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magazine

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Biohacking is picking up in India, with followers trying everything from cryotherapy to IV therapy. As more centres open up, taking the trend to the masses, should we practise some caution?

THE RACE TO BECOME SUPERHUMAN

Neha Vineet Mehrotra
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Jag Chima calls himself a leader, not a follower; this comes with its own gruelling routine. The first thing the 45-year-old entrepreneur does each day, even before brushing his teeth, is take a two-minute ice-cold shower that helps "set the trajectory for my mood, my energy, my vibe". This is followed by praying and meditation, after which he hits the gym. His nutritional intake is equally conscientious: he follows a strict keto diet, and fasts for 23 hours twice a week – a phenomenon called OMAD (one meal a day), which serves as "an internal cleanse and helps regenerate new cells in the body".

In addition, Chima, who alternates between London and Delhi, unfailingly does red-light therapy every night, courtesy a portable device he carries with him; cryotherapy three times a week; hyperbaric oxygen therapy at least twice a week; and IV therapy twice a month. He takes a cumulative 13 supplements on a daily basis, ranging from KSM-66 *ashwagandha* (to reduce stress) to methylene blue (to boost immunity). And he grounds himself whenever possible, i.e., walks barefoot on the ground, grass or the beach, depending on where in the world he is. Like J.R.R. Tolkien, Chima too believes in 'one ring to rule them all' – in his case, an Oura ring that is always on his index finger, which apprises him of heart rate variability, oxygen and stress levels, and most importantly, his sleep quality. Welcome to the world of biohacking.

Silicon Valley origins

For the uninitiated, biohacking involves the use of science, biology, and DIY experiments – everything from measuring sleep patterns to injecting a younger person's blood into your veins – to 'hack' or upgrade your body. The term was coined by Dave Asprey, an entrepreneur and author, back in 2011, who kicked things off with the introduction of bulletproof coffee: a combination of coffee, MCT oil, and grass-fed butter, a biohack to help start your day with a caffeinated but energy-rich drink. For Asprey, biohacking meant "changing the environment outside of you and inside of you so you have full control of your biology".

Over the years, it was picked up by Silicon Valley executives and tech-bros, who were only too ready to push their body to new limits. As one *Vanity Fair* article put it, "You've got the Dorseys [Twitter co-founder] of the world bragging about how little they eat each day, the Zuckerbergs boasting of killing their own food [he only ate meat of animals he killed himself], and an army of nerds now wearing every tracking device imaginable". Taken to its extreme, this can become a pursuit to stop ageing altogether.

The most well-known face of this community is Los Angeles-based multi-millionaire Bryan Johnson, whose obsession with not dying has become the stuff of lore. If Chima's routine seems extreme, Johnson's is almost unbelievable, and involves, among other things, a team of 30 scientists who measure him every day, 111 nutritional supplements, a penile device that measures night-time erections, and blood transfusions from his 17-year-old son – adding up to a cumulative expenditure of $2 million annually. The tech entrepreneur claims to have reversed his age by 5.1 years and is now sharing his secrets through his wellness company Blueprint. On April 4, he launched Blueprint Stack, which includes a drink mix, protein, eight pills, snake oil, and more for $343 a month.

An IV as a lifestyle choice

In the last few years, particularly post the pandemic, biohacking has found purchase with consumers across the world.

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GETTYIMAGES/ISTOCK

There is a lot of research being done now on how to support the body's bioregulatory systems and do away with issues such as neuro-degenerative disorders. This is where the interest in biohacking comes in. The problem arises when this becomes a business. Doctors are wary because the idea is oversold, and the promises being made are not in keeping with what is happening at a clinical level

MANJARI CHANDRA
Functional nutritionist

Hackers to know

Amazon's Jeff Bezos and Paypal's Peter Thiel have invested heavily in biohacking — Bezos in the "rejuvenation" company Altos Labs, and Thiel in the research of anti-ageing scientist Aubrey de Grey. Meanwhile, Ben Greenfield, a well-known fitness consultant, biohacker and triathlon runner from the U.S. — whose clients include Twitter co-founder Jack Dorsey — is planning to collaborate with entrepreneur Mukesh Bansal to set up a chain of biohacking centres in India.

TRIBUTE | 1938-2024

SUDHIR KAKAR, THE ALCHEMIST

Publisher David Davidar recalls his connection with the formidable psychoanalyst and writer, who passed away last week at the age of 86

David Davidar

It's one of the paradoxes of life that in death a person whom one has known well comes alive most vividly in your mind. I hadn't been in touch with Sudhir Kakar for a while, but when I learnt of his death a few days ago, I was immediately transported to the time I published some of his books in the 1990s – and the considerable impact he had on me at the time. Simply put, Sudhir was one of the most original writers this country has produced – an alchemist who fused Western tools of psychoanalysis and scientific enquiry with a deep knowledge of Indian myth, religion, culture, and society to produce extraordinarily insightful books on India and Indians.

I first met him about a decade after he had published his most seminal work, *The Inner World*, a ground-breaking, psychoanalytic enquiry into the infancy and childhood of Hindu Indians, and how it shaped their identity and culture. Ranging widely through myth, folklore, religion, anthropological evidence, history, clinical data, and case studies, it was hailed for its originality and remarkable insights into the Indian psyche. Sudhir was 40 when he published the book, his fourth, an age when academics and serious non-fiction writers are just beginning to establish their reputations but *The Inner World* immediately established him as one of India's most formidable intellectuals. He was sought out and feted around the world – among his admirers was V.S. Naipaul, who told me once that his conversations with Sudhir about India had dispelled many pre-conceptions he'd had about the country and its culture.

Of sex and love

When I met him, I was in my mid-20s, a callow youth who hadn't yet published a single book, but he received me courteously enough in his house in an upscale Delhi neighbourhood. A slim, handsome man, with piercing eyes and a high forehead, he was dressed all in black – a turtleneck (it was winter) and pants – and wore a friendly expression. I'd read his best-regarded books – the aforesaid *The Inner World*, as well as *Shamans, Mystics and Doctors* (an exploration of a variety of Indian healers and healing traditions concerned with "the restoration of what is broadly termed 'mental health' in the West"), and *Tales of Love, Sex and Danger*, co-written with John M. Ross, which examined sex and love through some of the world's most enduring love stories. To my mind, a writer of his stature would gild my fledgling publishing list. However, there was no guarantee that this would happen. Although he had agreed to see me, at the time Sudhir was published in India by the brilliant Ravi Dayal at Oxford University Press and around the world by a host of other equally legendary publishers – including Sonny Mehta at Knopf. Given this reality, I couldn't see why he would choose to place any of his books with an untried publisher, but I needed to try.

Lucid and accessible work

A secondary concern I had was that the books he had published until then were all rather scholarly, and I wanted him to write for the general reader. In any event, our meeting went well, and marked the beginning of a productive publishing relationship and friendship. He brought his great gifts of analysis, scholarship, and expression to bear on a variety of important subjects and published lucid, accessible books on sex and sexuality (*Intimate Relations*), an astonishingly original work on sectarian violence (*The Colours of Violence*), and, unexpectedly, a superb novel (his first – at the age of 60) entitled *The Ascetic of Desire*, about Vatsyayana, the author of the *Kama Sutra* (which classic Kakar translated with Wendy Doniger).

I shouldn't have been surprised by Sudhir's foray into fiction for he wasn't your average scholar or intellectual tucked away in an academic ghetto cobwebbed with op. cits. and ibids. Rather, he was a man who had arrived at his field of expertise through a somewhat twisty path, as was common with bright young things of his generation who had limited career options at their disposal. Sudhir was born into a prosperous upper middle class family (his father was a district magistrate who was posted to a succession of small towns in West Punjab, now in Pakistan). As was the norm, he was expected to study a worthy subject in college, one that would fit him out for a steady if not stellar career. As Sudhir wrote in a revelatory personal essay that prefaced one of his books, he wasn't sure what he wanted to do as a young man, so he went along with his family's suggestion that he become an engineer, and went off to study engineering in Ahmedabad. After he obtained his degree, he sailed to Germany to further burnish his engineering credentials, but it was while he was in Hamburg that he decided the subject wasn't for him. He wrote: "My first actions after I settled into my cheap lodgings in Hamburg arranged for me by the shipyard (where he was to apprentice), was to buy a large bottle of inexpensive red wine, enroll myself in a school for ballroom dancing, start on the first page of a novel, and write to my father that I had no intentions of going further with engineering and would like to study philosophy instead."

