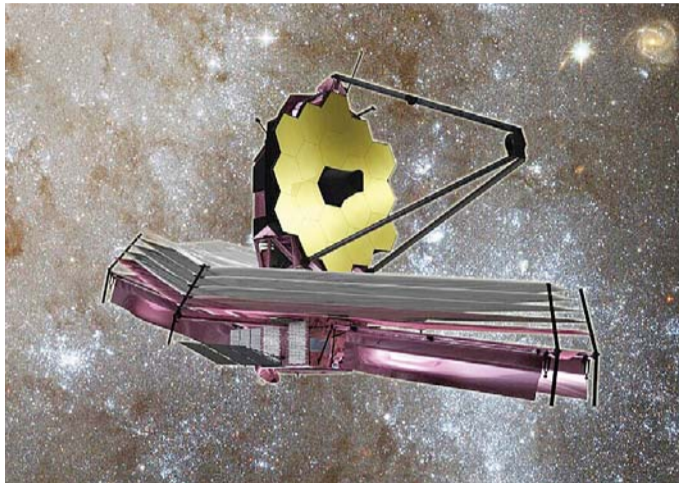


#SPACE

The Universe Holds Secrets

Webb telescope just found massive objects that shouldn't exist in deep space



Scientists expected the James Webb Space Telescope to reveal unknowns in the deepest realms of space. But they certainly didn't anticipate this.

While scanning a region of the cosmos near the Big Dipper, a group of astronomers identified six faint objects as they appeared well over 13 billion years ago. They suspect the objects are ancient galaxies. Scientists expect such early collections of stars and swirling matter to be relatively small. After all, such galaxies hadn't had much time to form or grow. But these galaxies are giants, the researchers report.

"It's bananas," Erica Nelson, an astrophysicist at CU Boulder who worked on the new research, said.

"It's bananas because the objects, which are 'red and bright' in the Webb observations, might host billions of stars (and many more planets), similar to our Milky Way galaxy. These galaxies formed some 500 to 700 million years after the universe was created during the Big Bang, and at such a time there simply shouldn't have been enough matter around to create fantastic bursts of stars and solar systems, Nelson explained.

They're red because the universe is expanding, and the light traveling through it becomes stretched out, ultimately shifting to longer, redder wavelengths. Importantly, the research about these galaxies is just beginning. There is potential, for example, that some of these bright red masses are a different kind of primordial object, like a quasar (intensely hot, energetic matter spinning around a black hole and emitting tremendous amounts of light into space).

Astronomers using the Webb telescope have spotted the earlier galaxies, too, including some that formed just 350 million years after the Big Bang. But these galaxies are much smaller. They make more sense than the recently spotted behemoths.

"If even one of these galaxies

is real, it will push against the limits of our understanding of cosmology." Nelson noted. Cosmology is the study of our universe's origins and evolution. Where'd we come from? And how did we get here?

The Webb Telescope's Powerful Abilities
The Webb telescope, a scientific collaboration between NASA, the ESA, and the Canadian Space Agency, orbits the sun 1 million miles from Earth. It's designed to peer into the deepest cosmos and reveal unprecedented insights about the early universe.

Here's how Webb is achieving unparalleled things, and likely will for decades:

Giant mirror: Webb's mirror, which captures light, is over 21 feet across. That's over two and a half times larger than the Hubble Space Telescope's mirror. Capturing more light allows Webb to see more distant, ancient objects. As described above, the telescope is peering at stars and galaxies that formed over 13 billion years ago, just a few hundred million years after the Big Bang.

Infrared view: Unlike Hubble, which largely views light that's visible to us, Webb is primarily an infrared telescope, meaning it views light more efficiently slip through cosmic clouds; the light doesn't as often collide with and get scattered by these densely-packed particles. Ultimately, Webb's infrared eyesight can penetrate places Hubble can't.

Peering into distant exoplanets: The Webb telescope carries specialized equipment called spectrometers that will revolutionize our understanding of these far-off worlds. The instruments can decipher what molecules exist in the atmospheres of distant exoplanets—be it gas giants or smaller rocky worlds. Webb will look at exoplanets in the Milky Way galaxy. Who knows what we'll find.



Sunayan Sharma
IFS (Retd.), Ex field director project tiger Sariska & Keoladeo national park, Bharatpur

Narrow Escape From A Deadly Trap (...2)

#FORESTING

The victim instantaneously fell down on the ground. Richhpal and another guard ran to lift him up but he could not be brought back to his feet. He was crying at a high pitch drawing everybody's attention.

