

MOVING BEYOND PAPERS

EDITORIAL-JUNE BUGS

A new academic year is here, and it heralds the arrival of new students, new readers and of course, new creators! Team Ruiaite Monthly welcomes everyone back to college, and wishes a warm hello to our freshmen! The start of a new semester means new beginnings for everything: friendships, rivalries, learning, exploring and love. The monsoon has begun as well, a torrential downpour that washes away the old to make way for the new. It's a new start for the current team of the Monthly too; our seniors have graduated and flown to further grounds, and it's up to us to make sure that this venture that they put so much work into soars higher than the clouds.

The elections saw a surge in voting, which we credit to our generation for being aware of their rights and choosing to exercise them! Buzz Around has covered the 2019 elections with intrinsic details, and summarized them for a quick recap. The new entrants into college will want to take a look at Careerwise; they've emphasized the importance of the board exams and selecting one's path following those papers. Behind the Scenes brought into focus World Environment Day, and the absolute necessity of working together towards the future of our planet.

Just how much freedom of expression can be afforded or allowed when it comes to technology? Open Forum investigated the issue using one of the world's leading producer countries as an example. Insight delved into their feelings for summer and their thoughts about leaving it behind, and spoke about how summers past sometimes came back to haunt them. Fictionally Yours brings an emotional issue to the table that may be relatable for some readers: their new story talks about helicopter parenting and the divide between parents and child that it inevitably causes.

As much as we like to believe that the human race is constantly advancing and leaving behind cruel practices for good, it is not always the case. Illegal animal trade, for laboratory purposes, breeding or even circuses, is a rampant act even today. Op-Ed has chosen to investigate the pressing issue further and explore ways in which we can help our fellow living creatures. Meanwhile, Science of Everything explored a prominent force of nature, one responsible for creating some of the biggest and most beautiful natural structures in the world, like the Grand Canyon.

Safarnama is always looking to help our readers with their journeys, and this time they've brought modern troubleshooting for common travel related problems. Apps provide answers for most everything, and they've sifted through the web to bring you the best of the best when it comes to accommodation and food. Tech Tricked explored innovations in medicine, and spoke at length about how scientists have made a breakthrough to be able to use sensor gut probes in the form of easy to ingest pills. Art Wall have made the magazine brighter with their magnificent creations, and brought into focus handiwork that is passed from generation to generation.

Happy reading, Ruiaites, and all the very best for the upcoming year!



ELECTIONS 9019

"In the turmoil of battle, the great general maintains a psychological serenity like the needles of the compass in the storm-tossed ship" ~ Clausewitz

Riding on a massive saffron surge sweeping through most parts of India, the BJP- led NDA government became the first non- Congress government to return to power in Indian political history. After Jawaharlal Nehru and Indira Gandhi, Narendra Modi also became the third Prime Minister of India who retained power for a second term with a full majority in Lok Sabha.

Repeating its improbable feat of landslide victory in North, East and West India with a vote share of nearly 50%, the NDA surpassed its last tally of 336 to achieve a supersized total of 354 seats out of the total 542 LS seats. By itself, the BJP crossed the triple century mark by winning 303 seats across the

country. It made handsome gains in West Bengal amidst massive poll violence and allegations of voter fraud perpetrated by party goons, and has managed to thwart the threats from the BSP-SP Mahagathbandhan in UP. The saffron wave not only swept through the Hindi heartland and Gujarat, but also rippled through West Bengal , Odisha, Maharashtra, Karnataka. Only Kerala, Tamil Nadu, and Andhra appeared untouched. There were approximately seven states where the Congress party couldn't make an appearance and settled on a duck.

Surprisingly, the overall tally of the UPA was only 91. Despite the hype they

created over issues like 'Rafale', 'Chowkidar Chor hai', and 'Ram Mandir', they couldn't resonate with the electorate. Also ,the BJP had mobilised all its organisational resources very well. The organisational structure that Team BJP put in place right down to the polling station level had played an important role in this election. The opposition was lacking in that respect too. The senior and seasoned leadership of the Congress was less visible while campaigning was left to the inexperienced young leaders.

Finally, the opposition had no answer to PM Modi's strong emotional pitch. Modi effectively wove his personality, his developmental programmes of the last

five years and his ideology in action to generate a strong emotional sentiment among the masses in support.



It was, in a way, an answer to all those critics, both domestic and international, who called Modi a divisive figure. Consciously otherwise, the or opposition had centred his election around Modi with the 'Gaali Politics' stopping to new levels and giving it an utmost negative tinge.

Here are some of the highlights from the Loksabha elections 2019:

1) The national capital was swept completely by the BJP and the candidates included cricketer- turned politician Gautam Gambhir, Delhi BJP Chief Manoj Tiwari and many more.

2) The most high profile seat of Bhopal was bagged by terror accused Pragya Thakur who managed a win by more than 1,50,000 votes - whereas Congress veteran Digvijay Singh was found at a loss.

3) The most stellar performance was depicted by Smriti Irani who bedazzled minds of many by outranking the Congress supremo Rahul Gandhi by a vote share of more than 50%

Therefore, after BJP's smashing victory, the Prime Ministerial candidate of the NDA- Narendra Modi is all set to swear in for second term on May 30.



RIDDHI SOLANKI, TYBA

SIMPLY PUT: CYCLONE FAMI

1. How are tropical cyclones named?

Meteorological World Ans.-Organisation has devised a mechanism according to which countries submit a list of names from time to time. For tropical cyclones developing in the North Indian Ocean, countries like India, Bangladesh, Sri Lanka, Myanmar, Maldives, Oman, Pakistan and Thailand send their names to the regional tropical cyclone committee, from which a name for the cyclone is chosen.

did Cyclone 3. Where and how Fani originate?

Ans. - Cyclone Fani was the first cyclonic storm of the 2019 North Indian Ocean cyclone season and originated due to the tropical depression that formed west of Sumatra in the Indian Ocean on 26th of April. The conditions became favourable for cyclone formation on 30th April and it intensified into a severe cyclonic storm and reached its peak intensity on 2nd May and became equivalent of Category 4 hurricane.

2. What is the meaning of 'Fani'? Ans.- Fani was suggested by Bangladesh. The word means 'snake' or 'hood of a snake.'

4. When did Cyclone Fani hit Odisha? Ans. - Cyclone Fani made landfall in Odisha on 3rd May Friday at 8 am in Puri with a wind speed of 175 - 185 kmph, briefly peaking at 205 kmph.

5. What was the destruction done by Cyclone Fani? Ans.- Cyclone Fani battered the district of Puri and parts of Khurda district, claiming 34 lives. The total death toll was 64. It disrupted the communication facilities and electricity in the affected areas, damaged many kutcha houses as well as uprooted

6. Which states in India and countries were affected by Cyclone Fani? Ans. - 19 districts in Odisha, West Bengal and Andhra Pradesh were given storm warnings. Bangladesh also gave warnings to its coastal including regions Cox Bazaar.

many trees.

7. Why was Cyclone Fani unusual compared to other cyclones?

Ans. - Most of the cyclones which originate in the Bay of Bengal in the month of April-May are usually weaker and serve away from India's east coast. Cyclone Fani was unusual as it emerged near the equator below the Sri Lankan landmass at latitude 2° and unlike other cyclones, travelled a long distance to reach the north -eastern coast of Odisha. Thus, it gained a lot of strength as it spent more time on the sea.

8. What measures were undertaken by the Central and the State Government in order to tackle Cyclone Fani? Ans. - 11 IAS officers supervised the relief, rehabilitation and restoration work in the districts that were likely to be affected by the cyclone. The people living in kutcha houses of the coastal areas were evacuated by 2nd May Thursday afternoon and multi- purpose cyclone/flood shelters with all amenities were constructed. All 28 teams of NDRF, 20 ODRAF units and other Fire Services units were dispatched. Educational institutions remained closed and holidays of various departments were cancelled. The Centre and State Governments worked in tandem to face the emergency needs head on.

9. What financial assistance was given by Central Government in order to tackle this crisis? Ans. - Prime Minister Shri. Narendra Modi conducted an aerial view of the

affected districts of Odisha on 6th May. He announced immediate assistance of Rs.1000 crores, apart from Rs. 341 crores released on April 29.

10. What other measures or suggestions can be implemented in order to make Odisha tackle cyclones in a more effective way?

Ans.- Disaster management programme should include means to protect livelihood. Cyclone resilient housing is the call of the hour. Electricity infrastructure suffers the most in cyclones - therefore, creating a disaster resilient power system to withstand wind-speed of 3000 kmph is crucial.