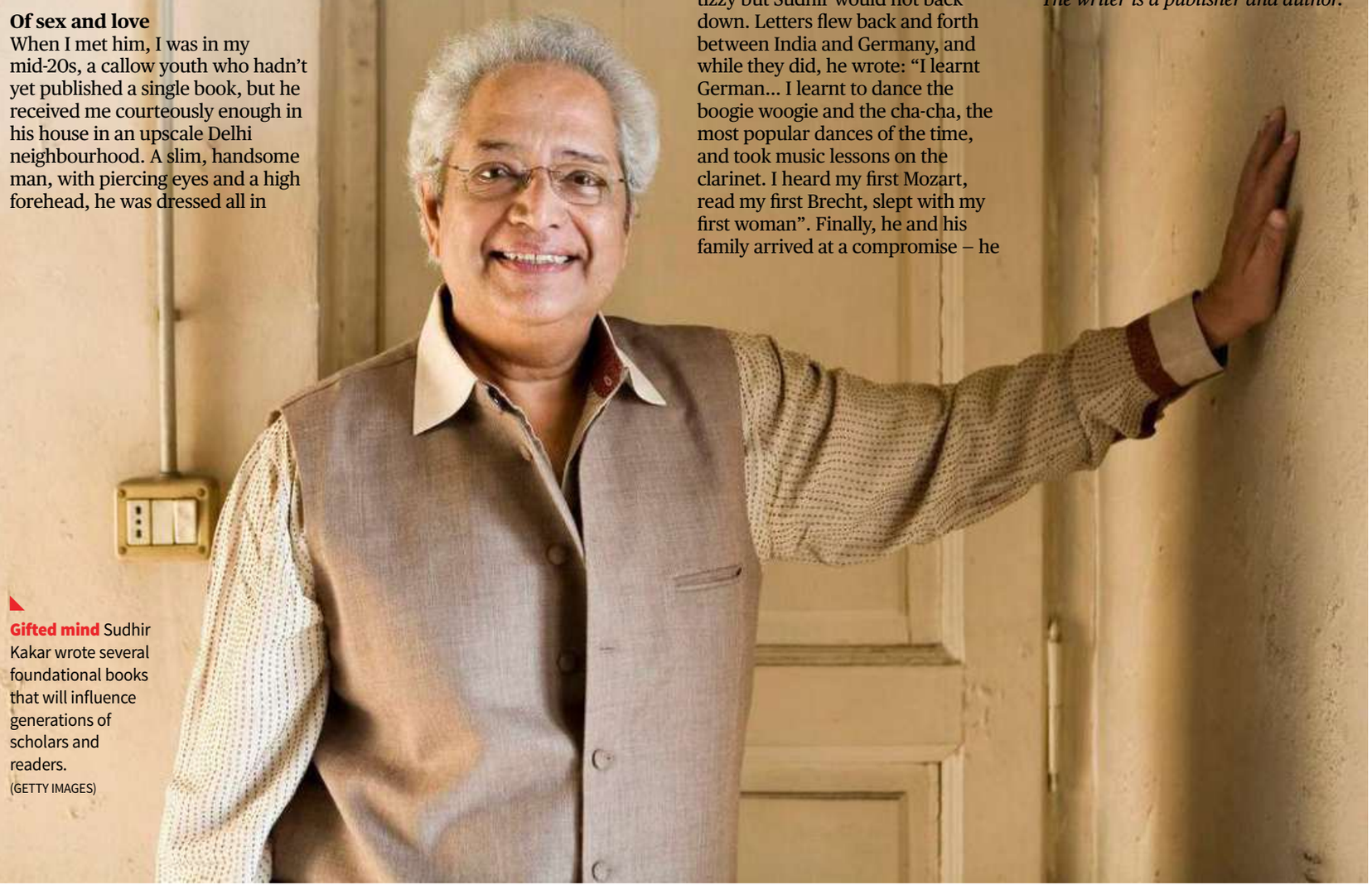
Engineer to psychoanalyst

This missive threw the family into a tizzy but Sudhir would not back down. Letters flew back and forth between India and Germany, and while they did, he wrote: "I learnt German... I learnt to dance the boogie woogie and the cha-cha, the most popular dances of the time, and took music lessons on the clarinet. I heard my first Mozart, read my first Brecht, slept with my first woman". Finally, he and his family arrived at a compromise – he wouldn't need to continue with engineering but would instead study economics. Although Sudhir acquiesced in the decision, he wasn't happy with it. He explained: "I studied economics as I did engineering, with half my mind and with none of my soul. In my youthful affair with the world I needed passion and surprise; engineering and economics had neither."

All of this turmoil would be magically resolved a few years later when he met the man who would change his life and set him on the path to becoming one of our most interesting minds. He met Erik Erikson, the American psychoanalyst of European origin, quite by chance in his aunt's house in Ahmedabad, and was so taken with his genius (this was the man who had invented the term 'identity crisis' so it was quite appropriate that he sorted Sudhir's youthful confusion and 'identity problems') that he decided that "what (he) wanted more than anything else was to work with him as an apprentice and, if possible, learn the psychoanalyst's craft. It became clear to me, as if in a sudden revelation, that he was the guru my Indian self was searching for".

Sudhir would become one of Erikson's most illustrious pupils, and over the course of the next several decades, go on to be hailed as an exceptional writer and thinker, using his powerful intellect and immense curiosity to plumb core aspects of India's psyche. Many of his books were foundational and will influence generations of scholars and readers. He will live on through them and in the minds of those (such as myself) who were privileged to have been part of his journey.

The writer is a publisher and author.



Gifted mind Sudhir Kakar wrote several foundational books that will influence generations of scholars and readers.
(GETTY IMAGES)

GETTY IMAGES

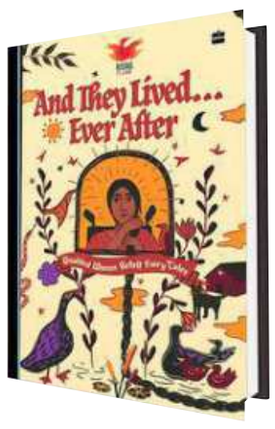
Retelling one fairy tale at a time

This anthology uses fantasy and magical realism to tell different stories of people with disabilities

Nandini Bhatia

Once upon a time, 13 women raised their pens like righteous swords and slayed the vices of the world that sneaked into the noble pages of fairytales. They rewrote fables with fervour and courage and thus emerged their tales of victory – of princesses deaf or blind or in wheelchairs, of neurodivergent ducklings, and forgotten sisters and side characters. Rising Flame, an award-winning non-profit, strives to create an inclusive space for differently-abled women and children – in literature and in life. *And They Lived... Ever After* comprises writing from leading reformists, educators, and advocates from the field of disability.

These stories – some inspired by the writers' own lived experiences – demonstrate that there is no one way of being a human being. Its resilient characters inspire "fresh ways of seeing the world". Hearing-impaired women like Dhwanii can and do love music (in 'Beat-Matching Beethoven' by Parita Dholakia); blind students like Zara can sing and dance in plays ('The Swan in Disguise' by O. Aishwarya); Rapunzel and Snow White do not need knights in shining armours to rescue them; destinies can be rewritten like Niluka Gunawardena highlights in her story, 'Quack'; and ducklings can be adopted by swans because love dissolves all differences as seen in Rakshita Shekhar's rendition of 'The Ugly Duckling'.



And They Lived... Ever After
Rising Flame
HarperCollins
₹399

Changing the narrative

The stories speak to parents, partners, and educators alike. In subtle ways, the stories identify problem areas – shaming, bullying, prejudice, racism – and strive to change the narrative around disabilities, which are typically shown in a negative light. By using multiple voices, especially those of side characters like Cinderella's sister and stepmother or of Rapunzel's guardian/ captivator, or of the mother duck who birthed an 'ugly' duckling, the stories humanise those we presume to be villains, witches, or evil stepmothers.

In a world fixated with limiting people instead of enabling them, this anthology infuses renewed hope in readers. By putting fantasy and magical realism to good use, the book paves the way for a kinder, more accommodating world. If more writers and publishers follow Rising Flame's suit, we will be raising empathetic children in no time; children who can manage conflicted emotions well and accept others for who they are. Soon enough, everyone will have their share of happily ever after.

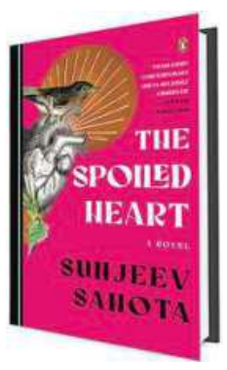
The reviewer is a freelance feature writer.
Instagram @read.dream.repeat

BROWSER

The Meat Market
Mashiul Alam, trs Shabnam Nadiya
Eka
₹499
The leading Bangladeshi writer's stories hold up a mirror to his country and its society. The horrors of everyday reality effortlessly veer into the realm of the surreal, allowing the reader to cope and even escape.

Coins in Rivers
Rochelle Potkar
Hachette India
₹450
Potkar's poetry springs from the deeply personal and moves out into the world. A meditation on womanhood, motherhood and citizenship, these poems encompass a gamut of emotions, from love to grief to anger to defiance.

The Spoiled Heart
Sunjeev Sahota
Penguin Hamish Hamilton
₹699
The two-time Booker Prize nominee's latest revolves around Nayan Olak, who loses his family in an accident and subsequently, makes the local labour union the centre of his life. But when he comes across Helen Fletcher, who has moved into a house at the end of his lane, he's drawn to her.



Crooked Seeds
Karen Jennings
Picador India
₹499
When Deidre finds herself back in Cape Town, her days are spent in squalor — water is rationed and must be collected from trucks each day, the consequences of apartheid are apparent all around. A long time ago, she lost her leg in an explosion in this very place, and coming back to her family, society and history is fraught.

Feelings in sport

Nandan Kamath lays bare the fine print that shadows sport, from individual brilliance to branding

K.C. Vijaya Kumar
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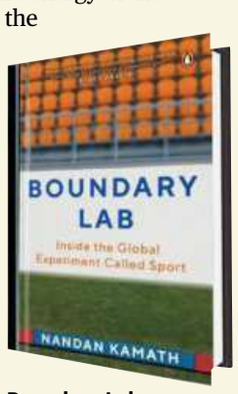
Sport is never just about sweat and skill visible on the turf, it is also about history, society, logistics and obviously involves a lot of thought. The back-story is as important as the one that is visible to us and over the past few years many writers have attempted to dissect the elements that constitute sport, both as an athletic endeavour and as an object of viewing pleasure.

Stephen Mumford's *Watching Sport* and closer home Binoo K. John's *Top Game* have all been wonderful accompaniments that aid in the deciphering of sport at many levels. In this list of 'prise-open-sport-and-you-will-be-rewarded' ventures, Nandan Kamath hustles in with the energy of the junior cricketer he once was and the lawyer and sports entrepreneur that he is now.



Boundary Lab
Nandan Kamath
Penguin/Viking
₹799

Game, set, match

The result is a weighty book, *Boundary Lab*, in which Kamath throws light on skills, commerce, individual brilliance, team solidity, corruption and lays bare the fine print that shadows sport. At its base, the book dwells on why we play sport, watch sport or do both. "The aesthetic appeal of sport provides its own unquantifiable, but very real benefits. Watching an artistic gymnast or a stylish batter provides pure pleasure," the author writes in the initial pages.

Sport is also quirky, as a wide ball in cricket or a missed penalty in football may alter fortunes inexorably and Kamath writes: "The test is whether it is the basket of skills or the bouquet of chance that is predominant in determining the outcome of the game." Like in life, the 'what-if' question is intrinsic to all sports fans as frothy brews get spilled and angst ripples during many watering hole conversations.

Like the great Philip Kotler's musings on marketing, Kamath gets into the branding space and holds forth: "Markets and economies have grown around the identification, development and marketing of athletes, the hosting of events, the communication of sports content to spectators and viewers, and the engagement of fans." The author also dwells on whether India should bid for the Olympics and as the book winds to a close, there is enough food for thought.

A PEOPLE'S SCIENCE MOVEMENT

Prabir Purkayastha on why social control of major scientific and technological transitions is imperative so that technology serves the public good

Usha Ramanathan

How do we look at science and technology? What role do they play in society, and, equally important, what is society's role in developing science and technology?" Prabir Purkayastha has set down his thinking through his decades as an engineer, social/political activist, as a part of the people's science movement, and of the free software movement. Few engineers and technologists have written about the nature of their discipline, he says, maybe because while scientists of an earlier era were taught philosophy ("At least Einstein's generation of scientists were"), engineers came from trade schools, and worked with their hands. This book is his contribution to the dearth in the literature.

Knowledge as Commons: Towards Inclusive Science and Technology builds on certain core ideas. Here's some of them: while science and technology draw each on the other, the objective of science is to know nature; that of technology to build artefacts and so change nature. To build something in the real world, technologists need to bridge the gap between what is known and what is not. Increasingly, science needs artefacts in order to understand nature: illustratively, the Hadron Collider.