By the time I reached the spot to understand the situation, many people from the village had gathered there. They were accusing us of oppressing the poor tribals. Richhpal and I were trying to diffuse the situation but the crowd did not disperse; instead more and more people had started to gather. Understanding the situation, I immediately got Nanalal moved to the safety of the vehicle. Richhpal suggested we leave the place immediately. He was right under the circumstances. Following his suggestion without losing any time we boarded the pickup with the arrested offenders and the seized material but try as we might, could not succeed in leaving the place.

Ensuring Safety
Several villagers, chiefly tribals, showing collective aggression had blocked the thin earthen motor track by stacking logs, stones and bamboo bundles. They were shouting slogans against us. Richhpal, our one man army albeit with great difficulty but any how succeeded in removing these barricades from three points. We thought we would make it to the main road soon, but we had fallen in a trap, masterminded by some of the timber smugglers, running this illegal activity under the garb of merchant shop in this village. Their plot was unveiled when we reached the spot where the Nanalal's victim had fallen. To our surprise, now there were four more people lying on the ground in line with the 1st one hit by Nanalal, covered wholly by cloth-feigning dead. Several adivasis with lathis were aggressively shouting slogans



Seized smuggled Timber Lot.

accusing us of killing five innocent poor tribals. And at this point they had erected almost an impenetrable barrier, using every possible material. Richhpal and I were busy in calming the agitated people but it was not easy for us to get out of this cleverly laid trap. Looking at the situation some other staff personnel too came down the vehicle to diffuse the situation in their own way but could not succeed and in the meantime taking advantage of the situation all the arrested offenders fled away from our custody pushing aside the demoralized forest personnel. It was not the best time to waste energy on chasing them; instead saving lives of our staff was my lone consideration. In the crowd, one Pooranmal, a general merchant and local liquor seller of the village, posing to be on our side, proposed to calm the aggressive tribals; provided we agree to handover Nanalal—who was falsely alleged to have killed the 1st person.

Safe Passage
As agreed we assembled at one of the houses owned by another general merchant. After a long conversation, Roopaji agreed to personally check whether someone had died or not? And reaching the site, he found just one person. The first one injured by Nanalal, had got up, sitting in an upright position on Roopaji's asking.

The tribals, provoked by dubious Pooranmal, insisted on a compensation worth ten thousand rupees for releasing us. I promised to get best possible treatment for the injured person at our cost but the tribals were insisting on fulfillment of their demand or they would set fire to the vehicle killing the staff. In fact they

persuasion but again came back to his rhetoric of handing over Nanalal to them. With every passing minute, the situation was worsening so I sent most of the staff in to safety of the vehicle but that too did not do much good as several adivasis mostly involved in wood smuggling were threatening the staff in the vehicle by shoving pointed sticks, rakes and spears at them.

And then, in this roaring unruly crowd Richhpal identified Roopa Gameti a tribal headman, much respected in the area, and called him by his name. Roopaji also responded to his call albeit bit coldly. Reaching him, Richhpal apprised him of the reality. The Gameti tried to confirm from the crowd but it was a bit difficult task under the conditions. He agreed to discuss this in our presence with some representatives from the crowd and we consented. Meanwhile, Roopaji's intervention ensured some safety to the staff in the vehicle.

These were very anxious moments for me as neither Pooranmal was trustworthy nor Roopaji had succeeded in quieting the violent individuals who were adamant to take revenge from Nanalal, who was still trapped in the pickup. But Pooranmal this time acted totally differently and in half an hour's time, he got the pickup freed & he himself removed the barricades allowing the vehicle to jump through the partial clearings in full view of the crowd. He then approached us to announce this development and wanted us to leave instantly. Thanking Roopaji, I paid him whatever we had in our pockets

to get the victim Bhima, treated properly and to support his family till he recovers properly. Roopaji showed gratitude and we left at rocket speed lest some new problem emerges.

Reaching Salumber Headquarters we unanimously decided not to involve police in this case as no one expected any positive action from them. Instead, the 3rd day with reinforcement of additional staff and vehicles we raided the village and surroundings and seized two truck loads of timber and green bamboo being smuggled through carts and headloads from jungle and stored in hideouts belonging to Pooranmal.

He was arrested and sent to jail. Realizing the sensitivity of the place, I created a Naka (HQ of a Forester) at Kirawali and Richhpal was made its first incharge. Patrolling was intensified yielding appreciable results in curbing illicit felling of forest produce from the adjoining forests. I got a scheme approved from the Divisional Forest Officer for increasing plantations annually in this area to supplement the losses caused to the forest by illicit felling and simultaneously provide employment to the local tribals. Also, with our efforts, an ayurvedic dispensary was opened by the Government in this remote village. Richhpal, as I rightly addressed him as a one man army, developed such good relations with these villagers that not only illicit fellings were curbed to a great extent but also the tribals got motivated to shift to other ways and means to earn their bread. Richhpal was aptly rewarded through promotion but kept at this Naka only as much work was yet to be done here. After two years when I left this range on promotion, I was a happy man and a content officer. The Kirawali experience benefited me hugely throughout my long service especially in dealing with the tribals.