SWATI ACHWAL

TOP 10 NEWS

1. BJP sweeps general assembly elections through charisma of PM Narendra Modi

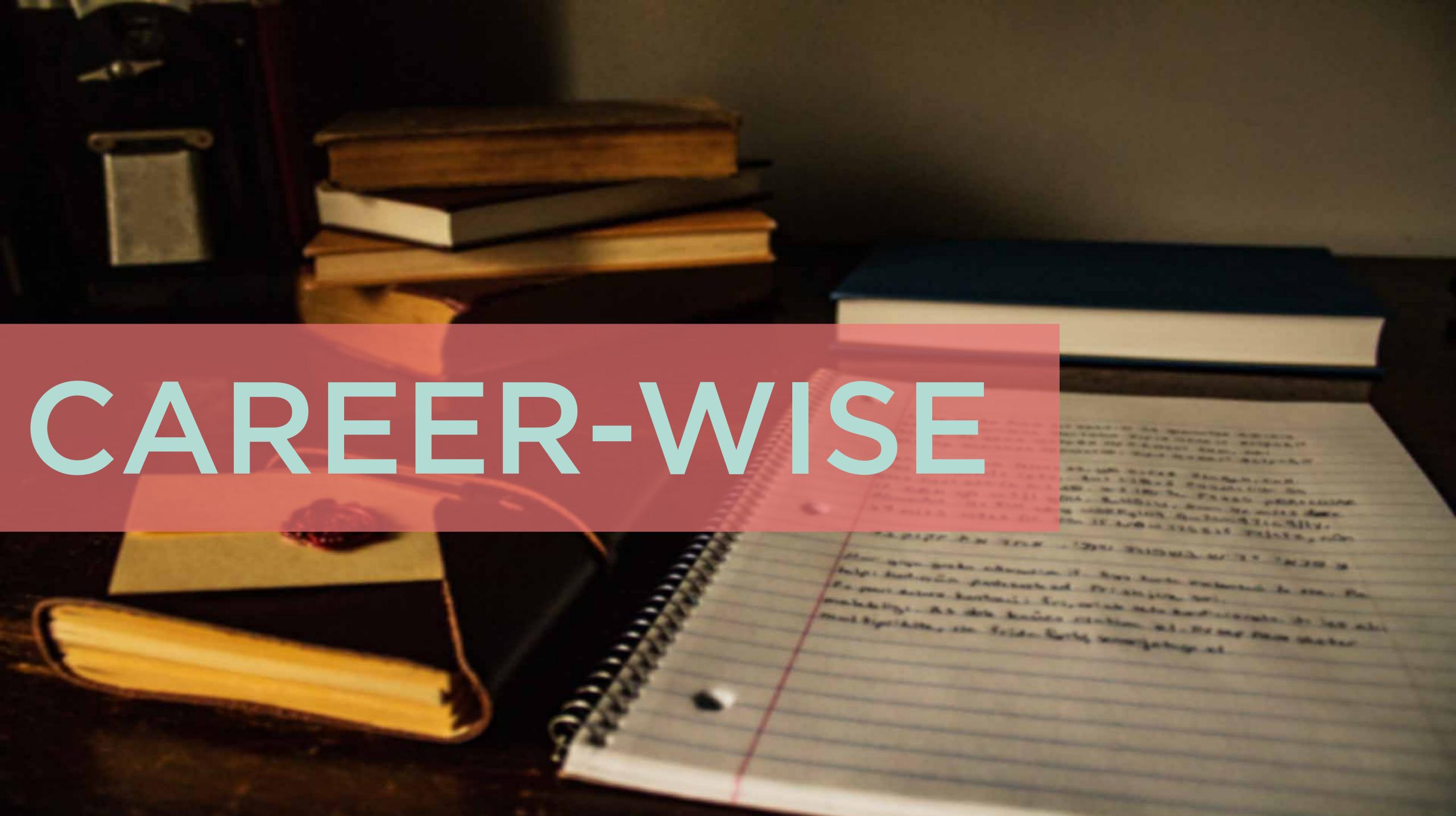
3. Temporary closure of Jet Airways leads to a setback for Indian aviation.

- 2. Cyclone Fani hits the state of Orissa killing more than 50 people.
- 4. Jaish-e-mohammed mastermind Masood Azhzar declared International terrorist by the UN
- 5. Britain PM Theresa May resigns amidst Brexit deal tensions
- 6. A series of bombings struck churches and hotels in Sri Lanka blasts on Easter Sunday killing more than 250 people.
- 7. Tensions in Kashmir after killing of India's most wanted militant Zakir Musa.
- 8. USA presses charges on chinese telecommunication company Huawei.
- 9. Mount Everest overcrowding led to 3 deaths
 - 10. Mumbai Indians wins IPL 12 in a thriller

TWEET OF THE MONTH:

सबका साथ + सबका विकास + सबका विश्वास = विजयी भारत Together we grow. Together we prosper. Together we will build a strong and inclusive India. India wins yet again! #VijayiBharat

@narendramodi



CONGRATULATIONS! You have successfully passed the HSC exam (better known as the Board Exams) and celebrated your success. Here we bring to you a guide for your further studies.

Are marks important?

everything" and that "Each child is talented," or "We should not pressurize children," etc. This is unquestionably true. We do not tattoo our board exam marks on our foreheads and we cannot judge a dolphin by its ability to climb a tree. But board exams scores do signify something critical: the level of sincerity and sense of responsibility of a student.

Truth is, the importance of board exam marks, the talent of children and their future is a long-winded, complex Colleges decide admissions based on the marks from the degree of complexity in class 12th is higher. board. Any college would like to admit intelligent students,

We often come across statements like "Marks are not but they also want students capable of following instructions. So, they take their chances by taking students with 'high' marks. Class 10th is undoubtedly one of the most relevant standards of formal education. It's that time of life when one undergoes turbulent hormonal and psychological changes, thereby marking the onset of adulthood. The level and complexity of subjects bring seriousness and a sense of responsibility among students. Students tend to become more mature and stable.

However, class 12th board exam is the next milestone in the problem. So, are Board Exam marks important? Hell yeah! journey of education. In comparison with class 10th, the

Scoring well in 10th and 12th will boost your confidence. Also, there are various kinds of scholarships and fee waiver schemes in private as well as government institutions based entirely on 10th and 12th results. So, it will reduce the financial burden on your parents as the admission process of graduation and post-graduation is costly.

- If your aim is to obtain an MBA, then you better buckle up! Competition to get into top colleges in India like IIMs is cut-throat. In case of ties in the Common Admission Exam (CAT) for entry into IIMs, the results of 12th and 10th are used to break the tie.
- If you are seeking a government job or planning to take the Civil Services Examination to become an IAS, IPS or IFS officer, board exam marks will be a blessing in disguise.
- Foreign universities look at your overall profile and board marks before giving admission.

Board exam results act form an important part of resume Therefore, Board Exam marks act as an important stepping and act as an indicator of student's academic performance. stone for our glorious future; they are a true test of merit. Many prestigious colleges and universities assign separate Successful accomplishment of board exam and the marks grade points to class 10th marks and heavily rely on them takes a student to another level. admission in colleges other than IITs. Even for IITs, it has professional courses. significance since they demand top 20 percentile in boards or min 75% in board.

when granting admission to the students. If you are a JEE Though talents, skill, passion are an important part of your aspirant, then 12th board marks are very important to get career, one cannot deny the importance of marks in India for

Let us now look at the two major mainstream courses provided in our college:

Bachelor of Science

India and all over the world. Some of the institute. sciences.

is divided into 6 semesters. Candidates

Science is a highly-rated stream in from state to state and from Institute distinct from a general B. Sc. The

fields

minimum 50% marks from a Bachelor of Science in Information design, databases, Science stream can opt for Bachelor of undergraduate program. The Bachelor systems. Science. The percentage may vary of Information Science degree is

Bachelor of Engineering in Information students of science change their field. It offers theoretical as well as practical. Technology, however is a four-year after completing HSC, but most of knowledge about different subject program and the degree awarded is them continue their studies in the hard areas. These subject areas usually referred to as B.Tech or B.E. A Bachelor include any one of the main Science of Science in Information Technology, (Physics, Chemistry, and is a Bachelor's degree in the The Bachelor of Science is a 3-year Biology) and other fields depending on Information technology field. This full-time undergraduate course which the specialisation a student opts. degree is awarded for completing a program of study in the field of who have completed their Higher Take, for instance, the field of software development, software Secondary examinations (10+2) with information technology. In India, a testing, software engineering, web recognized educational board with Technology (BSc IT) is a 3-year computer networking and computer

Bachelor of Arts

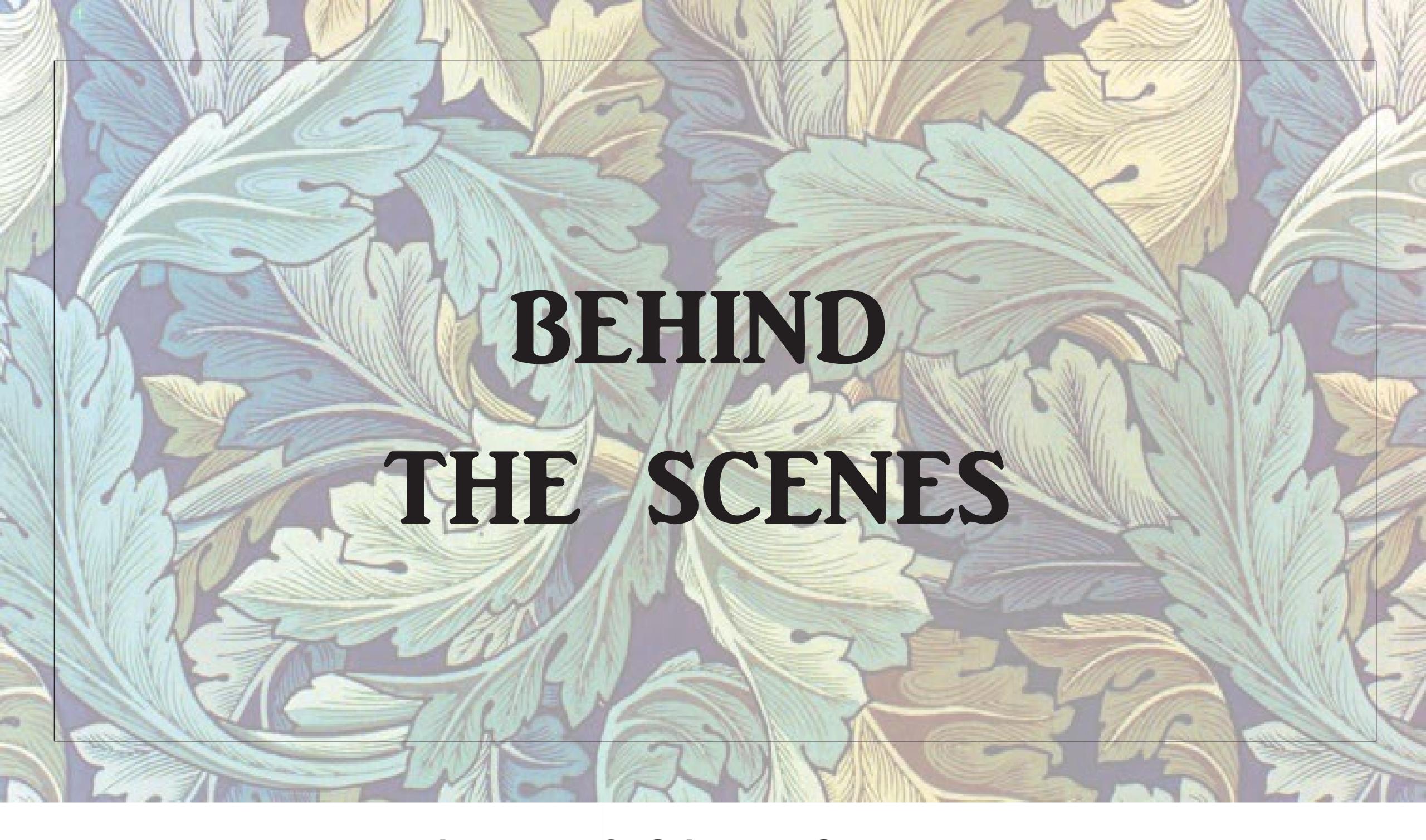
Unlike the BSc, the Bachelor of Arts of the subject combination in the first awaits the student of Arts, from graduation course can also be opted year. There is a wide range of subjects, teaching to poetry, from mental for by students of other streams. The ranging from psychology and political wellness to economic research. Bachelor of Arts is generally a science to history and Hindi. Our