'Runaway technology'

Science and technology are part of a triad, along with society. Technology's choices are social choices, and cannot be left to a technocratic elite. It is why we need a people's science movement, demystifying science and technology choices. Social control of major scientific and technological transitions is imperative so that technology serves the public good and is kept away from doing harm. The destructive potential that has been unspooling since the industrial revolution, as also modern warfare, has brought us to the precipice, where runaway technology – and he invokes nuclear weapons, climate change from greenhouse gases, biological weapons – could "destroy the world as we know it." Maybe this would have sounded hyperbolic a few decades ago. Not today, when there is a serious knocking together of heads to consider if the Holocene epoch – which was marked by human occupation of the earth – had to give way to the Anthropocene, signifying human impact on the planet: a euphemistic way to speak of the destruction humans have demonstrated the ability to cause. For the moment, the geologists have shelved the idea, but that this is even being seriously considered should give us pause.

'The commons movement'

Scientific and technical knowledge is "universal labour"; the 'commons movement' in science is not only about the reproduction of the rights to knowledge, but also on how science is to be produced, as an open and collaborative exercise. The idea of the commons meets the force of corporate self-interest, and what we have is a patenting regime that supports private appropriation on a grand scale, of both "biological and knowledge resources held in common by society." This now extends, for instance, to patenting of life forms, genetic resources, genetic information in life sciences. This property regime in knowledge should seem incredible, but it has merely got normalised through repetition.

Evoking a sense of foreboding, he speaks of the HIV/AIDS epidemic where what stood between life and death (literally) was Big Pharma's profit. And, as he says, and we saw, COVID showed that this was not an isolated instance. Then there is Nexavar, a cancer drug that Bayer had priced at $65,000 for a course for a year. Addressing it as "theft", this is what the CEO of Bayer said when India made it accessible by bringing it within a compulsory licence: "We did not develop this medicine for Indians... we developed it for Western patients who can afford it."

Knowledge as Commons: Towards Inclusive Science and Technology
Prabir Purkayastha
LeftWord
₹395

The battle over the commons is also a battle of ideology or ideas. He would have us revisit Hardin's 'Tragedy of the Commons' to see how, essentially, it was an ideological attack on the commons.

In a juxtaposition of two ways of thinking, he cites the Nobel laureate Elinor Ostrom when she speaks of the irony that the infinite commons of knowledge are treated as if they were finite, while the finite commons of air and ocean are treated as if they were infinite.

India's scientific advances

In exasperation at political personages making claims about science in ancient India, he produces an interesting chapter on the actual advances India made in medicine, surgery and mathematics. He debunks the western claims to being the progenitor of ideas scientific, as he does of the 'white man's burden' while exploring the history of India's development of the modern number system and zero.

Purkayastha makes no secret of being a Marxist, although it is not ideology but reasoning with science that moves from page to page. It is difficult not to wonder if these are what have landed him in prison. The book, though, introduces us to a mind that is intelligent and concerned about the state of science in the country. I will leave you with these extracts: "What differentiates a developed economy from a relatively less developed one is its scientific and technological knowledge. That is why the Netherlands is an advanced country while Saudi Arabia with a GDP of similar order is not." And, "confusing history with fantasy also ignores the central division that caused the ossification of Indian science, the separation of the hand from the head."

Think about it.

The reviewer is a Delhi-based law researcher.

INTERVIEW

'Too much pressure to fit in'

Prachi Gupta's devastating narrative also raises important questions on mental health and ways to cope

Roland Mascarenhas

Leo Tolstoy's quip, "All happy families are alike; each unhappy family is unhappy in its own way," is frequently cited by the literati. Prachi Gupta, a 30-something Indian American writer, nods to this. Raised with a doctor father, a tender mother and a gifted brother in a quintessentially suburban life, Gupta unveils what really goes on behind closed doors, be it mental health afflictions, verbal and physical abuse; all with the possibility of looming – though unexpected – deaths making an appearance.

Her memoir, *They Called Us Exceptional and Other Lies That Raised Us*, was based on an essay she wrote in 2019, and her struggle to make sense of the death of her brother, with whom she shared an on-and-off companionship. The expansion into a book includes a wider lens of her upbringing in America and emergence into young adulthood – including romantic relationships, career changes, family dynamics – with further analysis. Edited excerpts from an interview.

Question: *Why write a memoir?*
Answer: I never really wanted to write a memoir. I dreamed of writing fiction. But in 2017, my brother Yush died. We had been best friends for most of our lives, but at the time of his death, we had been estranged for about two years. In my grief, I had to understand how he died, and what any of us could have done differently to save him.

Q: *You acknowledge potential blowback for airing family challenges.*
A: I agonised over whether or not to write this book. But I kept coming back to the belief that if a book like this had existed for my family when we were younger, maybe things could have turned out differently.

Q: *You mentioned growing up in a predominantly Caucasian community impacted your self-perception, even calling yourself "ugly" for your curly hair and other Indian traits.*
A: This is unfortunately a very common experience for anyone who grows up in an environment where they do not match the image of what the dominant society or mainstream culture idolises as beautiful or desirable.

I still struggle with it sometimes, but certainly the media landscape in America has changed a lot from the 1990s. And, more holistically, as I reached my 30s, I began to deprioritise "fitting in". Now I am so grateful for the traits that I have inherited from my ancestors.

Q: *Without giving too much away to our readers, your father seems to haunt the book.*
A: I think most of us know what it's like to love someone deeply who also hurts us deeply. I wanted to show how this push-pull dynamic unfolds, how it feels, and the choices it forces us to make.

When we send children or partners the message that they must sacrifice themselves to keep the peace for the sake of the family unit, we are actually enabling pain and dysfunction that caused the initial rupture, and deepening our sense of isolation.

Q: *Much of your relationship with your father appears to be an environment of consistent instability. How did you cope?*
A: From a very young age, I kept a journal and I immersed myself in art. Art gave me a sense of purpose at a very early age. I felt there was something vital to creating.

My dad gave me every tool to succeed in the world. But as I grew up and tried to fit the mould of the daughter I thought he wanted, my creativity dried up. I stopped drawing and writing. I graduated college, went into management consulting, got engaged to a doctor. I was conventionally successful. But I realised that I was miserable, and I saw that despite all that they had achieved, my brother and my father were miserable, too. They both attempted suicide within months of each other, and I was worried that I was heading down that same path. I decided that I needed to change my circumstances and go follow the impulse to create again.

Prachi Gupta
(SPECIAL ARRANGEMENT)

Q: *What has the response been like?*
A: I think the most surprising thing is how many people around the world can see themselves in my family's story. Also, my Dadaji died last winter, just months before the book was due out, and he was so excited for it. He understood that I was going to tell the full story, and he supported that decision. I drew a lot of inspiration and courage knowing that I had his support.

They Called Us Exceptional and Other Lies That Raised Us
Prachi Gupta
Penguin Random House
₹550 (Kindle)

If you are in distress, please reach out to these 24x7 helplines: KIRAN 18005990019 or Aasra 9820466726.

The interviewer is a freelance writer and HR consultant based in Mumbai and Toronto.

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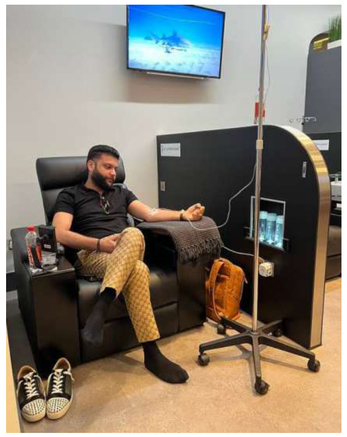
In India, it has found its most obsessive followers in metros such as Delhi and Mumbai, where money is abundant and wellness is the latest buzzword. Biohacking is slowly making inroads into Tier II and III cities too, courtesy a social media-savvy biohacking community.

For Chima, the goal is simple: to be superhuman. In fact, that's the name of his biohacking company, Be Superhuman, under which he plans to launch centres in Delhi, Mumbai and Hyderabad later this year; he already has two centres in London. In the next few years, he envisions people going to biohacking centres like they would the gym. "Most people who see someone with an IV in their arm will say 'get well soon' because they think they're sick. But going forward, this will be a lifestyle choice."

For others, the induction to biohacking has been more modest. It comes from a place of having exhausted all other options. In the early 1990s, Manish Saraf was an ambitious 19-year-old in Raniganj, West Bengal, with dreams of joining the Army. However, when working out in the gym one day, he was suddenly unable to bend his knees. Slowly, the inflammation spread to his other joints, and he was practically bedridden. On the cusp of 20, he was diagnosed with juvenile idiopathic arthritis, an autoimmune condition, and put on strong medications for life. Far from joining the Army, day-to-day living became a struggle for him. In search of an alternative, around five years ago, he came across the biohacking community through a friend, and was intrigued.



Hunt for longevity (Clockwise from right) Jag Chima; a client undergoing IV therapy; Ennapadam S. Krishnamoorthy; and Manish Saraf. (SPECIAL ARRANGEMENT)

THE RACE TO BECOME SUPERHUMAN

He enrolled in Kochi-based wellness solutions company Vieroots' Eplimo (Epigenetic Lifestyle Modification) programme, which used genetic and metabolic tests to give him a slew of customised health and lifestyle interventions. Saraf was already in remission and had stopped his medication, but within a week of adopting Eplimo's suggestions, he claims all his lingering pain disappeared, too.

Sajeev Nair, founder of Vieroots, is one of the most vocal proponents of biohacking in India. He believes that biohacking ultimately boils down to data and its interpretation. The more data you have on your body's mechanical functions, the more you can optimise the machine that is you. "If you treat ageing as a disease and try to fix that one issue, you may be able to fix many other health and lifestyle problems," he says, emphasising that all interventions should have scientific backing.

One of the premises of biohacking is hormesis – the idea that controlled stress is good for your body. For instance, exercise and ice baths are hormetic stressors that trigger adaptive responses, such as activating antioxidants, which in turn boost resilience. But too much stress, and the body won't adapt; it might even trigger inflammation. Which is why Nair steers people away from blindly experimenting at home. "They should consult experts like us who can guide them correctly." Since it started in 2020, Vieroots has grown from a couple of hundred customers every quarter to 250 every month.

DIY isn't always good

Nair's hacks seem all the more incredible, given that he isn't a doctor by profession; he has done an M.Sc in Analytical Chemistry, followed by an MBA. But this isn't surprising among biohackers. A lot of them have functional medicine practitioners on board (Nair has a functional medicine practitioner with an MBBS, along with a homoeopathic and Ayurvedic doctor), but their own qualifications range from nutrition coach, to gym trainer, to performance psychologist. That's the whole point of the DIY, experimental quality of 'biohacking' – it appears that anyone can do it.

