 jars of salted fish, 20,000 talents of wool, 2,000 measures of fresh water, plus passengers, soldiers and horses. Only Alexandria's double harbor could swallow her; every other port along the route watched in awe as the floating palace passed. Upon arrival, Hieron presented the vessel to Ptolemy III Euergetes; rechristened Alexandria, she vanished from the records like a dream at sunrise.

### Ghost of a colossus

Attempts to outdo Syraucusia soon followed. Ptolemy IV built the 130-metre Tesseractonteres—too heavy to steer and never sailed far. Centuries later, Romans and Byzantines puzzled over the lost technology; not until the Renaissance did wooden ships again approach Syraucusia's scale. Today all that remains are fragments of Athenaeus's description and a scale model in Athens' Museum of Ancient Greek Technology, its tiny Atlas statues still bravely holding up a vanished world.

*Be it 1912-built RMS Titanic or Japan-made Seawise Giant of 1979, every modern cruise liner, every amphibious assault ship, every floating hospital carries a faint echo of that three-decked world named Syraucusia where Archimedes once made the earth itself feel small*

months by 300 craftsmen. Naval architect Archias of Corinth laid the keel, but every beam, pulley and mosaic tile carried the invisible signature of Archimedes.

### 3 decks, 3 worlds

Stepping aboard Syraucusia was like walking through a small, seaworthy city-state. The lower deck served as its gritty engine room: warehouses of grain, amphorae of salted fish, drinking-water cisterns, horse stalls, bakeries, mills and even a fish farm kept in a lead-lined tank. A bronze Archimedean screw—history's first automatic bilge pump—hummed day and night to keep the giant afloat.

One floor above, opulence took over. Passengers reclined in 142 first-class cabins floored with Iliad mosaics. There was a gymnasium where athletes sparred to the slap of waves, a steam bath fed by bronze boilers, a library scented with cedar, and a temple of Aphrodite where wine and vows were exchanged. Ivy and roses spilled from terracotta pots along shaded promenades; marble Atlas figures, carved by Sicilian masters, appeared to shoulder the upper deck like living myth.

### Thunderbolts & ivory railings

That upper deck doubled as fortress. Eight wooden towers bristled with catapults, ballistae and iron grapples ready to claw enemy hulls. A retractable gangway—part drawbridge, part battering ram—could drop onto a pirate deck and spill 200 hoplites in perfect formation. Lead sheathing along the waterline discouraged ramming; iron railings made boarding ladders bounce off like toys. Syraucusia was, in effect, the world's earliest luxury cruiser wearing the armor of a battleship.

### A launch that shamed the earth

When the hull was complete, another problem surfaced: no slipway in Syracuse

could bear the weight. Hieron challenged Archimedes to "move the earth, or at least my ship." Using compound pulleys and windlasses of his own invention, Archimedes reportedly hauled the 1,600- to 1,800-ton giant to water "with one hand and a firm footing," astonishing a crowd that had wagered against the feat.

### The single voyage—and disappearance

Under three great sails and twenty

### Why Syraucusia still matters

Syraucusia was more than a maritime stunt. She proved that engineering could reconcile opulence with utility, defense with elegance, and that even in antiquity the sea was a canvas for imagination. Every modern cruise liner, every amphibious assault ship, every floating hospital carries a faint echo of that three-decked world where Archimedes once made the earth itself feel small.

OP DESK

**K**nown as the largest transport ship of antiquity and a marvel of engineering, combining luxury features with cargo capacity and defensive capabilities, Syraucusia was incredibly large for its era, possibly 50 times the size of a standard warship.

The ship served as a symbol of Syracuse's maritime power and technological prowess under King Hiero II.

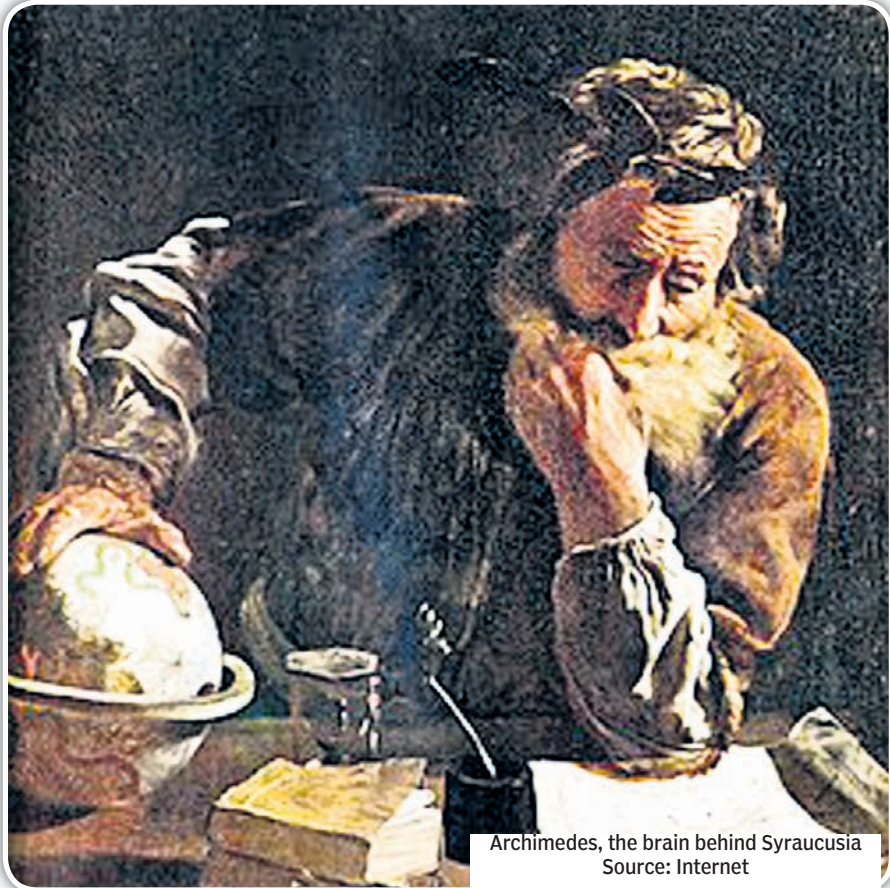
At that time, Syracuse was an independent colony located on the island of Sicily. Hiero II of Syracuse commissioned it in the third century BC and sent it to Ptolemy III Euergetes in Alexandria.

This ancient Greek ship was so massive that no Sicilian port could accommodate it. It sailed once, from Syracuse to Egypt, and then disappeared from the historical record.

A look at some of the fascinating facts about the cruise.

### A king's whim and a genius's blueprint

In 240 BCE the tyrant of Syracuse, Hieron II, decided that diplomacy needed a flourish worthy of Olympus. He summoned Archimedes—already famous for levering planets on paper—and asked for a ship that would "carry Sicily to Egypt." The mathematician sketched a leviathan: 75 metres long (some sources say 110 m), 40 metres wide, built from enough timber for sixty triremes and assembled in twelve



Archimedes, the brain behind Syraucusia  
Source: Internet