three-year, six-semester programme. college also provides a special subject With changing times, society and Some people opt for a four-year choice in the second year; students societal attitudes have undergone programme, which gives them a can choose from journalism, mass changes. A course in the Arts is now double major. The major is selected in communication, investment analysis one of the top preferences of many the last year, but it needs to be a part and Gandhism. A wide range of careers people.

How to gain admission into senior college?

As the results are out and students are all set to enter senior college with new energy and enthusiasm, one question lingers in every student's mind: what is the admission process? How can I get into my desired college? Here is the answer to all your queries:

- 1) Maharashtra board issues a common form for the colleges. The date of issuing the form will be announced through newspaper or on official website. The form asks for the details of the college you have opted. So be prepared with your college choices.
- 2) Visit the colleges you want to enter and collect their prospectus. You will have to pay some charges for the prospectus.
- Each has a code which you must enter while filling the admission form of each college.
- 3) Now fill the college's form which will be different for each college and will be available on the college website. Students who wish to continue in the same college MUST NOT FORGET to choose the in-house option.
- 4) After some weeks, each college announces its Merit lists. If you get admitted into the college you desire, you can continue with the process - if not, you can wait for the merit lists of other colleges. However, the merit lists do not release concurrently, so be sure to continue checking.
- 5) After the merit list is declared, in the next 3 days, complete the offline admission process and fees payment.



NATURE'S CALL FOR HELP

various fields of life are surely a boon for Pollution" and China is the host. the development of the mankind, but they have surely taken a toll on the environment. If we don't realize what we are doing to the environment, the damage will keep increasing beyond the permissible limit. To make people aware about the alarming situation and to find World possible solutions, the Environment Day is celebrated every year on 5th of June. First held in the year 1974, it is regarded as a very crucial step towards making the environment friendly society possible. As many as 143 countries participate annually for this. The UN has raised many

Environment is everything around us, global warming to ill-effects of plastic global warming accelerating its pace the living and non-living beings, and sustainable consumption. India has since the past 10 years. Some predicconstantly interacting with each other. been a host for the World Environment tions suggest that we have only around Humans have always influenced the Day twice: in 2011 with the theme 10 years to save our planet from the environment in various ways and have "Forests: Nature at Your Service" and in nearing environmental apocalypse. had a hazardous impact on it in the last 2018 when the themes was "Beat Plastic Plastic has piled up in the once crystal few decades. The advancements in Pollution". For 2019, the theme is "Air blue oceans so much so that turtles and



environmental issues on this day, from The World Environment Day is a day acknowledging that our planet is in wildlife protection, marine pollution, not to be taken lightly; especially with trouble.

fish are dying every day from its accidental consumption. And this is talking about just one aspect of pollution affecting our environment and its habitat species, there is far worse that can happen. One of the first steps in making our situation worse is ignorance. Everyone comes across at least one individual who says, 'how can recycling one plastic spoon save the planet?' or 'One person can't make a difference against 7 billion others.' Think about this: if all of us had this kind of an ideology, who would save the planet? Now imagine this level of ignorance in someone who has power. It is the need of the hour to start

home. It is in a crisis created by us and started to shift of this century.

far, there has been a certain dark phe-started to offer opportunities to all environment.

More importantly, this planet is our only and harmony. Slowly, our attitude making our own lives better and towards simpler, but as the population kept we are the only ones who can save it. "Anthropocentrism", meaning humans increasing, the amount of damage In the recent years, we have to admit started getting a feeling of superiority caused to the environment started that there have been dramatic changes and they started believing that they getting visible. The environment started in our lifestyle. From the increase in the have more inherent value than other to show her first signs of repulsion. population to advancement in techno- beings. By tracing our way back to Things went downhill from then on. We logical facilities, the blooming opportu- when it had actually begun, we can find ignored a lot of signs, tried getting more nities for humans in all sectors has in- ourselves at the advent of the industrial out of nature and her resources for our creased manifold. Along with the rapid revolution in England in the 18th century own benefit and in no time, collectively progress that we've been achieving so when occupations and mass production landed ourselves in debt with the

nomenon that has been trailing behind kinds of people. Through colonial For instance, in this terribly hot summer, and is feared to loom over us by the end power, this movement had managed to how much is the extent of our liquid spread to more than half of the world. intake everyday? We just go on seeping The degradation of the quality of the More production meant more material cups of ice creams and glasses of water environment has been an ongoing and energy and that's how we started whenever needed. Have we ever matter of concern that has held all milking Mother Earth for more and more thought about the birds and animals in countries of the world in a tight place. of her resources. A huge advancement our vicinity? They are the ones who Different human beings have always in the transport and industrial facilities have to franticly search for water. had different approaches towards the meant expulsion of harmful gases and Keeping a bowl full of water in our environment. In the distant past, we had other pollutants in huge amounts. window or balcony means a lot to them. an "Ecocentric" approach, meaning Research into making lives simpler led Such small steps lead the way towards most humans used to consider all the us to manufacturing of plastics and environment friendliness. We should elements of the environment as equal, other cheap things that became always remember that nature provides including themselves. So, without any necessities of a lifetime. At first, all this for all our needs but not our greed. We inferior or superior being, we were living didn't seem to make any difference and should care for our Mother nature. The along with the other species with peace research had been more focused on first step to this is acceptance towards

many more.

So, isn't there any human taking this Various species are on the verge of issue seriously and thinking about the extinction and we the selfish humans way out? Aren't we concerned about are a reason for that. If at all, our our dear planet? Even if some people progress is hampering animals then we start working for changing the scenario, are on the way towards failure as a will that be enough?

Are we going to undo the damage or is concern during the end of summer. it too little too late? Can nothing be Organizations like Paani foundation and done now? Wait! It isn't so. We can still Naam work for it throughout the year. In save the environment, the natural villages where there is extreme water resources, the atmosphere, our dear shortage these people reach and help ozone, the endangered species and the them out. Pipelines turn into lifelines, as richness of nature. There are institutions people walk for kilometres to get water. which are trying to do this by good They help the villagers to dig wells and

the situation. Small gestures like putting tremendous efforts for keeping initiatives. To give a very local example, declining a plastic bag the next time you the balance of the environment intact. we have Malhar Kalambe from Dadar go to buy vegetables or using glass They have come up with initiatives who started with a beach cleanup drive containers instead of plastic ones – even which help protect our environment every Sunday. Then later on several from a single person - is a step in the The very well known fashion designer enthusiasts joined him and now they right direction. Other measures include Stella McCarney is an animal rights have a huge network in Mumbai. recycling old clothes, switching over to propagator and hence designs clothes a vegetarian - if not vegan - diet and and accessories without using any kind of animal products i.e. leather, fur, etc. whole. In our country water is a major planning and even better execution. counter water shortage. Even monetary There are individuals who are tirelessly help is a huge part of such essential



environment by whichever way we can. water and recycle products as much as their own way, we can definitely make Using the car less, car pooling and use we can. Remember, small daily this world a better place to live. All these of public transport can be a way. While improvements are the key to staggering are only possible when each of us shopping, we can consider buying a long term results. We must keep in our believe that we can make a difference. product having the lowest impact on minds that "every drop counts". If we After all, a few tiny steps will eventually the environment. This will make the can do this on a personal level, we can lead to a tsunami of efforts to save our producers and manufacturers take up definitely contribute to preserving the planet. All it takes, is a little convincing. "green" practices in order to remain environmental richness.

We can help in protection of our competitive. We can pledge to save If everyone takes such careful steps in



Dear Summer,

You have shaped me as much as school as. I don't want you to be just a memory. Even the ones that I want to forget. So instead I thought I'd write to you, clearly and simply. Oh, summers are always looked forward to, eagerly awaited, and deeply cherished. Well, today I look back on you and all those thoughts of eagerness as well as the dread of your arrival. We all want a summer from this merciless sun that bequeaths no promise of a good or bad time.

I have spent some summers just waiting for them to end, the sheer boredom killing me. Occasionally I would swat a fly and then another. And still I was left bereft at its end, left wanting for more. Summers in college are like those fill-in teenage years only spent waiting to pass on to adulthood. Never fully a child, never fully an adult, just hanging there. Never around the corner. How the knowing what lurks senior year would how-can-I-get-out-of-the-whole-limbo-of-leaving-a-past-and-getting-into-the-future-present. Regardless of whether my junior year was so good that I don't want to forget or so bad I can't wait to forget.

But summers also leave behind traces - of the days of tanned skin on sunny beach days, the wisdom from travels and travails with family, of slip-ups in the elaborate lies you have made up for any secret adventures, of muscle memories of the dances and gymnastics you explored and muscle memories of the injuries and falls you took, of the smell of sweat and mangoes, and of more...