But can they really? Ennapadam S. Krishnamoorthy, a neurologist and founder of Buddhi Clinic in Chennai, observes that with the availability of information online, it is natural to want to be in charge of your own health. But not all interventions are safe. For instance, he gives the example of tDCS (Transcranial Direct Current Stimulation), a technique that uses low level electrical currents to stimulate the brain and is used to treat depression, cognitive impairment and the like. But now, tDCS kits are available online, and biohackers are using them at home for things like sports enhancement and corporate performance. This, says Dr. Krishnamoorthy, can be dangerous as unsupervised use can cause confusion, and actively harm someone prone to seizures. "This is a classic example of technology that, in the right hands, is treatment, but in the wrong can become impairment." He believes that all biohacking clinics should have an allopathic doctor on board, since "it remains the most well regulated form of medicine and continues to be our safety net".

Is everyone jumping on the biohacking bandwagon to make money? Peter Attia, a physician focusing on longevity, is reportedly charging $150,000 for his services. Is the world only meant for the rich? If you can sort out the basics such as fresh air, water and food, we don't need to be talking about all of this

RAJAT CHAUHAN
Sports medicine physician

Perfect or imperfect?

As of now, India has no regulations that directly govern biohacking. In 2016, the FSSAI (Food Safety and Standards Authority of India) came out with a set of regulations for nutraceuticals, though their implementation remains doubtful. The CDSCO (Central Drugs Standard Control Organisation) too has guidelines around the production and distribution of biological products, including vaccines and gene therapies, but this hardly covers the entire gamut of biohacking activities.

Critics would argue, and rightly so, that research around the efficacy of biohacking remains shoddy. Do nutraceuticals make you healthier? Do blood transfusions make you younger? There is no conclusive evidence to suggest so, and experiments by the Bryan Johnsons of the world prove nothing. In fact, in many cases these experiments can do real harm. Take the case of Jo Zayner, an American biohacker who has experimented with editing his own genes and now runs a company that sells CRISPR kits, which allow you to edit your own DNA – a dangerous practice that can lead to life-threatening mutations.

At its best, biohacking is about taking control of your own health, but at its worst, it can veer into pseudo-scientific peddling that does more harm than good.

Jacob Koshy
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Buzzword (L to R) Meta CEO Mark Zuckerberg; scientist Venki Ramakrishnan; tech entrepreneur Bryan Johnson; and Amazon's Jeff Bezos. (GETTY IMAGES)

IN CONVERSATION

IS IMMORTALITY POSSIBLE?

Nobel laureate and molecular biologist Venki Ramakrishnan discusses why death is inevitable and how techno-fantasies of living forever are scientifically unfounded

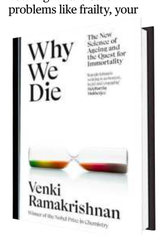
Nobel Prize-winning molecular biologist Venki Ramakrishnan, in his new book *Why We Die: The New Science of Ageing and the Quest for Immortality* (Hachette India/Hodder & Stoughton), says that while we better understand, at a biological level, the causes of ageing and death, we are far from major breakthroughs. With several technology mavens, including Amazon founder Jeff Bezos and Facebook creator Mark Zuckerberg, investing millions in ageing-related research, and many others self-experimenting with supplements and therapies to halt ageing, the field is generating great interest among people of all ages. However, much of this doesn't yet have the sound backing of scientific validation, says the U.K.-based Ramakrishnan, 72. Edited excerpts from a Zoom interview:

Question: *After your last book,* Gene Machine, *a memoir and your own investigation into ribosomes, what made you focus on ageing and longevity?*
Answer: Humanity has wondered for a long time about why we die and what limits lifespan. We're probably the only species that knows about our mortality. We know that because we have developed language and ability to communicate and ever since, humans have wondered about mortality. This is an existential question. It is only in the last 50 years that we've come to grips with the underlying biology of why we age and what eventually causes death. A lot of things are happening in the field. At the same time, there's also an enormous amount of hype in the field because there's a lot of private investment. There are people who want to extend lifespan. Societies are growing older around the world. So, I wanted to discuss all that and felt there was a need for someone who's a molecular biologist but who also doesn't have a vested interest in the field. My work on protein synthesis is related to one of the central causes of ageing. So, you can think of me as somebody who works in an area close to ageing, but I don't work on ageing myself. That also makes me less, I would say, ideological or biased.

Q: *You mention how there's huge private investment (in arresting ageing) and how several (Silicon Valley) tech billionaires are interested. Is this historically unprecedented?*
A: There are now about 700 companies, start-up companies, which tackle different kinds of longevity research. And, you know, many tens of billions of dollars. People will say that's a very small fraction (about 1%) of the research enterprise. But I would say, in terms of increase in investment and in absolute numbers, it's still quite a large amount. Having so many people suddenly interested in 'solving' ageing is unprecedented because for a long time, ageing was considered a sort of backwater in science. I think that has changed over the last maybe 30 or 40 years. Part of the reason is that the [developed] world is facing an ageing population. India is an exception in that it still has a relatively young population. But as life expectancy increases in India, it too will face the same problem that all countries go through as they develop, which is that as people start living longer, fertility rates go down and you're left with a different [population] distribution. And so, there's a real need to make sure that people are healthy when they age. If they're not healthy, it will impose huge burdens on the rest of society because there'll be an increasing fraction of society that needs care. So there's a lot of incentive for governments and others to invest in ageing research. It's not just these billionaires who are afraid of getting old.

Q: *There seems to be this obsession with trying to be younger as you age. You give the example of Bryan Johnson (American tech-millionaire) who does blood-plasma transfusions, including from his 17-year-old son. What's the scientific basis for that?*
A: Being healthy when you're old is almost the same thing as being young because you're eliminating the problems of being old. But in terms of *morbidity and mortality – would that mean a long healthy life where you suddenly drop dead one day? Would that be an ideal state to steer medical research towards?*
A: Possibly, but not necessarily. In the book, I quote the scientist S. Jay Olshansky, who calculated that even if you eliminate all the chronic diseases of old age, you would only gain maybe 15 years, on average, of life. This has to do with the fact that there are natural biological processes that break down and eventually hit against our natural limit of 120. So, to tackle those, you have to tackle the fundamental causes of ageing itself rather than these diseases. I think it's not clear that you can simply engineer this away. I also don't know if you can improve healthy life by, say, eliminating many of these diseases, or if you would have a sudden decline or whether you would simply postpone a gradual decline. You might have other problems like frailty, your immune system gradually deteriorates, your muscles deteriorate. So, it might happen gradually anyway. The only thing I can say is that there are these examples of super-centenarians, people who live to be over 105 or 110, who apparently will have a very, very healthy life for most of their lives and then rapidly decline before they die. So, at least there are some individuals who have managed this ideal life where you are healthy and then suddenly decline. But how to make that generally possible in everyone, I think that's an unsolved problem.

Q: *Would a world where people routinely live healthy lives of 120 or 130 years be a desirable world?*
A: If we all lived to the natural limit of our biology, which is 120 years or so, I would say who am I to argue against it, because we've already lived twice as long as people who lived 150 years ago. I think living extremely long lives, where we want to live beyond the 120-limit, would lead to a weird and stagnant society. We are having a much slower turnover between generations than we did before, so it will be a different kind of society. That's also assuming that your brain stays sharp and aware, and that's not a solved problem. The whole problem of cognitive decline and dementia is going to be a very hard problem to solve, even with modern tools. Neurons don't regenerate. We can regenerate other tissues, like the liver and blood cells. Regenerating the brain is not in the realm of possibility right now. Living with cognitive impairment isn't desirable and this will impact the kind of societies we live in.



GREEN HUMOUR

Rohan Chakravarty

INTERVIEW

Aswathy Gopalakrishnan

'I AM A GREEDY ACTOR'

Manisha Koirala, the star of Sanjay Leela Bhansali's *Heeramandi*, remains hungry for challenging roles, but is otherwise happy staying away from the limelight

New world Manisha Koirala plays the head of a glamorous house of courtesans in pre-Independence India in the upcoming web series *Heeramandi*; (far left) with the director and co-stars of the show. (SPECIAL ARRANGEMENT AND GETTY IMAGES)

Manisha Koirala claims she is a slouch on any ordinary day. "I can't sit upright!" she chuckles. On the other end of the Zoom call, the 53-year-old actor appears relaxed, her hair tied back in a lazy bun, her eyes filled with warm candour behind her oversized spectacles. It is in stark contrast to Mallikajaan, the head of a glamorous house of courtesans in pre-Independence India, the character Koirala portrays in Sanjay Leela Bhansali's ambitious project *Heeramandi: The Diamond Bazaar*. The web series, releasing on Netflix on May 1, is her second collaboration with the filmmaker after the iconic *Khamoshi: The Musical* (1996).

One of the biggest Indian movie stars in the 90s, Koirala has essayed several unforgettable characters in films like *1942: A Love Story* (1994), *Bombay* (1995), and *Dil Se..* (1998). After a tumultuous battle with cancer and a slew of personal issues, she slowed down in the last decade, appearing in only a handful of films, yet not failing to surprise the audience, as she did with Dibakar Banerjee's superb short film in the anthology, *Lust Stories* (2018). "I want to go beyond what I typically get," says Koirala of her ambition as an actor. Edited excerpts:

Question: *Has your approach to acting changed over the years?*
Answer: When I was younger and working in song-and-dance movies, portraying the typical Bollywood heroine, I could rely on my instincts and go with the flow. If a film required me to rehearse, I did that. For *Khamoshi*, I spent a couple of months learning sign language. Now, I am in that stage where I feel method acting works for me. I want to be mentally, emotionally and physically well-prepared for a role. Since I do not take up many projects now, I have the time to do that.

Q: *How did you prepare for* Heeramandi?
A: I realised I could not be Manisha Koirala for one bit – I am lazy and tomboyish, and care two hoots about body posture. My whole demeanour had to be different. So I took inspiration from my grandmother, a Bharatanatyam dancer, and my mother, a Kathak dancer. Growing up in Varanasi, I have seen many classical dancers and musicians. To become Mallikajaan, I remembered and collected all these details. I developed an emotional, mental and physical language. Sanjay and his team had already created her external world through extensive research. As an artist, I just had to follow his lead and fit into that world. Sometimes, he would correct me, "You are not Gayatri Devi, you are the head of the Kotha!" pointing out that I was being too feminine.

Q: *In this phase of your career, what are the roles you think of as difficult?*
A: I love difficult. I am a greedy actor. I want to go beyond what I typically get. I follow world cinema, and when I see a great performance, I think 'Oh, I want to do that'. In my 20s, I watched one of my first Broadway shows – *Miss Saigon*. I was in awe of that central performance. I love Meryl Streep in so many films. I love films of Wong Kar-wai and Almodovar.

Q: *You and Sanjay Leela Bhansali go back a long way. What is your perspective on his career trajectory?*
A: Sanjay is a filmmaker who has such a splendid career arc. We did *Khamoshi*, a beautiful, simple and yet profound film. Two years ago, *CODA*, a European film that narrated the same story – the one he wrote 28 years ago – won at the Oscars. His characters are so complex and layered. They undergo conflicting emotions, neither black nor white.