His ulterior motive was clear; he wanted to further complicate the situation under the garb of diffusing it. The crowd was swelling at a fast pace and this man in a dramatic style had been raising his voice pitch to aggravate the situation while feigning to help us. Time was running out of our hands and no appropriate solution seemed to be working out. Then I made a proposal to him - to hold me and Richhpal - and negotiate at his outfit, provided our vehicle with staff is given safe exit. At first he agreed with little persuasion but again came back to his rhetoric of handing over Nanalal to them. With every passing minute, the situation was worsening so I sent most of the staff in to safety of the vehicle but that too did not do much good as several adivasis mostly involved in wood smuggling were threatening the staff in the vehicle by shoving pointed sticks, rakes and spears at them.



Salumber-Dhariawad border full of luxuriant Bamboo Forests.



Instigated Tribals gathered to attack forest personnel.

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Though Roopaji was unhappy with the villagers for trapping us, leveling false charges of murdering innocent tribals but also he was highly annoyed with the driver for causing such grievous injury for a minor offence, committed by the poor tribal. I apologized for this act at our part and solicited his cooperation in giving us a safe passage. He nodded to try convincing tribals but also hinted that Pooranmal had been instigating them to realize at least ten thousand from us in order to discourage us from raiding this area in future ever.

Our threat had softened Roopaji but it had magic effect on Pooranmal, who immediately changed his tone taking a U-Turn from his early role. He swore his faithfulness to us and assured to do his best to diffuse the situation and took guarantee of our safety. That moment he outtraced every chameleon in changing his colours. Pooranmal insisted me to give him little time to calm down the violent tribals and till then we had to stay in the safety of his house. He was not a trustworthy person but looking at the circumstances, we had no choice. I decided to take a chance but sent a smart forester and Roopaji along with him.



Tribals being instigated to attack forest personnel.

International Wig Day



Playing dress up has been a favourite pastime for children for ages. Why do we let go of the fun? International Wig Day has created a day where anyone and everyone can play along and wear a wig to change their appearance. You can choose to be silly, or serious. You can get a wig that will let you try out that haircut you've been thinking about, but aren't sure if you are brave enough to do it. Now you have a reason and way to try it on for sure!

#TRAVEL

Planning To Escape?

For those who don't have a summer travel bucket list, this country is dotted with amazing places that are waiting to inspire awe in their visitors. Have a look!



Summer is just about to enter our lives, and we all will be looking for long get-aways. Away from the scorching heat, and the daily boring routine. With the rising temperatures, everyone will be looking for the best places to visit in India to beat the heat and chillax.

From the high mountains of the Himalayas to the vast beaches of the Andaman Islands in the south, and from the Western Ghats to the Easter end of the Himalayas, you will find several tourist places in India for a summer vacation.

We have compiled a list of all the places that are worth a visit. Don't forget to pen down your favourite ones from these!

Auli
Auli is a hill station in Uttarakhand, which is one of the most beautiful places in India and a great place to spend your summer vacation. The lush green meadows and snow-covered peaks will make you gaze at them for hours and hours. The cold weather of Auli will make you forget about the scorching heat of the cities. It is a popular destination in India for a fun family vacation.

Famous places in Auli: Chatrakund Lake, Joshimath, Gursobugyal, and Artificial Lake.



National Park. Kodaikanal
Kodaikanal is a quick weekend getaway for Bangaloreans just like Nainital for Delhiites and Darjeeling for Kolkatans. Meadows, valleys, waterfalls, grasslands, and forests make this quaint little hill station one of the best tourist places in South India. Kodaikanal offers a plethora of activities to do such as boat rides, trekking, cycle rides, and yoga. The pleasant weather, the mesmerizing beauty, and the welcoming people will make you extend your summer holidays.

Famous places in Kodaikanal: Kodaikanal Lake, Pillar Rocks, Dolphin's Nose rock, Shembaganur Museum of Natural History, Bryant Park, Coaker's Walk, and Bear Shola Falls.