Summer's about to end, I realize. Because I won't have vacations anymore. Because soon enough I won't be a student lying on the hammock by the lake, my hairs lifted from the occasional cool breeze. And I know I'll carry this whole baggage into my cocoon as I metamorphose.

Love,

About to grow up

- Tanvi Padia (TYBA)

the first ghost of summer which knocks at your door brings with her the smell of the sea. her wispy hair is constantly windswept and her little feet trail sand wherever she goes. she pokes around your room, looking with barely concealed disdain at the books laid out. she rounds at every corner, hoping for people long gone, who left behind only worn out toys and the ache in your heart. she looks trapped within the confines of your apartment, this apartment where you've built your life, brick by brick, she longs for the open, boundless sky and the brightest of stars and a sea of grass stretching out in every direction, as far as the eye can see. you can barely stand to look at her, this child who has never known loss, and doesn't know what it's like to lose what you thought you could keep cradled in your hands forever.

the next ghost brings with her a sting of shame, she carries herself like a broken lullaby, patchwork skeleton unraveling at the slightest touch, the summer burns her from the inside out, every emotion like a gaping wound, eating her from within. there are new curves and new joints to relearn, until she is slowly becoming only an echo of the child she once was. she tells you about the way she longs to map the stretch of her skin, the way feelings make her insides swell like a ripening peach on the verge of rotting, the way she wakes up from half-realities and fever dreams with tears in her eyes. she looks at you with fearful trust and you remember what it was once, to be a child of the world starting to learn just how much it will take from you and you know what it is like now, looking back at yourself, with the terrible knowledge that yours arms will always be too short to reach far back enough to hold something that cannot be saved.

the third ghost stands shivering at your doorstep, bloodied hands trembling in horror, always fearfully looking over her shoulder for a past that she has smothered with her own hands. in the backyard of your building are bones you will never speak of, carcasses under overgrown weeds, versions of yourself forever silenced. you never got to see their bruised faces, the mark of a summer of hurting yourself. she's too quiet, startling you every time you see her. she could almost disappear if it weren't for the bloody trails she leaves behind, she stands at the window every night, staring off into the distance as though she too can see the ghosts of all that she has lost, as though she too, is haunted by lilting laughter and absent-minded chatter. there's bloody handprints over everything you've ever owned and even as

grief clogs your throat and your hands tremble, you put them around her throat, you know what you have to do, you know you must.

the next ghosts slips in through your door like a half-forgotten dream, she is an echo of being sixteen during summer, spending the days removing thorns from the soles of your feet and trying not to weep, smelling more like chlorine than the sea. she is just now learning how to wear the faded bruises like lipstick smears, to hold her own hands without cutting too deep. in the night she dreams of apartments with balconies overflowing with saplings and the smell of hyacinths lingering in the air. she is the memory of a memory of a memory of a child who is somewhere still dreaming, asleep. you think of the way summer takes away parts of yourself and gives them back to you rearranged but underneath it all your feet still know how to walk on the shifting sand and maybe you still yearn for the ocean in concrete jungles and maybe forgiveness is a ghost in your room who still reminds you of the sea. there are cities in you bustling with all the people you have ever been and when the sun sinks and all the lights go out, maybe, just maybe, hope has the sound of your own voice.

the last ghost is more person than memory, yellow cardigan slipping off her shoulder as she picks up your half-written stories and enacts them dramatically, muttering stupid puns and laughing alone, her summer is a summer of singing along with pop songs on the radio and dancing in rooms that she has long outgrown and in her you can see the things frozen in the summer, lying in wait, all those skins that you hadn't really shed, but maybe just grown over, so when she looks at you and gives you that one smile from years ago and calls you with a voice that makes even nostalgia sound like a lullaby, you shrug off your yellow cardigan and dance to the tune of many more summers spent falling in love with yourself.

- ANUSHKA NAGARMATH (SYBA) AND LAKSHMI KALARIKKAL (SYJC)

HERE COMES THE SUN!

Summer is the time for a reunion with our memories of childhood and adolescence, while summer-ends bring along the bitter-sweet feelings of losing this leisure, and growing up. It is always accompanied by a vivid range of tunes and songs, which stay forever as a part of our melodious past. Just the beginning of a song, and you are transported to your younger self! From those innocent 'katti-batti's to the first love and break-up, summer has a song for all. Here are Insight's favourite picks to enjoy this month of new beginnings and live with us the mood of dew-eyed Nostalgia!

P. S. Keep tissue papers handy, as these songs are heart-melting.

1. Puraani Jeans - Ali Haider

A package full of all college memories, from nuances of friendship to love and leaving it all behind, blended in the evergreen magic of 90's music! This song is a perfect composition to make you smile, laugh, cry and have a sudden strong urge to hug your friends. Every lyric in this song is relatable, and lingers on your lips for a pretty long time. Link: https://youtu.be/wbh8Mkl9zo4

2. Tanhaa Dil - Shaan

This song talks about the story of those individuals, who set out of the comfort zone of their homes to fulfill their dreams. The feeling of loneliness and craving for a familiar face is beautifully conveyed in it. Link: https://youtu.be/qkzfWhi6g

3. Papa kehte he badaa naam karega - Qayamat se Qayamat tak

The favourite Farewell song! It defines the feelings of each one of us - the pressure of expectations, the rebel in us trying to figure out our life, and still wanting a moment more to enjoy our freedom, to be carefree... Link: https://youtu.be/FEvBiayarlc

4. Yahaa ke hum Sikandar - Jo Jeeta Wo Sikandar

This movie has been a landmark must-watch for most of the Millennials, and each track in it captures so soulfully all the emotions of an adolescent's journey of becoming mature and towards young adulthood. "Jo sab karte he yaaro, wo kyu hum tum kare? Yuhi kasrat karte karte, kaahe ko hum mare? Gharrwaalo se, teacher se, bhalaa hum kyu darre?" On point! Another track worth mentioning is 'Pehla Nashaa'. It needs no description. That is an evergreen love song one can't forget. Link: https://youtu.be/Hw6l6CgrzNw https://youtu.be/ZYotlBxpM3Q (Pehla Nasha)

5. Maanjha - Kai Po Chhe

The age of passion, never-die spirits and thicker-than-blood friendships, when our dreams and ambitions soar high in the sky as kites, before strong winds of reality and responsibilities strike us. This song, with its earthly feel and foot tapping tune binds us in a very different emotion of inspiration. Link: https://youtu.be/BbD0PJSus3o

6. Yaariya - Cocktail

Growing up always comes with a baggage of growing apart. This song talks about friendship, the helplessness and of leaving behind the dearest to move ahead in life. The movie gave a happy song, 'Daaru Desi' and balanced it with this one, a perfect reality check.

Link: https://youtu.be/ VKsI6E-ZSk

Other worthy mentions are surely popular choices: 7. Pyaar ke Pal - K.K

8. Dil Chaahta He - Dil Chaahta he

9. Give me some sunshine - 3 Idiots 10. Galti se mistake - Jagga Jasoos

11. He Junoo - New York

12. Roobaroo Roshni - Rang de Basanti

So get your gang together, put on these songs, and enjoy these moments of Nostalgia with your dearest people. We'd be glad to be the reason for your reunion!

- SARA CHAVAN (TYBA)



Animals and humans have shared a beautifully co-dependent relationship over the millennia and have coexisted and evolved peacefully. But with time humans have put themselves over animals for ill-concealed frivolity masquerading as 'necessities'. We at Op-Ed have chosen to explore and shed light on the grim relation between animals and humans.

THE DARK WORLD OF ANIMAL TRADE

In the dead of a lonely and terrifying night, little Bindu; a Labrador of about 4 months of age escaped through a tiny hole in the barbed wires of a construction site. She was indeed lucky to have found an escape, but in case of her brothers and sisters who were still inside, life was going to be even worse. Their fate is stuck in the vicious cycle of puppy mills.

purebreds and exotic species. Once bred, they are left in highly unhygienic and unsafe conditions, minus food and water, waiting for their fate to bloom and some person to buy them. Buyers find them online, impressed by the pretty dog pictures used in advertises.

'Puppy mill' is the illegal production of

While being delivered to their owners, cramped in compartments of trains, they spend hours staring into oblivion, whereas bus travels have them sedated and packed in a box like a commodity, traders trying their best not to get caught

carrying puppies.

After having spent days covered in their own defecation and caged in metal wires, when they finally arrive at their destination, they are abandoned because the buyer did not like what was delivered home. Buyers get a refund and the puppy is left to live on its own on the street.

There is no fault of their own. The only fault is that they are born in this inhuman world ruled by hypocrites who call themselves humans. Female dogs are transported places to be

repeatedly fertilized by 'Stud dogs'. They are then brought back and a puppy of theirs is given to the stud dog's owner as payment. They are prisoners of greed, often put to

sleep because they are old and not brought by anyone. They are denied dignity, freedom, food, and life in itself because they were not worthy enough to be bought.

These are just glimpses of the horrifying picture. We can refuse to buy from puppy mills, hope that these monsters shun cruelty and start treating animals as real living beings, in need of love, care, and support.

JUIMANDE

Animals: Lives or Ragdolls?

How would you feel if you have to perform various acrobatics without your consent for entertainment? Or if you're locked up and being dragged from one city to another carelessly? Or if you're being experimented on?

Imagine what the animals must feel when they face such atrocities by the so-called superior humans for fulfilling their commercial needs and vanity in spite of having an equal claim on Mother Nature. Doesn't sound so good when the tables are turned, does it?