Q: Heeramandi, *like* Bombay *or* Dil Se.., *engages with the idea of nationhood. What is your take on it, especially since we are now witnessing a surge of nationalist and propaganda films in Bollywood?*
A: I am not in a position to comment on this topic. I would stay away from controversy as much as possible. Nationalism is important. Propaganda, I think, is the wrong term. You should be proud of who you are. Your heritage is where you stand. Everybody is entitled to their own opinions about it.

Q: *Your career has been through multiple breaks and upheavals. Where do you aspire to go from here?*

The battle with cancer made me think of my mortality. After that, I wanted to slow down. As an actor, I have had a rich journey, and my heart is full. If a filmmaker I truly trust offers me something exciting, I will take it up in a heartbeat. Otherwise, I am happier doing nothing

A: The battle with cancer made me think of my mortality. After that, I wanted to slow down. As an actor, I have had a rich journey, and my heart is full. If a filmmaker I truly trust offers me something exciting, I will take it up in a heartbeat. Otherwise, I am happier doing nothing. I will travel, read, do organic farming, hike, and live away from the limelight.

Q: *The Internet has completely transformed celebrity culture. How do you deal with social media, promotional interviews and airport looks?*
A: I do my best to adapt to the new generation. [Laughs] I could probably write a comedy about an actor from the 90s trying to fit in with the latest trends, like the airport look, only to realise that she is a misfit. She will try hard, thinking, 'Oh, this must be how it works', and fail miserably. After a lot of stumbling, she concludes: 'Okay, this is me, this is how I am going to be!' because authenticity is what really matters.

Q: *You have dabbled in film production earlier. Do you wish to make another film?*
A: Producing the film [*Paisa Vasool*, 2004] was a traumatic experience. I was too naive; I did not realise what it takes. Somehow, we managed to pull through. I never produced a film again because I lost money on *Paisa Vasool*. I also realised that film production entails certain areas I do not want to be involved in. But times have changed. The industry is much more professional now. One does not have to go door-to-door to find distributors or deal with all the hurdles that I went through. If I get into production again, it will be well-planned and thought out.

The interviewer is a film critic and independent researcher.

Watch | Manisha Koirala in conversation on **magazine.thehindu.com**

Long wait Civil Services aspirants outside an examination centre in New Delhi. (GETTY IMAGES)

POP-A-RAZZI

Aspiring to be Ambani

Whether one hopes to join the Civil Services or become a billionaire, the real prize is the wealth of happiness

India's steel frame is feeling rattled. Sanjeev Sanyal, economist, author and member of the Prime Minister's Economic Advisory Council, recently said, while every country needs a bureaucracy, "lakhs of people are spending their best years trying to crack an exam where a tiny number of a few thousand people actually are going to get it".

And when they do get it, large parts of the job are "dull and boring" because it is all "about passing files up and down".

That has raised some civil servant hackles.

Yet, Sanyal is hardly the first to say this. In Upamanyu Chatterjee's famous novel *English, August*, the young protagonist, Agastya, thinks he's leaving his listless upper-class life for a more "meaningful context" when he joins the Civil Services. He is told by a mentor: "In my time I'd wanted to give this Civil Services exam too, I should have. Now I spend my time writing papers for obscure journals on L.H. Myers and Wyndham Lewis, and teaching Conrad to a bunch of half-wits." But Agastya quickly finds his Civil Services life in the "real India" is a morass of mindless masturbation and marijuana.

Sanyal has been accused of elitism – dismissing the dreams of those from Tier II and Tier III towns where many civil servants come from these days. Sanyal has said he was not disparaging the service, just wondering whether it was worth spending the best years of one's life doggedly trying to crack the examination, over and over again.

He called it a "poverty of aspiration" and wondered: "At the end of it, if you must dream, surely you should dream to be Elon Musk, or Mukesh Ambani, why did you dream to be Joint Secretary?"

Only Sir Humphrey Appleby, the bureaucrat of *Yes Minister* television serial fame, might have an answer to that. But what is interesting is how neatly the old holy trinity of the IAS officer, doctor and engineer has been replaced by new icons such as Elon Musk and Mukesh Ambani.

There is nothing wrong about aspiring to be billionaires. Millions of people surely do. But Musk and Ambani are essentially cut from the same opulent cloth. We have just replaced one straitjacket of ambition with another. *English, August*'s Agastya is told: "For most Indians of your age, just getting any job is enough. You were more fortunate for you had options before you."

Trapped in a box

It turns out there weren't that many options after all when it came to dreaming. If the old India had dreamed of a "stable job", this new one is being told to dream of being billionaires. One box has replaced the other but we still do not dare to dream outside the box.

Responding to Sanyal's remarks, his namesake, Sanjeev Chopra, a former IAS officer and Festival Director of Valley of Words, wrote that had he not joined the Civil Services, he might have chosen a career in media or academia. "Would that make my contribution to the nation any less?" he wondered. "Others may want to pursue different professions – law, architecture, software, and so on. Why this obsession with 'wealth creation' and maximising shareholder value?"

I have a close friend who is a very successful neurosurgeon. He was a good student but not the best student in class when we were in school, but over time he has excelled in his field. His name pops up in the Best Surgeon lists routinely. He could rest on his laurels now. Yet, he is working even harder than before to set up his own start-up that could revolutionise brain cancer diagnostics by making the procedure minimally invasive. I do not think it's because he wants to be the next Ambani in his field. He does it because he has a dream to make a difference and one life to do it in. When I hear him talk excitedly about tumours and technology, most of it goes over my head. What I understand clearly though is the excitement in his voice. He sounds frazzled but happy.

The true jackpot

We want to be rich or famous or successful or first in class. But in the end, what we really keep hoping is that all of those will make us happy. The real jackpot for any of us is to be contented with what we are doing, whether that's building a business empire, setting up a shelter for stray animals, drawing cartoons or being a librarian somewhere. In all this discussion about the poverty of aspiration, we routinely forget to talk about the wealth of happiness.

That's why when we bless someone, we often say, 'Live long. Be happy'.

And you don't have to be a Musk or Ambani or doctor-engineer-civil servant for that.

***Sandip Roy** is the author of* Don't Let Him Know, *and likes to let everyone know about his opinions whether asked or not.*

PERSON OF INTEREST

RAHUL SONPIMPLE: LOVE AND POLITICS

The political commentator and founder of All India Independent Scheduled Castes Association says that society wilfully ignores the everyday reality of caste

Grassroots voice Caste works largely as a political economy, says Rahul Sonpimple. (SPECIAL ARRANGEMENT)

It was at Jawaharlal Nehru University (JNU) that Rahul Sonpimple saw first-hand the diverse icons that people across the country associated with a legacy invisible in the mainstream. At a hostel dance, friends from Punjab introduced him to Amar Singh Chamkila, one of India's greatest folk music performers on whom the latest Imtiaz Ali movie is based. Those from Uttar Pradesh spoke of Maharaja Bijli Pasi, the Dalit king who ruled parts of that populous state. Shailendra, the famous Scheduled Caste lyricist who was a staple in Raj Kapoor movies, was an icon among students from Bihar.

Sonpimple's influences from Maharashtra, where he grew up, included heroes such as social reformer Gadge Maharaj, educationist Jai Bai Chaudhary, Vitthal Umap, who died singing about Ambedkar at Deekshabhoomi in Nagpur and, of course, Savitribai Phule. "Though she was always an icon on the ground, back then Savitribai was not that well known in popular culture. There was no Google doodle of her," he said.

Sonpimple, 35, who founded the national grassroots movement All India Independent Scheduled Castes Association (AIISCA) last year, is seen as one of the most original political commentators today. "The question of representation has become the counterpoint of anti-caste discourse, but that is a false discourse," he said. "Caste is not simply a behavioural problem, touch or un-touch, caste works largely as a political economy. It has become part of modern institutions."

Going backward

Some questions he asked – and answered – in the course of our conversation: why did the makers of *Dahaad*, the series that told the story of real-life serial killer Cyanide Mohan, the son of daily-wage workers in Karnataka, change the murderer's caste? Why do so many Dalit authors write similar-sounding memoirs? Why did more "leftie" friends in Delhi know about the Mughals than about the Bhil or Pasi empires?

Untouchability may be a crime according to the Constitution but Sonpimple believes that India ignores the everyday reality of caste. "The government has campaigns to end polio and control the spread of HIV," he said. "But tell me one campaign to end the caste system? There's a deliberate postcolonial upper caste-cultivated collective consciousness that's not simply about denial but that says invisibilise it, and in such a way that it is a conscious act of denial."

Sonpimple said things have gone backward for the community in the past decade. "The SC community has returned to the same situation we were in 50-60 years ago. It's worsened because the government has privatised so much and the state has declared that there will be no welfare policies or measures," he said. "The only thing we will give you is 5 kg rice to survive." He pointed to the absence of government intervention that once aided in the creation of a generation of Dalit officers and engineers.

Formative influences

Sonpimple, the middle son of five whose father was a rickshaw puller and mother, a construction worker, grew up in a Dalit Buddhist slum in north Nagpur. Some of his friends from that time lost their lives to violence, liquor, suicide. After a paralytic attack, his father, a rationalist who named his sons after characters in Buddhist literature, was bedridden but read his son stories of Ravidas, Kabir and the Buddha in Hindi and Marathi. "He would also help with my homework, I don't know how much he studied, my parents have no school certificates, but he could read and understand very well," he said.

Sonpimple's home city Nagpur has strong links to Ambedkar. He grew up in an alternate culture where festivals such as Buddha Jayanti were robustly celebrated, a world where young men were pushed to pursue science, and where merit lists, even today, often feature Scheduled Caste students. Like others around him, he studied at the Ram Manohar Lohia public library for competitive exams until a friend told him about the Tata Institute of Social Sciences (TISS). That's where he got his master's degree in Dalit and Tribal Social Work and also where he met and fell in love with a kindred spirit, Prachi. They had an intercaste marriage a few years later.

Love played a role in changing the course of his life. If it weren't for Prachi, Sonpimple would have continued at the Institute for Rural Management in Anand, Gujarat, where he worked for three years after graduating from TISS. He would likely have ended up in the cooperative sector or as an employee in the CSR department of a company.

But long-distance relationships are stressful and Sonpimple decided to move to JNU to complete his Ph.D and be with Prachi. That was in 2015. In February 2016, the Delhi police arrested JNU students Kanhaiya Kumar and Umar Khalid for sedition. That was also the year Sonpimple stood as the Birsa Ambedkar Phule Students Association (BAPSA) candidate against a now united left front and a candidate from the right. He was popular but the united left won. Campus politics had changed, and so had Sonpimple.