Spiti
Spiti is the twin region of Ladakh but, much-less explored and untouched than its counterpart. It is one of the most popular emerging destinations. Spiti is the place for people who like to ride their bikes on the most difficult and challenging roads. With deep valleys covered with lush green vegetation and long stretches of winding roads, Spiti is amongst the best places in India to discover during summer. This hilly region of Himachal Pradesh is one of the coldest places in India and hence, is a great place to get away from the summer heat. From the oldest monasteries to breath-taking landscapes, there are many things to see here.

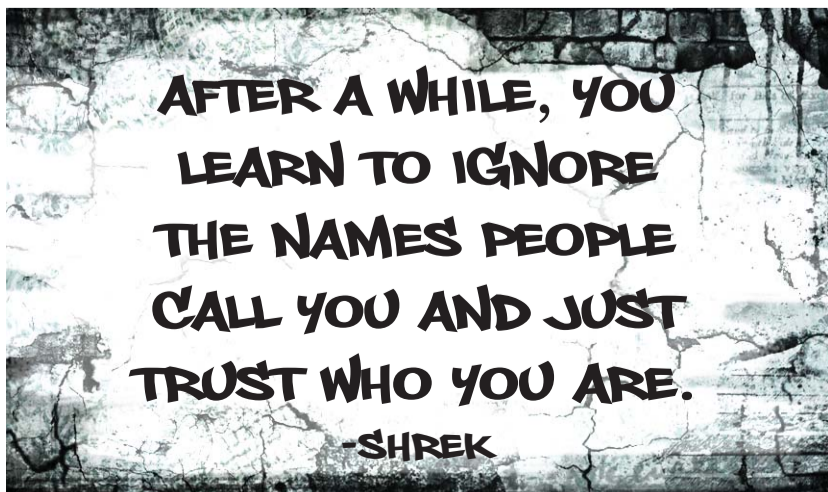
Famous places in Spiti: Kaza, Tabo, Chandra Taal, Kibber, and Pin Valley

Famous places in Thekkady: Elephant Junction, Periyar Tiger Reserve, Spice Farms, and Rose Park.

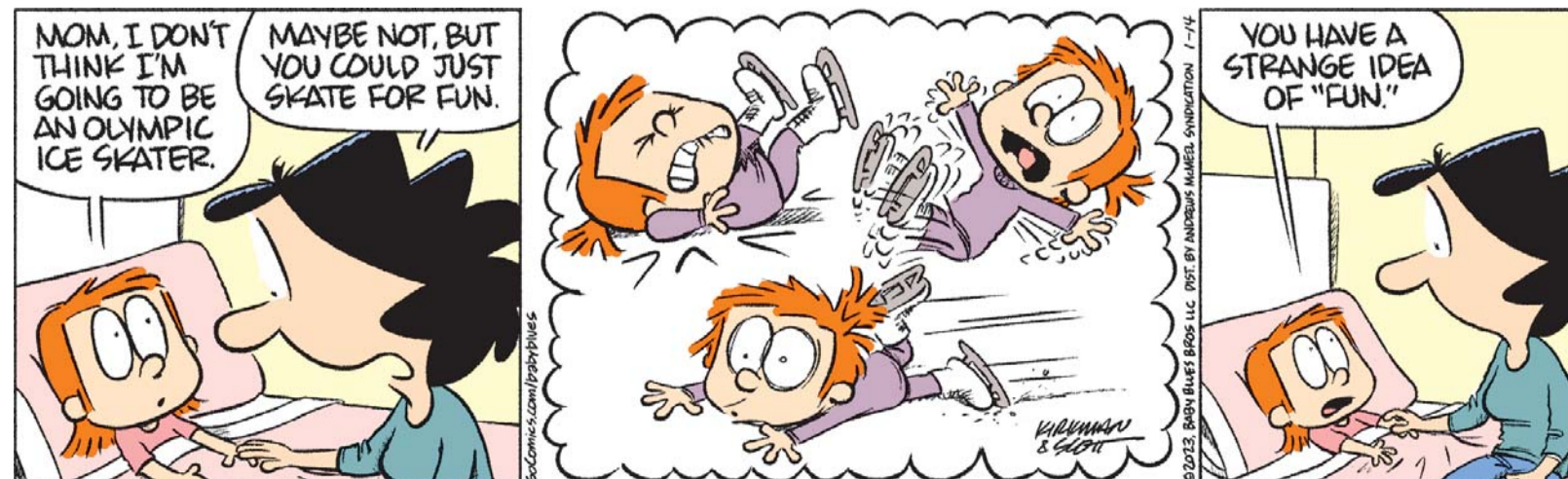


Thekkady.

THE WALL



BABY BLUES



By Rick Kirkman & Jerry Scott

ZITS



By Jerry Scott & Jim Borgman