Even though it is said that 'जीवः जीवस्य भोजनम्। ' i.e. one creature is another creatures sustenance, these are few of the many ways they are used for commercial purposes. Cows, sheep, chickens, pigs, goats are

mercilessly killed in slaughterhouses in avidity of tender meat. Cow and buffalo milk is sold in market depriving their calves of their basic rights. Animals are

also used as workers and tools in farms and various other places, exploited for long hours, without being cared for adequately or being provided required amount of food and water, proper shelter and hygiene. Also at the end when they have served their purpose, they are shifted to slaughterhouses where they get 'mukti' from this cruel world.

Zoos which claim to be a safe haven for animals fail miserably to fulfill their aim. Animals in zoos are forced to leave their homes and they are expected to adapt to changes in their lifestyle only for people to gawk at them. Humboldt penguins, which thrive in cold climes are being forced to live in Mumbai of all places at the mercy of air conditioners! Circus trainers abuse animals with whips and rods and force them to perform painful and demeaning tricks. They face loneliness and boredom when their freedom to live freely in nature is taken away from them. Fatal

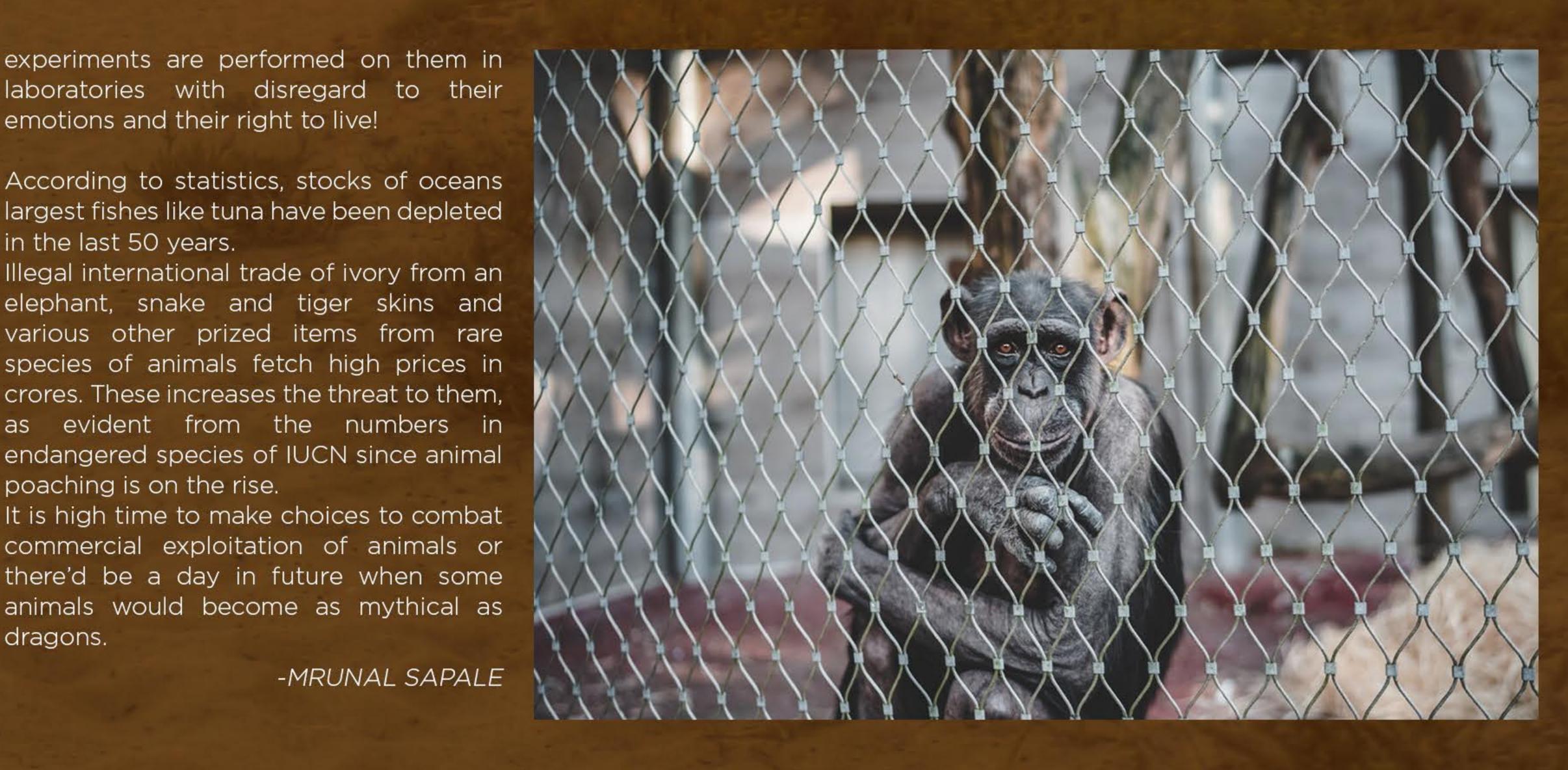


laboratories with disregard to their emotions and their right to live!

According to statistics, stocks of oceans largest fishes like tuna have been depleted in the last 50 years. Illegal international trade of ivory from an

elephant, snake and tiger skins and various other prized items from rare species of animals fetch high prices in crores. These increases the threat to them, as evident from the numbers in endangered species of IUCN since animal poaching is on the rise. It is high time to make choices to combat

commercial exploitation of animals or there'd be a day in future when some animals would become as mythical as dragons. -MRUNAL SAPALE



PEOPLE FOR ETHICAL TREATMENT OF ANIMALS (PETA) PETA (People for the Ethical Treatment of Animals) is an animal rights organization which was started by a woman in

America and has gone on to become internationally recognized today. PETA works on the idea that- "Animals are not ours to experiment on, eat, wear, use for entertainment, or abuse in any other way." Ingrid Newkirk, the current president and the founder of PETA took up the case of inhuman treatment towards 17 macaque monkeys in laboratories for research purposes in Maryland, USA with her husband and fellow activist who worked in the very same laboratory, which eventually led to PETA's popularity across the world. PETA India started in the year 2000 and was popularized by animal activists and enthusiasts. Things completely changed when PETA took up the Jalikattu case in 2016 so aggressively that many southern states wanted PETA to be banned in India. During this period PETA was in the limelight for not only for its cause but also its controversies. Over the years PETA has been very vocal on social media and have been ridiculed for giving undue importance to trivial issues like changing names of towns and also aggressively calling out people who choose to eat meat. PETA continuously strives to remove the scars that theories like "speciesism" have left upon humankind but fails to do so given their aggressive and sometimes ridiculous approaches. In India, PETA has lost the respect it was given in the beginning and is mostly seen as an aggressive and biased association. -DISHA SHANBHAG

horrific stories of attacks on stray dogs. can show who does it. The dark triad is animals, such as rescuing spiders in the seen in people who abuse animals, are bath, feeding birds, treating pets as a Some of the brutal cases gain popularity

PSYCHOLOGY OF ANIMAL CRUELTY AND TORTURE

on social media as well. 'A pregnant goat was gang-raped by 8 men in Haryana', 'A street dog was left to die when workers poured hot tar on it while it was sleeping', Elephants being subjected to torture by traffickers in Rajasthan', and sadly the list goes on. In Kerala's Ernakulam district, 24 strays, including puppies, have been reportedly

Almost every day, India wakes up to

killed by the local panchayat recently. A couple of days prior, eight stray dogs were killed, tied four of them to a pole and paraded the carcasses in Kottayam town

as an ugly protest against the stray animal menace. People for Ethical Treatment of Animals (PETA) had urged the politicians to undergo psychiatric counseling and evaluation after they decided to kill the strays. But what typically possesses anyone to home. Given that most children learn

spontaneous

abuse

seems

inflict such acts of intentional animal anti-social behavior from those around

torture and cruelty (IATC)? While animal them, the best way to prevent it is

and

rapists, and serial murderers. The three member of the family, has the potential to Machiavellianism, make a positive lasting impression on characteristics are narcissism, and psychopathy.

When the science of behavioral profiling began to emerge in the 1970s, one of the most consistent findings reported, by the FBI profiling unit, was that childhood IATC

appeared to be a common behavior among serial murderers and rapists (i.e., psychopathic those with traits characterized by impulsivity, selfishness, and lack of remorse). Additionally, there is some research showing that in some circumstances, IATC is sometimes used to coerce, control and

teaching by example. Pro-social behavior

children. -MITHILA KUDALKAR References-

https://www.scoopwhoop.com/animal-cruelty-in-indi

https://www.psychologytoday.com/intl/blog/in-exce ss/201611/the-psychology-animal-torture

https://www.huffingtonpost.in/2016/10/04/15-laws-e veryone-should-know-to-prevent-animal-abuse-in-in

Plants and Animal Welfare Society (Dombivali) -

dia_a_21491228/ Animal welfare helplines Karuna for animals in distress (Andheri) -098191 00100 Society for the prevention of cruelty to animals intimidate women and/or children to be (Thane) - 08767612344 silent about domestic abuse within the PETA India (Juhu) -02240727382

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thoughtless, there are characteristics that by parents and other role models towards



KALKIBAAT

The Hindu Puranas describe a number of cycles within cycles. Discussions of these cycles can become confusing because different cycles are measured in different types of units. For example, the cycles are often described in units of deva years, each of which equals 360 human years.

Maha Yugas

The smallest cycle is called a Maha yuga. A Mahayuga is 4,320,000 human years. Each Mahayuga is subdivided into the

following four ages, whose lengths follow a ratio of 4:3:2:1.

The first age, the Satya Yuga, is 1,728,000 human years. It is also known as the Golden Age or Age of Truth. The qualities of this age are: virtue reigns supreme; human stature is 21 cubits; lifespan is a lakh of years; and death occurs only when willed. The second age, Treta Yuga, is 1,296,000 human years and is also known as the Silver Age. The climate is three quarters virtue and one quarter sin; human stature is 14 cubits; the human lifespan is 10,000 years. This third age, Dvapara Yuga, is 864,000 human years. In the so-called Bronze Age, the climate is one half virtue and one half sin; lifespan is 1,000 years. The age in which we are presently living, the Kali Yuga, is 432,000 human years. The climate is one quarter virtue and three quarters sin; human stature is 3.5 cubits; lifespan is 100 or 120 years.