__Priya Ramani__ is a Bengaluru-based journalist and the co-founder of India Love Project on Instagram.

GOREN BRIDGE

Playing safe

East-West vulnerable, North deals

Bob Jones

Today's deal is from a rubber bridge game, where overtricks are of little importance. South bid three no trump as a choice of games in case North had raised on three-card heart support. Holding four-card support, North corrected to four hearts.

Dummy's nine of clubs surely meant that the 10 of clubs lead was from a short suit. South's first instinct was to take the trump finesse, but he saw that his contract would be in danger if the finesse lost. West might get a club ruff and there might still be two diamond losers, or East might hold the ace of diamonds and the defense could get a second club ruff. South decided to take some precautions.

After winning the opening club lead, South cashed the ace of spades, led a spade to dummy's king, and ruffed a spade with the jack of hearts. He then led a heart to dummy's ace and a low heart from dummy, unblocking the queen from his hand when East played the king. East duly gave West a club ruff, but West then had to choose between yielding a ruff-sluff or leading a diamond. 10 tricks either way after a well-played deal.

Note that had West started with three hearts to the king and the ace of diamonds, there could be no club ruff. Should East hold the ace of diamonds, the defense might get a club ruff but no more after that. Well played!

NORTH
♠ K 6 3
♡ A 10 9 5
◇ 7 2
♣ A Q 9 2

WEST
♠ J 8 7 5
♡ 7 4 3
◇ A Q 10 9 6
♣ 10

EAST
♠ Q 9 4 2
♡ K 2
◇ 8 4 3
♣ 8 7 5 3

SOUTH
♠ A 10
♡ Q J 8 6
◇ K J 5
♣ K J 6 4

The bidding:

NORTH	EAST	SOUTH	WEST
1♣	Pass	1♡	Pass
2♡	Pass	3NT	Pass
4♡	All pass		

Opening lead: 10 of ♣

QUIZ

Easy like Sunday morning

What has April 28 ever given us?

Berty Ashley

1 On this date in 1902, at 10:40 am, a significant moment in time passed. Using the ISO 8601 standard year zero definition for the Gregorian calendar (which was preceded by the Julian calendar), since the start of January 1 of year zero, a certain number of minutes had passed. The next time this will happen will be in the year 3804. How many minutes had passed till 1902 years?

2 Born this day in 1916, Ferruccio was an Italian winemaker who also made tractors, and who, with the profits, bought a few Ferrari cars. Their sub-standard after-sales service and the dismissive nature of Enzo Ferrari prompted him to start a company of his own and make exotic cars. Starting it in his family name, he chose the logo of a raging bull to counter Ferrari's prancing horse. What company is this, known for its sleek cars?

3 On this day in 1923, this stadium was opened and eventually became the world's most famous football stadium. Over the years, it has also been the venue for iconic events such as the 1948 Summer Olympics, the first WWF Wrestling Summer Slam outside the US and the legendary 1985 Live Aid rock concert. What stadium is this, named after the park it is built in?

4 Born this day in 1926, Harper Lee was an American novelist whose classic novel focuses on issues of race and justice. The central character of Atticus Finch was based on her own father, who once defended two African-American men in court. The book's title comes from a conversation where Atticus states that it's a sin to kill a particular type of bird, because they simply sing their song and never harm others. What bird is this?

Raise your hands A cheering crowd at the Live Aid concert, 1985. (GETTY IMAGES)

5 On this day in 1937, South African medical researcher Max Theiler developed the 17D vaccine using eggs to culture the virus. In less than two years, over one million people were vaccinated and in 1951 he was awarded the Nobel Prize. The vaccine was against a disease caused by a virus transmitted by the aegypti mosquito. What disease is this, that gets its name from the colour the skin becomes due to liver damage?

6 On this day in 1947, Norwegian explorer Thor Heyerdahl and five crew mates set out from Peru on the Kon-Tiki - a raft made of balsa logs in the exact way the natives once did. He wanted to demonstrate that Peruvian natives could have settled on the islands in the Pacific Ocean, which he did in 101 days. What is the name given to this group of islands, that includes Samoa, Cook and Tonga?

7 Born this day in 1948, Terry Pratchett was an English author beloved for the humour and satire in his fantasy novels. His most popular contribution to the literary world is 41 comic fantasy novels set in a world being carried by four elephants on the back of a giant space turtle. The shape of this planet gives it its name. By what name is this popular series known?

8 Born this day in 1960, Sir Ian Rankin is a Scottish writer known for his crime fiction. He is a major contributor to a genre known as 'tartan noire', with almost all his novels set in a particular city in the UK. Which city does the detective Rebus work in, that is affectionately known as 'Old Smoky'?

9 On this day in 1973, *The Dark Side of the Moon* by Pink Floyd went to number one on the US charts, beginning a record-breaking 741-week chart run. Named after the huge hoardings that run ads, what is this chart called, which is the music industry standard?

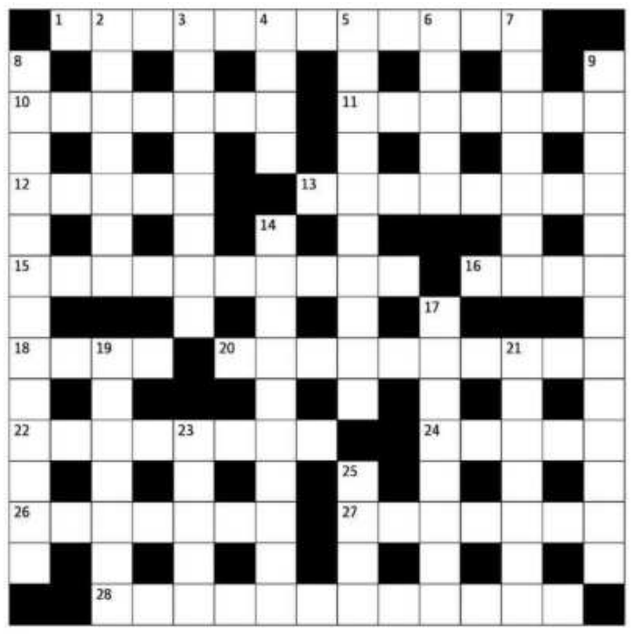
10 On this day in 2021, NASA's Parker Solar Probe became the first spacecraft to cross the critical Alfvén boundary. This is the extent of the atmosphere of a star, also known as the stellar corona, and is considered the outer boundary of the star. What star did Parker cross the Alfvén boundary of?

A molecular biologist from Madurai, our quizmaster enjoys trivia and music, and is working on a rock ballad called 'Coffee is a Drink, Kaapi is an Emotion'. @bertyashley

Answers

1. One billion minutes
2. Lamborghini
3. Wembley Stadium
4. Mockingbird
5. Yellow fever
6. Polynesia
7. Discworld
8. Edinburgh
9. US Billboard chart
10. The sun

THE SUNDAY CROSSWORD NO. 3304



Across

1 Jocose friend trashed United (6,6)
10 Somewhere in Bolivia, personal assistant coming back with illuminating insights (7)
11 One that'll take a drink, or one that's had too many? (7)
12 Joint enterprise finally getting large yield (5)
13 A nasty aquatic creature. One's nature? Drowning animals, primarily! (8)
15 Underlying – put another way, having long-term effect (10)
16 Ribbons arranged, we're told, for fancy man (4)
18 Most common Scrabble tiles gathered, bringing comfort(4)
20 Tries to get a ride from ship's company: it's torturous! (10)
22 Displays gluttony having consumed tea before end of cricketing encounters (8)
24 Fraudulent old girl taking public transport? (5)
26 Ecstasy tablets and C illegally acquired at source in Baltic state (7)
27 Uranium record held by source of wine: cunning! (7)
28 Proved highly amusing? (6,1,5)

Down

2 Taking some cover, Biden poorly estimated risk (7)
3 Wine – cork removed – bravo! (4,4)
4 Tear and shatter(4)
5 Where a nest egg may be found to be at risk (3,2,1,4)
6 Initially chatty, Everyman's accepted by company that's put up with one trying to amuse (5)
7 Quiet, because around the French (7)
8 One-time occupier of dark room who's been relatively immature? (4,9)
9 When graduates trained hoi polloi (5,8)
14 Then where might I have packed those items? (2,4,4)
17 Being twisted, I'll abase Catholic monarch (8)
19 Armpit often seen in leisurewear (7)
21 Arranging – in a bad way – support for masts and sails (7)
23 Feeling fed up with starters of escargots nightly, night in Paris cut short (5)
25 Somewhat nouveau – that includes Iris (4)

SOLUTION NO. 3303

A call for climate justice

The way carbon-disciplining is being imposed today is going to affect poor people and underdeveloped nations unfairly

GETTY IMAGES/ISTOCKPHOTO

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No other crisis in the history of humanity has been as all-encompassing and existentially threatening as the one caused by climate change. The impacts of climate change have already started to unfold all over the world. However, they are mostly seen in fragments and in the forms of natural phenomena such as scorching summers, deadly floods, or fierce cyclones. For ordinary people these events appear to be isolated, regional, and natural, with little scope for human intervention. However, it cannot be denied that climate change is literally fossil-fuelled by human activities, and today it has taken the shape of an impending collective catastrophe.

Efforts are, however, being made through policy intervention and technological transition to arrest the further rise of global temperature and thus to mitigate the impacts of climate change. What receives comparatively less attention in our response to climate change is the concern for social justice. Anything that is directly or implicitly linked to collective life and well-being cannot afford to overlook its relation to social justice.

The concept of social justice is based on the idea of just and fair treatment of all the members of the society. In practice, social justice is understood as a social arrangement which ensures that everyone in the society has equitable access to resources, rights, and opportunities. Nevertheless, the real world is replete with discriminations and inequalities which find myriad manifestations in our everyday life.

The question of social justice in the context of climate change becomes more significant not only because it exacerbates existing inequalities, but it can also give rise to new forms of inequalities and injustices. We have already witnessed that climate change made the competition for resources fiercer and its impacts are felt disproportionately within a nation and across the nations. Poor, vulnerable, and marginalised people are the first and the worst victims of this competition. It may unleash a kind of social Darwinism by making the prevailing inequalities starker. Those who fail to cope with or are less equipped to adapt to these changes may eventually get perished. Nevertheless, it should also be acknowledged that climate change is neither purely natural as it seems nor is it guided by the Darwinian principle of natural selection. Rather its anthropogenic character should make us understand climate change – both its causes and effects – in the context of social justice.

Living on the edge

Climate change will accentuate the existing inequalities further, especially the economic one that divides the world into rich and poor. Poor people lack the means to withstand the changes triggered by climate change. Economically, socially, and even geographically they are placed in a far more vulnerable position with far greater exposure to the impacts of climate change. Climate change will lead to their further impoverishment, leading to more social unrest. Frequent and violent civil wars in African countries witnessed in recent times are not solely motivated by political dominance; climate change-induced insecurity of life and livelihood is one of the major contributing factors. What is ironic is that the people who are going to be the worst victims of climate change are the one who had contributed the least to its causes. Historically, poor people or the poorer countries emitted lesser amount of carbon than the developed nations which prospered at the cost of the environment. But now the way carbon-disciplining is being imposed, it is going to affect the poorer people and nations unfairly. However, this does not imply that poorer nations are to be allowed to emit their share of carbon into the environment. What is needed is sincere attention to the question whether climate action is leading to social injustice by unfairly punishing some people for the "misdeeds" of others, whether the victims of this injustice are properly listened to and helped out.

The clamour for climate justice, therefore, rightfully emerges as a legitimate demand. Climate justice shifts our focus from identifying climate change with rising temperature and melting of glaciers to its consequences in human life. But this is not enough. For climate justice to actualise, it is important that we realise that the consequences of climate change will not hit us all in the same way. The difference in experiences of climate change, however, is not limited to the division between rich and poor. Gender, race, tribe, community, culture – all these factors demand a more nuanced and inclusive approach towards climate action. So, the crisis brought about by a uniform yet uneven vision of human progress cannot be cured by the same kind of uniform response. Rather than reiterating and accentuating older injustices, climate action, guided by the principle of social justice, may become an opportunity of undoing the previous misdeeds.

Lessons we fail to learn

Wars, conflicts exact a heavy toll on people

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I was only six, but I remember the newspapers that we pasted on the windows to avoid detection by enemy aircraft during the India-Pakistan war of 1965.

I was older at the time of the 1971 war between India and Pakistan and was a hosteller in Delhi. We blackened the dormitory windows and took turns at night to sound the hostel alarm in case of an air raid siren.

Later, I visited an Army officer, who was a friend of my uncle. He had lost a leg in the 1965 war. I saw the grim reality behind the sad expressions on the faces of the officer and his wife - the price that many have to pay during wars cannot be counted in numbers.

Almost a decade and a half later, during my first posting in the Railways, I reached my maintenance shed one morning to find the staff agitatedly walking out of the premises. I was interrupted by my supervisor from trying to stop them. "Sir, please do not stop them, otherwise they will turn on you," he said. The Prime Minister had been assassinated and riots followed. My immediate senior had to take shelter with his family in empty oil drums. They were the fortunate ones.

The past 100 years have been tumultuous globally. We have witnessed innumerable genocides and wars. Each act of violence has its repercussions for the people who live through the harrowing period. Yet, the next generations either develop or at least pretend to develop amnesia when perpetuating the same atrocities on others in later years, seemingly oblivious to the fact that their life too is transitory.

William Wordsworth imparted a life-changing lesson. He said: Life is divided into three terms – that which was, which is, and which will be. Let us learn from the past to profit by the present, and from the present, to live better in the future.

A tree called poetry

Many are its branches and swinging from one to another is quite a delight

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I have a penfriend, sorry, email friend, who made it clear at the very outset that she was a sworn enemy of poetry. "I hate poetry" were her words.

As a poetry-lover, I was stung, mortified. I knew people did not readily take to verse after their bitter struggle with it at school. I also knew hate, like love, could be blind.

It is common knowledge that intense hate can damage the mind. I had no missionary zeal to reform that poetry-hater. Yet I kept baiting her with a variety of simple poems from my numerous anthologies – now a Robert Frost, an Edward Thomas, a Rudyard Kipling, or a Thomas Hardy – and bided my time. Needless to say she finally bit. Now, she bombards me with poems she hunts up on the Internet!

Most folks shy away from poetry on the assumption that poems are hard to follow. That is only partly true. There are numerous poems that are readily accessible and can touch the lay reader emotionally.

Among the many definitions of poetry is this: emotions recollected in tranquillity. There may be some truth in this, as may be seen, for instance, in a poem such as William Wordsworth's *I wandered lonely as a cloud* (*Daffodils*) or Robert Frost's *Stopping by woods on a snowy evening*.

Consider the lines in this simple poem by George Crabbe: *The ring so worn, as you behold,/So thin, so pale, is yet of gold:/The passion such it was to prove;/Worn with life's care, love yet was love.* How much the lines tell!

GETTY IMAGES/ISTOCKPHOTO

Or, in a lighter vein, consider the anonymous poem *Frog*: *What a wonderful bird the frog are/When he stand he sit (almost);/When he hop he fly (almost)./He ain't got no sense hardly;/He ain't got no tail hardly either./ When he sit, he sit on what he ain't got (almost).*

And you laugh your head off (almost).

Even poetry-haters can possibly enjoy comic verse. The English language is rich in that genre. *The Oxford Book of Comic Verse* contains over 500 poems! If one can enjoy those, one may eventually get to appreciate poetry.

I have compiled, by way of a novice's baptism in poetry, a few poems that I feel have instant appeal – such as D.H. Lawrence's *Piano*, Edward Thomas's *Adlestrop*, Fleur Adcock's *For a five-year-old*, and Cecil Day Lewis's *Walking away*.

I have no brief to promote or popularise English poetry. I was myself not a poetry enthusiast until I bought a copy of the BBC's *The Nation's Favourite Poems* (1995), an anthology based on the results of a nationwide poll in Britain. And now I have quite a few anthologies to keep me going *ad infinitum*! Like a monkey, I keep jumping from one branch to another on the immense tree called poetry!

What better can you hope for at 95?

Toiling away

Let's appreciate and support the workers that make our lives better

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Labour is an integral part of production. Land and capital alone do not lead to production.

Young persons leaving their villages and home towns in search of jobs is a common sight these days. The pandemic highlighted the woes of migrant workers, who were caught between the devil and the deep sea.

The condition of the workers is miserable. They need money for their own survival and to send a part of it to their dependents.

Let's spare a thought for the workers who battle it out in the scorching summer heat. The rainy season presents a different challenge altogether.

Delivery persons, electricians, painters, plumbers, masons, fruit and vegetable vendors, truck drivers, car mechanics, and many such skilled and unskilled workers serve us everyday. Without them our lives would be difficult.

A.M. FARUQUI

These are works that can drain anyone physically.

For people employed in the unorganised sector, meagre wages do not allow the luxury of savings. Survival of the day overrides the thought of future.

Age spares no one; it cannot be any different for the labour force. The weakening of the body poses a challenge in their lives, with nothing to fall back on. Dependency on others makes their lives miserable.

The salaried class have a steady income that paves the way for savings for their old age. People working in a protected environment may not fully realise the hardships of those employed in the unorganised sector.

We need to appreciate the contribution of these workers. Their lives should improve. Just paying tributes on Labour Day alone would not suffice.

FEEDBACK

Letters to the *Magazine* can be e-mailed separately to mag.letters@thehindu.co.in by Tuesday 3 p.m.

Cover story

It's rightly pointed out that the lack of financial resources and male dominance are the two main reasons for poor representation of women in politics. ('Missing women in Indian politics'; Apr. 21) Encouraging women with the full implementation of 33% reservation can only end their struggle, and ensure equal rights in politics.
N.S. Reddy

The women's reservation bill was passed on September 21, 2023, but its implementation may not take place till the next elections. Male chauvinism is the main stumbling block. There are of course women in Indian politics, but their tribe needs to be more interested in helping each other out.
N. Ramalakshmi

The less said about politics the better. Only one woman has become the Prime Minister of the nation in these eight decades of Independence. In wages and jobs too, women stand discriminated against. On the other hand, crimes against women keep growing. When women's voices are heard, such things will stop happening.
Sravana Ramachandran

Political nostalgia

The arrival of TVs supplemented by the many restrictions on campaigns has not only dented the charm and colour of the electoral battle, but also contributed to a disconnect between voters and politicians. ('When campaign trails were carnivals'; Apr. 21) Restrictions on loudspeakers may sound meaningful, but in a subtropical region like South India, late nights offer a cool respite from the day's heat. It's also a welcome opportunity for people to get an idea of the policies and programmes of a party. And often, there's a sizeable number of women in attendance too, even at four in the morning.
T.K.C. Arunachalam

Tea and politeness

The writer is trying to convey the importance of good manners through a simple tea ceremony depicted in the Japanese web series *Shogun*. ('Teach yourself some manners'; Apr. 21) This article helped me change my negative opinion of web series, realising that they're not only for entertainment but also for learning new things.
V. Leena

History of inclusion

Thanks to the writer for bringing to our attention that mythology has recorded the presence of the LGBTQIA+ community and that they were recognised for their sexual behaviour, not ostracised. ('LGBTQ+ tales in temples'; Apr. 21)
B. Sundar Raman

The article was a revelation and helps us appreciate the cultural diversity and beauty of our society in accepting queers on a par with others. But today they face increased discrimination. Can't compassion and empathy win over backward thoughts?
Rohith Varon S.S.

MORE ON THE WEB

www.thehindu.com/opinion/open-page

Border tale
Could a chance encounter have inspired a flair for international relations?
Kusum Chadda

Strength from stubbornness
It gives us the courage to stand up and fight for what we believe in
Anakha K. Vijay

Feels like home
A sense of belonging is shaped through the perception of the self
Ananya Vinod

Carnatic music and *keerai vadai*
Food is music to the body, music is food to the soul
S.V. Raman

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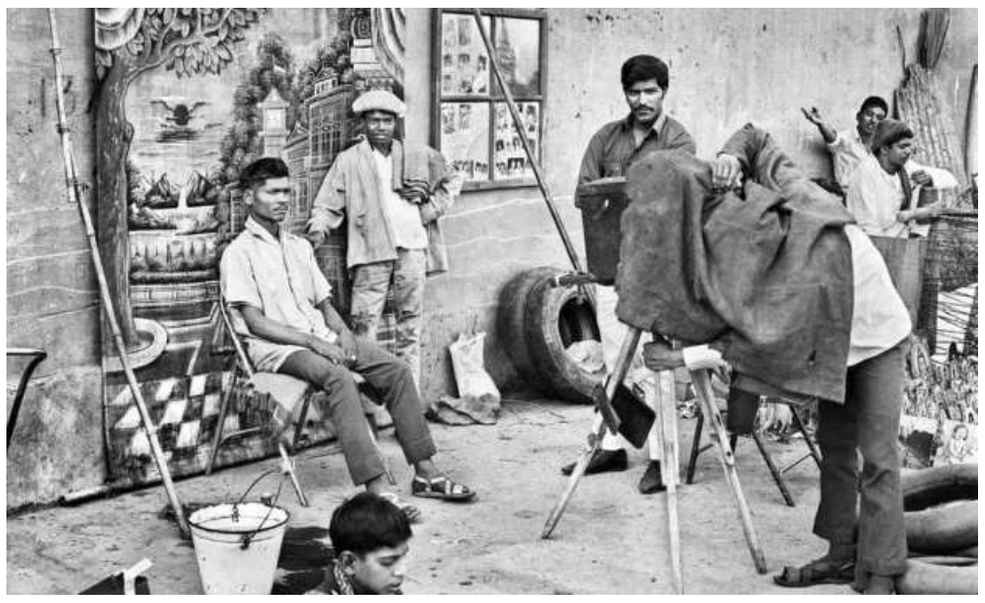

RAGHU RAI'S THOUSAND LIVES

250 black-and-white images spanning the formative years of the photographer's career reveal an India that feels both familiar and foreign

The spiritual and the mundane (Clockwise from above) Mother Teresa in prayer at Nirmal Hriday, Calcutta, 1986; Indira Gandhi at home in Delhi with daughter-in-law Sonia Gandhi and grandchildren Priyanka and Rahul, 1972; the Dalai Lama watching *Mahabharat* in Dharamsala, 1988; *Confessions of a Wall* series (1973-1977); wrestlers at an *akhada*, Delhi, 1988; and photographer Raghu Rai. (RAGHU RAI AND PHOTOINK)

Gautami Reddy

At no given time am I without a camera," asserts Raghu Rai, one of India's most important photographers, who is the subject of a major exhibition at the Kiran Nadar Museum of Art in New Delhi. Now 81, Rai has been taking pictures for over half a century – since he was 23, when his elder brother introduced him to the camera, eventually making a name for himself as a distinguished photojournalist and editor who travelled the length and breadth of India to capture its essence.