Toward the end of a Kali Yuga, various calamities cause a good deal of destruction. Baba Hari Das states that creation disappears at the end of a Mahayuga and remains in seed form inside Brahma. However,

other sources do not suggest anything so drastic; it is possible that Hari Das was really thinking of the end of Brahma's daytime or Brahma's life when he wrote this description.

Brahma Days (Kalpas)

A kalpa is a single daytime period in the life of Brahma, the creator god. Two kalpas are a day and a night of Brahma. Each kalpa is composed of 1,000 Mahayugas. A kalpa is thus equal to 4.32 billion human years.

At the end of Brahma's daytime period, the Three Worlds (Bhuloka, Bhuvarloka, Swarloka) and the seven underworlds (of the nagas) are temporarily dissolved (pralaya); that is, the

same folks can be reincarnated when the next day of Brahma begins. The Vishnu Purana states that at the end of the daytime period of Brahma, a dreadful drought occurs that lasts 100 years, and all the waters are dried up. The sun changes into

seven suns, and the three worlds (Bhurloka or Earth, Bhuvarloka or the lowest heaven, and

Svarloka or the next higher heaven) and the underworlds are burned bare of life. The inhabitants of Bhuvarloka and Svarkloka flee to the next higher heaven, Maharloka, to escape the heat; and then to the next higher

heaven, Janaloka.

The souls of individuals also continue to exist, to be reincarnated in the next daytime of Brahma.

Then mighty clouds are formed and the three worlds are completely flooded with water. The lord Vishnu reposes on the waters in meditative rest for another whole kalpa (4.32 billion years) before renewing the creation. The destruction that takes place at the end of a daytime of Brahma is referred to as naimittika, which is incidental or occasional. The characteristic of this destruction is that the three worlds continue to exist but are made uninhabitable.

Brahma Life

A year of Brahma is composed of 360 day/night cycles of Brahma, or 720 kalpas, or 3,110,400,000,000 human years. A hundred such years make a Brahma Life.

At the end of the life of Brahma, all worlds are completely dissolved (mahapralaya). No one is reincarnated from these worlds ever again.

-Shwetal Funde

IN CHINA, BIG BROTHER WATCHES YOU

surprised.

declared.

Laws and regulations clearly prohibit that infringing upon national honour and life."

the CCP's narrative - be it the massacre vainly. Square in 1989 or comparisons of cited moral decline as one of the three any qualms, but we should.

sovereignty of China should be borne fruit; of the twenty largest tech harmony".

On the 23rd of April, China quietly President Xi Jinping to Winnie the Pooh greatest challenges facing the country. banned Wikipedia - and no one was - is studiously blotted out. Every day, Naturally, the CCP has stepped in to the long arm of government censorship serve as the moral guardian of China. It Internet censorship is official policy for controls more and more of the Internet. shields its citizens from evil influences the Chinese Communist Party (CCP). In In 2018, newly-released party guidelines which can corrupt the values of its an official report in 2010, the CCP prohibitedmaterial that sensationalizes citizens. That which is vulgar - vulgar "bizarre or grotesque" criminal cases; according to the CCP - is not allowed to ridicules China's historical exist. So no depictions of underage the spread of information that contains revolutionary leaders, or current drinking, no gambling, no content subverting state power, members of the army, police or "scantily-clad" images. But that's not all. undermining national unity [or] judiciary; or that "publicizes the luxury Men's earrings apparently destroy the manhood of the nation, according to interests... Within Chinese territory the China regularly flexes its bulging the government, and have to be blurred internet is under the jurisdiction of economic muscles by forcing foreign out on the Internet. Rappers can only Chinese sovereignty. The internet competitors to play by its rules. This has make rhymes about "peace and

respected and protected. companies in the world, nine are What's the goal here? Well, naturally Bluntly put - "Yes, we control the Chinese. Insulated from the might of there's the usual impulse of an Internet. No, it's none of your business." Western multinationals, autocratic state to control the thoughts, The Chinese state has more than just home-grownstart-ups—were—free—to words, and deeds of its citizens. But laws and regulations on its side. It has reach out to hundreds of millions of there seems to something deeper at been polishing its apparatus for newly prosperous Chinese. Where the play. The CCP has repeatedly stated its censoring the Internet for nearly three rest of the world has Amazon, Google, desire to turn China into a paragon of decades now. It has blocked access to and WhatsApp, China has Alibaba, morals based on Communist Party some of the world's biggest websites - Baidu, and Weibo, all multibillion-dollar philosophy and Confucian ideals. Google, Facebook, WhatsApp, and companies.And the foreign companies Corrupting "Western" ideals of free Quora among them. have begun to bend the knee. Google is speech don't have any space here. The The rules are simple. The Chinese reportedly creating a censored version end goal is to make a society of Internet says what the Party doesn't of their search engine, while Zuckerberg patriotic, dutiful citizens loyal to the mind it saying. What is inconvenient to is busy courting Xi Jinping - so far, state. Is the end worth the means? Can any end justify the means? The Chinese of unarmed protestors in Tiananmen 47% of respondents in a Chinese poll Communist Party certainly doesn't have

-Aditya Negi

-Natasha Desai

STRIKE UP THE FUSION

Bands like the Beatles and the Rolling Stones all gave fusion and match tunes. It's only a matter of opening up our minds

Music is arguably the most emotional and expressive art However, not everybody is completely convinced that form; probably because it is so deeply intertwined with both merging musical cultures is a good idea. the human soul as well as culture. The creation, classical tones.

The fusion genre is a combination of two or more genres of

dabbles in everything from metal to jazz, folk, soul and R&B.

performance, significance, and even the definition of music Critics have often pointed out that artists who practice vary according to culture and social context. Indeed, fusion styles begin to waver when playing traditional solos, throughout history, some new forms or styles of music have and plenty claim that this isn't the right spirit for presenting been criticized as "not being music", including Beethoven's classical music pieces. There are also many people still Grosse Fugestring quartet in 1825, early jazz in the sceptical about the fact that a blend of Indian and western beginning of the 1900s and hardcore punk in the 1980s. A instruments can be mellifluous and not harsh, which can recent musical trend to suffer this initial skeptical reception spell trouble for fusion artists; its not easy to win over represent.

that later evolved into acceptance and enjoyment is fusion - crowds with different listening styles, like classical purists more specifically, the fusion of western music with Indian and the gig-hopping group. The chance of mistakes also increases with the number of genres that you try to music. The union of Indian music with western rock and roll Despite all the detractors, fusion is doing well both in India started in the late sixties, and slowly spread from Europe and around the world. Fusion has one massive advantage: and North America across the globe. Artists everywhere usually a particular genre only appeals to a niche audience, grabbed the opportunity to experiment with a fresh take on but as the variety of music used in fusions increases, compositions, producing some iconic pieces of music. respective audiences will come to explore the world of mix

their own little spins and quirks, creating hits like Paint It - and ears - to the limitless possibilities that blending our Black. The current generation of rising fusion artists rich musical heritage can bring.



INNOVATION...THAT KEEPS A CHECK ON YOUR GUTS!

We as a species have come this far because of evolution that has taken place slowly and consistently. But after Industrialization, we also have started to tinker with the strings of evolution. Our way of selective evolution is faster and voluntary. Selective evolution is the only thing because of which humans have sustained many of the threats that have been part of recent human history. The groundbreaking advances in medicinal chemistry are the reason behind the increasing growth of the human population. And the branch of science which has largely impacted these

advances is Bio- Tech or Biological Technology. Bio-Tech is the branch of science which exploits biological processes for industrial and other purposes.

A recent breakthrough in this branch of science is the use of Gut Probe as a pill. A gut probe is a device that uses sensors to gather health-related information from one's belly. The engineers at MIT (Massachusetts

hard to make this project even better. They have published these results in Nature Communications.

The design for the gut probe pill is inspired by the defense mechanisms of puffer fish or blowfish. The puffer's tough, fast-inflating body was exactly what Zhao was looking to replicate in hydrogel form. The team had been looking for ways to design a hydrogel-based pill to carry sensors into the stomach and stay there to monitor (e.g. vital signs or disease states) for a relatively long period of time.

They realized that if a pill were small enough to be swallowed and passed down the esophagus, it would also be small enough to pass out of the stomach, through an opening known as the pylorus. To keep it from exiting the stomach, the group would have to design the pill to quickly swell to the size of a ping-pong ball. "Currently, when people try to design these highly swell-able gels, they usually use diffusion, letting water gradually diffuse into the hydrogel network," Liu says.

"But to swell to the size of a ping-pong

contractions in the stomach. "The stomach applies thousands to millions of cycles of load to grind food down," Lin explains. "And we found that even when we make a small cut in the membrane, and then stretch and squeeze it thousand times, the cut does not grow larger. Our design is very robust."

The researchers further determined that to deflate the pill the patient needs to drink a solution of calcium ions which is at a concentration higher than what's in milk. Steiger and Traverso embedded small, commercial temperature sensors into several pills, and fed the pills to pigs, which have stomachs and gastrointestinal tracts very similar to humans. The team later retrieved the temperature sensors from the pigs' stool and plotted the sensors' temperature measurements over time. They found that the sensor was able to accurately track the animals' daily activity patterns up to 30 days. "Ingestible electronics is an emerging area to monitor important physiological conditions and biomarkers," says Hanqing Jiang, a professor mechanical of and aerospace engineering at Arizona Institute of Technology) have designed an indigestible Jell-O like pill that can be swallowed.

Upon reaching the stomach it expands rapidly to the size of small, squishy ping-pong ball big enough to stay in the stomach for a desired period of time. The theoretical utility of this Gut Probe Pill is that it can be embedded with various types of sensors to examine different things that happen in our stomachs. Practically, MIT engineers have planted a sensor that tracks the temperature of the stomach for up to 30 days. The removal of the pill from one's gut is also very easy, as it just requires the patient to drink a solution of calcium which reacts with the pill and as a result of the pill contracts to original size and then can be easily passed out of the body.