"I was never just a photographer on assignment. When I was working with *The Statesman* and later *India Today*, I was sent to shoot specific stories, but I would document the entire journey and take my camera out on the plane, on the train, sitting in a taxi, or even a bullock cart, photographing the people, landscape and life," he shares. It is this journey spanning the formative years of Rai's career, from 1965 to 2005, that is reflected in over 250 striking black-and-white images on display.

Named *A Thousand Lives*, the exhibition pays homage to India and the passionate journey of a photographer. The country is seen in its many faces, in moments of peace and protest, the spiritual and the mundane, glorious landscapes juxtaposed with the stark extremes of wealth, power and poverty.

Portraits of figures such as Indira Gandhi and her political adversary Jayaprakash Narayan, or JP as he was known – in two adjacent rooms – capture their fragility. They reveal the vulnerability behind Gandhi's stern facade, whether she is waving goodbye to her grandchildren as she departs from the Prime Minister's residence, or in moments of solitary contemplation before addressing a large political rally. JP is depicted upholding the conscience of the country, both alone and amidst a crowd.

Beyond the political realm, Rai's photojournalism led him to spiritual leaders such as the Dalai Lama and Mother Teresa – experiences that profoundly impacted and influenced his way of seeing. The Dalai Lama is portrayed enjoying a meal or playing with a cat in Dharamshala, while photographs of Mother Teresa show the dedication inherent in a life of service.

Capturing the ordinary

This spirit of service influenced Rai during his early encounters with Mother Teresa. "I was very frustrated with the state of the media. Most stories were being done from Delhi, and covering Indian politics was becoming monotonous. I wanted to photograph the ordinary people, who are the true soul of this country," says Rai, who ventured deep into villages and urban centres as far as Kanyakumari, Kolkata, Jaipur, Varanasi, Ladakh and Srinagar -- capturing the extraordinary within thousands of ordinary Indian lives.

Beggars, theatre artists, shop owners, tailors, freight carriers, taxi drivers, soldiers, devotees, street gamblers, slum dwellers, school-going kids, nuns, and transwomen, all find a place of dignity in his photographs. Animals too roam freely – dogs, horses, monkeys, goats, parrots, and pigeons – in harmony with their street surroundings familiar to every Indian.

Despite the vibrant colours of the country, his photographs are rendered in analogue black-and-white. He notes, "Until the 90s, most Indian newspapers and magazines were publishing black-and-white photo stories, while only a few western publications had begun to embrace colour."

In the here and now

India feels both familiar and foreign, with photographs reminiscent of a recent past – a country on the brink of modernity and liberalisation. "The India of 40-50 years ago was a different world. Reality had another kind of visual experience back then. Today, it has been bulldozed by new products and even politicians being sold in the market," he says, commenting on the changing state of affairs. He recalls Humayun's Tomb in Delhi, once surrounded by farms where farmers could be seen ploughing wheat. Now, walls have gone up, separating the people from their heritage, which now lies amidst shantytowns.

But that doesn't stop him from photographing. "My faith lies in the eyes of the people of my country whom I photograph," says Rai, who recently returned from snapping the Shri Kashi Vishwanath Temple in Varanasi. "Life is ever-changing and challenging, and every time it has new energy to share."

Black and white gave way to colour photography, analogue to digital, an old India to a new India. And yet, Rai remains humble in his search. "In Zen Buddhism, there is an old saying about the importance of being here and now. For me, photography is about being here and now. It is about connecting with every inch of space that your eye can see. When you do, you become a part of the whole. That's when the magical moments happen," he shares, his words as poetic as his images.

A look around the exhibition makes it clear: Rai is present in each of the thousand lives he photographed – himself a crucial part of the whole.

'A Thousand Lives: Photographs from 1965-2005' is on view till April 30 at KNMA.

The culture writer and editor specialises in reporting on art, design and architecture.

Camera ready

Over the years, Rai has transitioned from using Nikon camera systems to the Fuji GFX, which is almost always hung around his neck. "Digital technology is so amazing; it gives me greater control and superior quality to photograph any situation, day or night," he says. Most images are now captured in colour, in RAW format, and converted to black-and-white if the situation demands it.

Goan village on a quilt

Savia Viegas' hand-embroidered pieces record stories of her family and Carmona

Arti Das

Quilts and memories go together — the varied scraps of fabric forming a harmonious, scrapbook-like whole. In 2015, when Goa-based artist and writer Savia Viegas was sorting through her late mother's belongings, she came upon such a quilt. Heavy with embroidery and mould, it told stories of her family, and her village, Carmona, in South Goa. Her mother, Berta Elisa Viegas, had made it from old pairs of jeans. "The motifs she used [roses, birds, people] were part of my childhood," she shares.

Later, during the pandemic, Savia, 66, picked up the quilt once more. This time, she was inspired to create something new — as a tribute to her mother. Ten hand-embroidered pieces that she created over the next 18 months, on one-foot-by-one-foot pieces of denim, are now part of an exhibition titled *Carmona's Talking Quilt* — along with photo montages and upcycled pieces of her mother's quilt that she crocheted together. The embroidered panels are like storyboards, each telling a tale from Savia's life.

She added another dimension to the work by detailing her quilts in stitches inspired by arpillera, an embroidery form Chile that was used as a sign of resistance during the military dictatorship of Augusto Pinochet (1973-90). Her storytelling — based on synoptic narrative as seen in Buddhist art — also reflects her background as an art historian.

The Goa-based freelancer writes on art and culture.

Till May 5 at the Museum of Goa | Read the full story on **magazine.thehindu.com**.

ILLUSTRATION: ZAINAB TAMBAWALLA

A LITTLE LIFE

Strength of a snowflake

Phuphee's lesson on celebrating the power of individuality

Many years ago, when I was in school, I had a teacher who found it very difficult to be kind to me. We had just started the new academic year and it was our second or third mathematics class with him. In the first couple of classes, he asked students to come up and solve problems on the blackboard. Now, I wasn't especially terrible at maths, but the prospect of getting up in front of an entire class put me in panic mode. Let's just say I always knew that I could not be a politician.

When it was my turn to go to the front of the classroom, I could not concentrate on the question and muddled the whole thing up. He looked at me and said, 'It is a good thing you have a pleasant looking face because here [pointing to his head] it is all empty.' Everyone laughed, including me. For the next couple of months, even when I worked up the courage to answer a question and put my hand up, he would point to his head and mouth 'empty', and pick someone else to answer. I know I messed up the first time, but I didn't understand the need for this constant mocking.

Soon, December arrived and with it our winter holidays. I was packed off to Phuphee's house for a few months. On the day I arrived it started snowing – a little dusting at first, followed by a pause of a few hours and then, a gentle, continuous snowfall that carried on for days. Soon everything was covered in a heavy white blanket. Every morning we would see the white pile get taller and taller, until it reached the ground floor windows. We played outside making snowmen and women and having snow fights, until chilblains covered our hands and feet, which made them hurt and itch.

Phuphee rubbed mustard oil on our hands and feet in the evenings, covered them with woollen socks and mittens that she had knitted, and told us never to set foot outside in the snow again. We, of course, did not listen and the whole process was repeated again the next evening, including the threats and admonitions.

In my second week there, I remembered the discouraging words of my teacher and I promised myself that I would stop going out and wasting time. Instead, I would throw myself into becoming so proficient in maths that he would have no choice but to stop mocking me. So, for the next month, I would wake up early in the bitter cold and work, taking breaks only for the bathroom and food. One day when I was sitting in Phuphee's room, she came in with a bowl of hot *firni* (semolina cooked in milk and sugar topped with nuts and saffron strands).

'Eat it before it gets cold,' she said. She sat down and asked why I had stopped playing with my cousins. I told her of my predicament and how I was determined to win my teacher's approval. She got up and opened the window. A blast of cold air swept into the room.

'Look, it is snowing again,' she said, scooping a handful of freshly fallen snow and putting it on the tray. She dried her hands on her *pheran*, closed the window and sat down. She lit two cigarettes and smoked for a few minutes.

'You know, *maetonji* [the English missionary nurse who ran a local clinic in the village] told me that snow is made up of snowflakes. Tiny, small flakes that clump together to form the blanket you see outside,' she said. 'Each snowflake is different. No two are the same. Can you imagine that? And, in order for us to see the individual flakes, we would have to get a special glass.'

I didn't understand why she was telling me about snowflakes.

'Whose fault is it that we cannot see the snowflake? Us, for not possessing sharper eyes, or the snowflake itself?' she asked.

'I don't know,' I replied, 'I guess the defect lies with our eyes.'

'Yes, it is our eyes that cannot see the beauty of an individual flake. Do you think the snowflake is any less beautiful or powerful simply because we are incapable of seeing it?'

'*Boaz, myoan gash* [listen, light of my eyes], everyone around you will not be able to see you the way you are. Most of us are limited by our own defects. The important thing to remember is that just because someone cannot see you for who you are, it doesn't diminish you in any way. You remain the same. Now finish your *firni*,' she said and left.

I thought about her words as I spooned the creamy mixture into my mouth. I finished the *firni*, closed my books and went outside to play with my cousins. A month later, back in the classroom, I realised my teacher was exactly the same. I, on the other hand, had changed. I worked hard but stopped seeking his approval or even kindness. There was power in knowing that I was valuable and unique even if he was unable to see it.

Instead of concentrating on his unkindness I chose, like the snowflake, to bask in my own individuality and power. I took my final examinations and did well, both to my surprise and his.

***Saba Mahjoor**, a Kashmiri living in England, spends her scant free time contemplating life's vagaries.*