This new kind of pill is made of hydrogels. Hydrogels are a mixture of water and polymers of gel which resembles the consistency of a Jell-O.

ball takes hours or even days. It's longer than the emptying time of the stomach." The researchers instead looked for ways to design a hydrogel pill that could inflate much more quickly, at a rate comparable to that of a startled pufferfish. The result of all the research and development was a small, Jell-O-like capsule, made from two hydrogel materials. The inner material contains sodium polyacrylate which is a superabsorbent particle. These particles are used in commercial products such as diapers for their ability to rapidly soak up the liquid and inflate. The researchers realized, however, that if the pill were made only from these particles, it would immediately break apart and pass out of the stomach as individual beads. So they designed a second, protective hydrogel layer to encapsulate the fast-swelling particles. This outer membrane is made from a multitude of nanoscopic, crystalline chains, each folded over another, in a nearly impenetrable, gridlock pattern. This pattern of arrangement is also one of the feats of the team of engineers which they have published in earlier papers.

State University, who was not involved in the work. "Conventional ingestible electronics are made of non-bio-friendly materials. Professor Zhao's group is making a big leap on the development of biocompatible and soft but tough gel-based ingestible devices, which significantly extends the horizon of ingestible electronics. It also represents a new application of tough hydrogels that the group has been devoted for years."

In coming years, the researchers envision the pill to be able to deliver a number of sensors to stomach safely. For example to pH levels, or signs of certain bacteria or viruses. Tiny cameras may also be embedded into the pills to image the progress of tumors or ulcers, over the course of several weeks. Zhao says the pill might also be used as a safer, more comfortable alternative to the gastric balloon diet, a form of diet control in which a balloon is threaded through a patient's esophagus and into the stomach, using an endoscope. "With our design, you wouldn't need to go through a painful process to implant a rigid balloon," Zhao says. "Maybe you can take a few of these pills instead, to

The inclusion of hydrogels makes the pill expandable while reaching the stomach and also makes it impervious to the effects of the concentrated acidic environment of the stomach. This innovative design of the gut probe is more biocompatible and long lasting than current indigestible sensors. The downside of conventional indigestible sensors is that they can only remain in the stomach for a few days, or are made of hard plastics or metals which cannot pass through the gastrointestinal tract effectively.

"The dream is to have a Jell-O-like smart pill, that once swallowed stays in the stomach and monitors the patient's health for a longer time as much as a month," says Xuanhe Zhao, associate professor of mechanical engineering at MIT. Zhao and senior collaborator Giovanni Traverso along with lead authors Xinyue Liu, Christoph Steiger, and Shaoting Lin, have published their results of experimentation and are also working



"You would have to crack through many crystalline domains to break this membrane," Lin says. "That's what makes this hydrogel extremely robust, and at the same time, soft. In the lab, the researchers dunked the pill in various solutions of water and fluid resembling gastric juices and found the pill inflated to 100 times its original size in about 15 minutes. This is much faster than existing swell-able hydrogels." Once inflated, Zhao says the pill is about the softness of tofu or Jell-O, yet surprisingly strong. To test the pill's toughness, the researchers mechanically squeezed it thousand times, at forces even greater than what the pill would experience from regular

help fill out your stomach, and lose weight. We see many possibilities for this hydrogel device." This research was supported, in part, by the National Science Foundation, National Institutes of Health, and the Bill and Melinda Gates Foundation.

Innovation will always knock on our doors with safe and effective controls to make our life easier. A gut probe as a pill to facilitate stomach related studies is another feather in the cap of global advances in science. It will make things much easier and clearer in days to come regarding innovative ideas to study gut related issues.

-SUVIN MAYEKAR

Glossary:-

- •Probe: a blunt-ended surgical instrument used for exploring a wound or part of the body.
- •Polymer: a substance which has a molecular structure built up chiefly or completely from a large number of similar units bonded together.

THE NATURAL WONDER

We all have studied erosion during our school years. But do you know that one of the most remarkable natural wonders of the world is due to erosion? So this month, we'll be learning about the Grand Canyon of Arizona.

The Grand Canyon is indeed a very big hole in the ground. It is 277 miles (446 km) long, up to 18 miles (29 km) wide and more than a mile

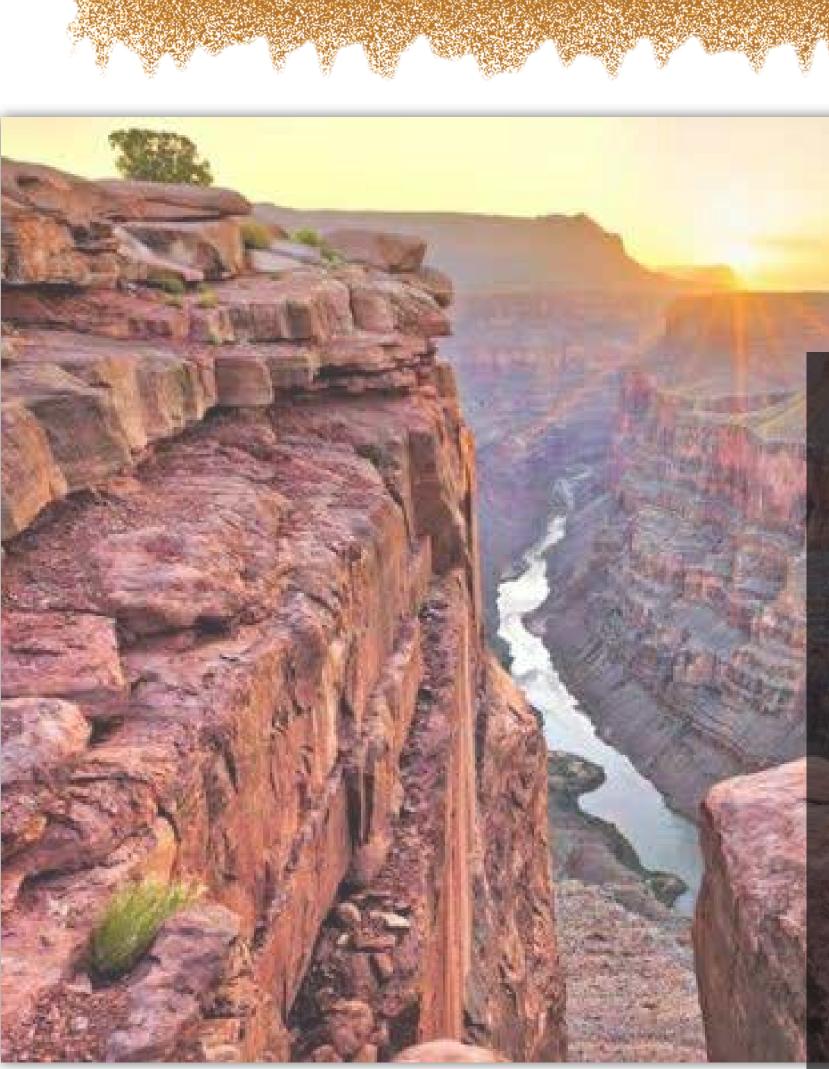
(6,000 feet / 1,800 meters) deep. It is the result of constant erosion by the Colorado River over millions of years.

"canyon" and generally implies a smaller, particularly narrow feature.

So is that a valley? If not, then what exactly is a canyon? And what is the difference between them? A valley is a landform characterized by a

low-lying area of land surrounded by high areas, such as mountains or hills. Valleys can be a wide variety of shapes and sizes. They are either erosional features, carved by water or glacial ice, or structural features, caused by rifting. While canyon is a type of erosional valley with extremely steep sides, frequently forming vertical or nearly vertical cliff faces. The term "gorge" is often used interchangeably with





How was the Grand Canyon formed? shows the rock layers with the oldest on

story of how the Grand Canyon came to them. layers and layers of rock that the canyon ago, through the action of plate winds through. The story begins about 2 tectonics, the whole region was uplifted, billion years ago when igneous and resulting in the high and relatively flat metamorphic rocks were formed. Then, Colorado Plateau.

To look at rock layers, geologists use a tributary streams led to the canyon's diagram called a stratigraphic column. It widening.

The specific geologic processes and the bottom, and the youngest on the top. timing that formed the Grand Canyon That means that the bottom layer was spark lively debates by geologists. The formed first, and every subsequent layer general scientific consensus, updated at was formed later, with the youngest a 2010 conference, holds that the rocks on the top. In geology, this is Colorado River carved the Grand Canyon referred to as the principle of beginning 5 million to 6 million years ago. superposition, meaning rocks on the top Let us take a look at its geology. The are generally younger than rocks below be begins with the formation of the Then, between 70 and 30 million years

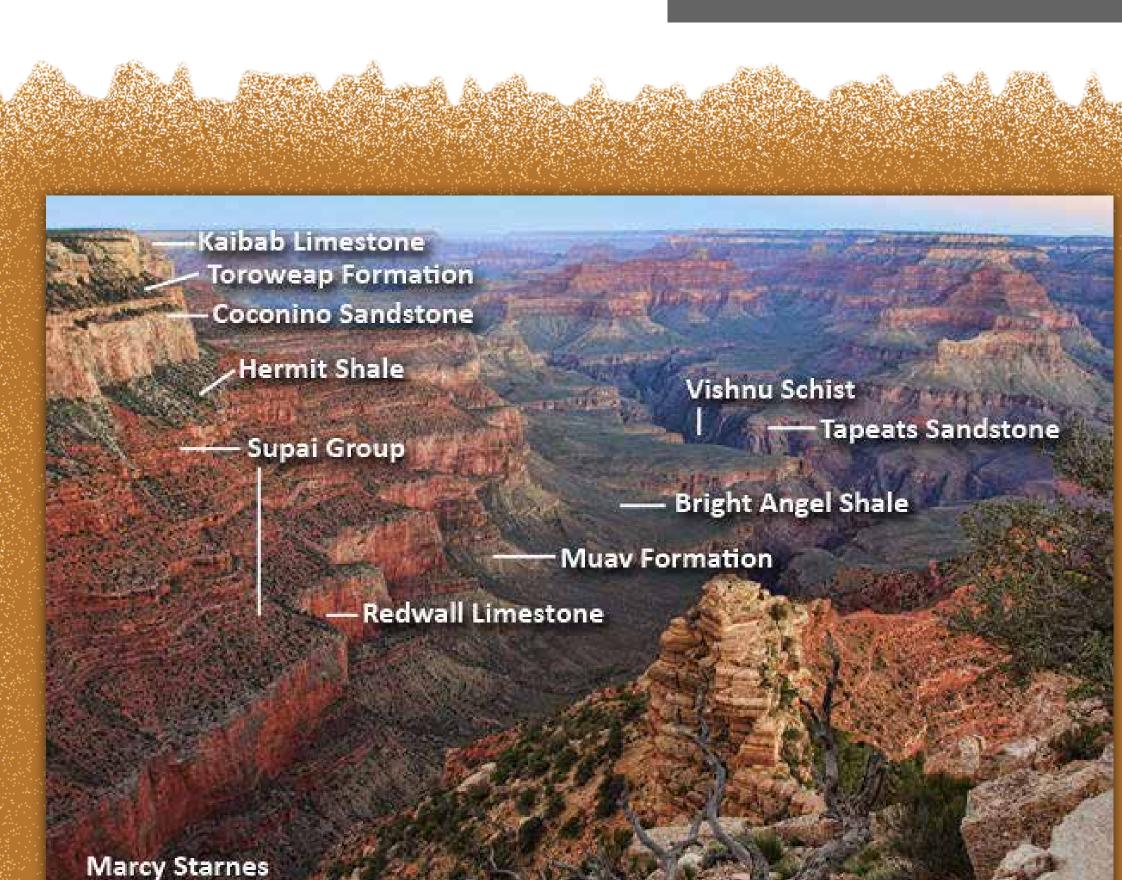
layer upon layer of sedimentary rocks Finally, beginning just 5-6 million years were laid on top of these basement ago, the Colorado River began to carve its way downward. Further erosion by

> Kaibab Limestone is found at elevations up to 9,000 feet. How did these sea floor rocks attain such high elevations? Uplift of the Colorado Plateau was a key step in the eventual formation of Grand Canyon. The action of plate tectonics lifted the rocks high and flat, creating a plateau through which the Colorado River could cut

Plateau occurred is puzzling. Just how and why uplift occurred this way is under investigation. While scientists don't know exactly how the uplift of the Colorado Plateau occurred, a few hypotheses have been proposed.

down.The way in which the uplift of the Colorado

The walls of the canyon are countless shades of brown, yellow, red and gray. As the sun moves across the sky, the light changes making the vista transform dramatically over the course of the day. So if you are a



rocks.

The Uplift of the Colorado Plateau

rifting - to form fissures or breaks

The Kaibab Limestone, the uppermost layer of rock at nature person and is keen to know more about this Grand Canyon, was formed at the bottom of the ocean. natural marvel add this place to your bucket list whose Yet today, at the top of the Colorado Plateau, the history is as grand as the canyon itself!

Appendix: erosion - the process of eroding

igneous rock - type of rock that makes up earth's crust Metamorphic rock - type of rock of pre-existing rock mass Stratigraphic - relating to rock layers Plate tectonics - the large-scale movement of tectonic plates

Neha Raut, TYBSc Bioanalytical

AN EXOTIC UNDERWATER ECOSYSTEM!!



One of the seven natural wonders of the world is the Great Barrier Reef located in the Coral Sea, off the coast of Queensland, Australia. There are many such coral reefs present throughout the world. So, let's' have a quick tour of this exotic underwater ecosystem!

Coral reefs are some of the most diverse ecosystems in the world and are technically a submerged structure made up of many different polyps, or small marine invertebrates. Coral polyps, are the animals primarily responsible for building reefs. These polyps are unable to move and cluster with other corals to form large reef building colonies, graceful flowing fans, and even small, solitary organisms. They secrete calcium carbonate which binds them together to form a reef. Each of these individual animals is also covered with a hard exoskeleton, which makes coral reefs appear very strong and

They have a symbiotic relationship with algae. Shallow water corals have a mutual arrangement with photosynthetic algae called zooxanthellae, which live in their tissues. The coral provides a protected environment and the compounds zooxanthellae need for photosynthesis. In return, the algae produce carbohydrates that the coral uses for food, as well as oxygen. The algae also help the coral to remove waste. Deep-sea corals live in much deeper or colder oceanic waters and lack zooxanthellae. Unlike their shallow water relatives, which rely heavily on photosynthesis to produce food, deep sea corals take in plankton and organic matter for much of their energy needs.

Occupying only about one percent dolphins the main exception. variety includes fish, seabirds, of the sea." worms, shrimp, cleaner shrimp, spiny temperature lobsters these organisms. reefs, with visiting cetaceans such as Lakshadweep Islands and Malvan.

of the ocean floor, coral reefs are Because of the diversity of life found home to about twenty-five percent in the habitats created by corals, of the world's marine species. This reefs are often called the "rainforests" sponges, cnidarians (which includes Coral reefs vary greatly in size

some types of corals and jellyfish), and type, and they are very sensitive crustaceans (including to water properties such as and chemical and crabs), molluscs, composition. Some of the most echinoderms (including starfish, sea famous coral reefs around the world urchins and sea cucumbers), sea includes. The Great Barrier Reef of squirts, sea turtles and sea snakes. Australia, the Red Sea Coral Reef, The reef provides spawning, nursery, the Florida Reef and many more. In refuge and feeding areas for all India Coral reefs are present in the Aside from areas of Gulf of Kutch, Gulf of humans, mammals are rare on coral Mannar, Andaman & Nicobar,



Coral reefs deliver ecosystem services to tourism, fisheries and coastline protection. Reef structures play an important role as natural breakwaters, which minimize wave impacts from storms such as cyclones and hurricanes. Coastlines protected by coral reefs are also more stable in terms of erosion than those without. They are also a source of food and new medicines. Fishing, diving, and snorkelling on and businesses.

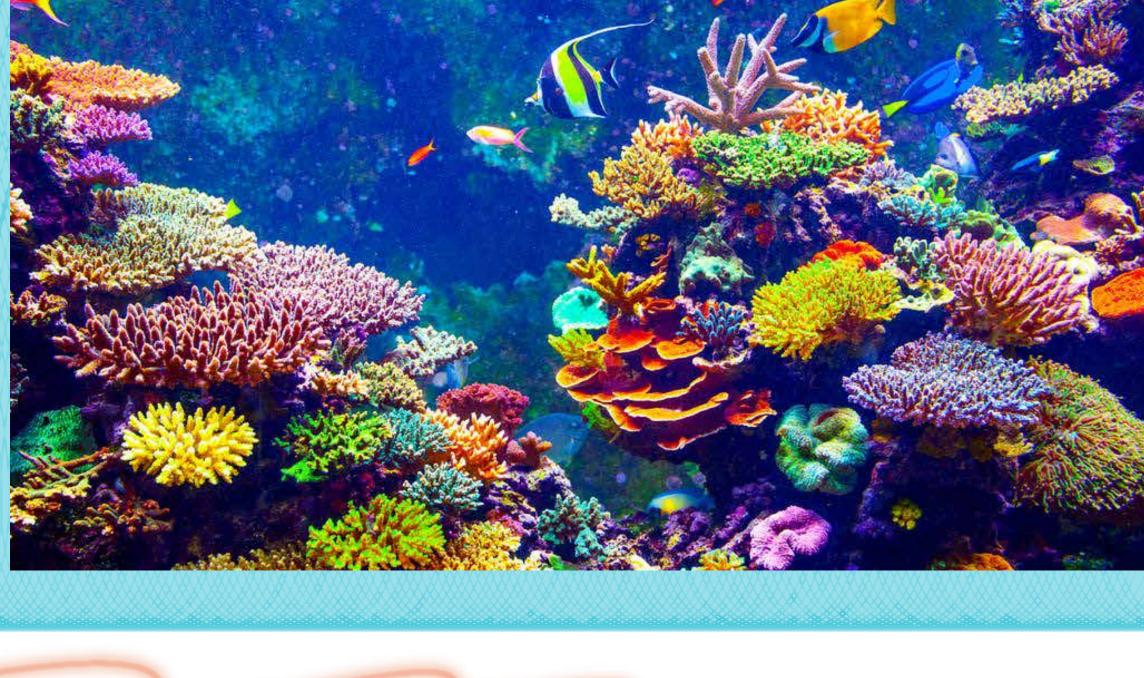
near reefs add hundreds of millions of dollars to local Also, their beauty makes coral reefs a powerful attraction for tourism, and well managed tourism provides a sustainable means of earning foreign currency and employment for people around the world, even in remote

areas of developing countries. Unfortunately, coral reef ecosystems are severely threatened. Some threats are natural, such as diseases, predators, and storms. Other threats are caused by people, including pollution, sedimentation, unsustainable fishing practices, and climate change, which is raising ocean temperatures and causing ocean acidification. Many of

these threats can stress corals, leading to coral bleaching

coral polyps expel algae that live inside their tissues and hence, they are unable to produce their food. Efforts are being take to promote responsible fishery management and habitat protection. Monitoring of the reefs and many laws and acts are put forward to help sustain these reefs. Thus, these beautiful coral reefs are our heritage to pass on to the generations to come and we must conserve it!

these delicate ecosystems. Coral bleaching occurs when



and possible death, while others cause physical damage to

Appendix:

Submerged - under the surface of water Coral Polyps - tiny, soft-bodied organisms

Solitary - living alone Exoskeleton - an external covering

Algae - Aquatic photosynthetic organisms

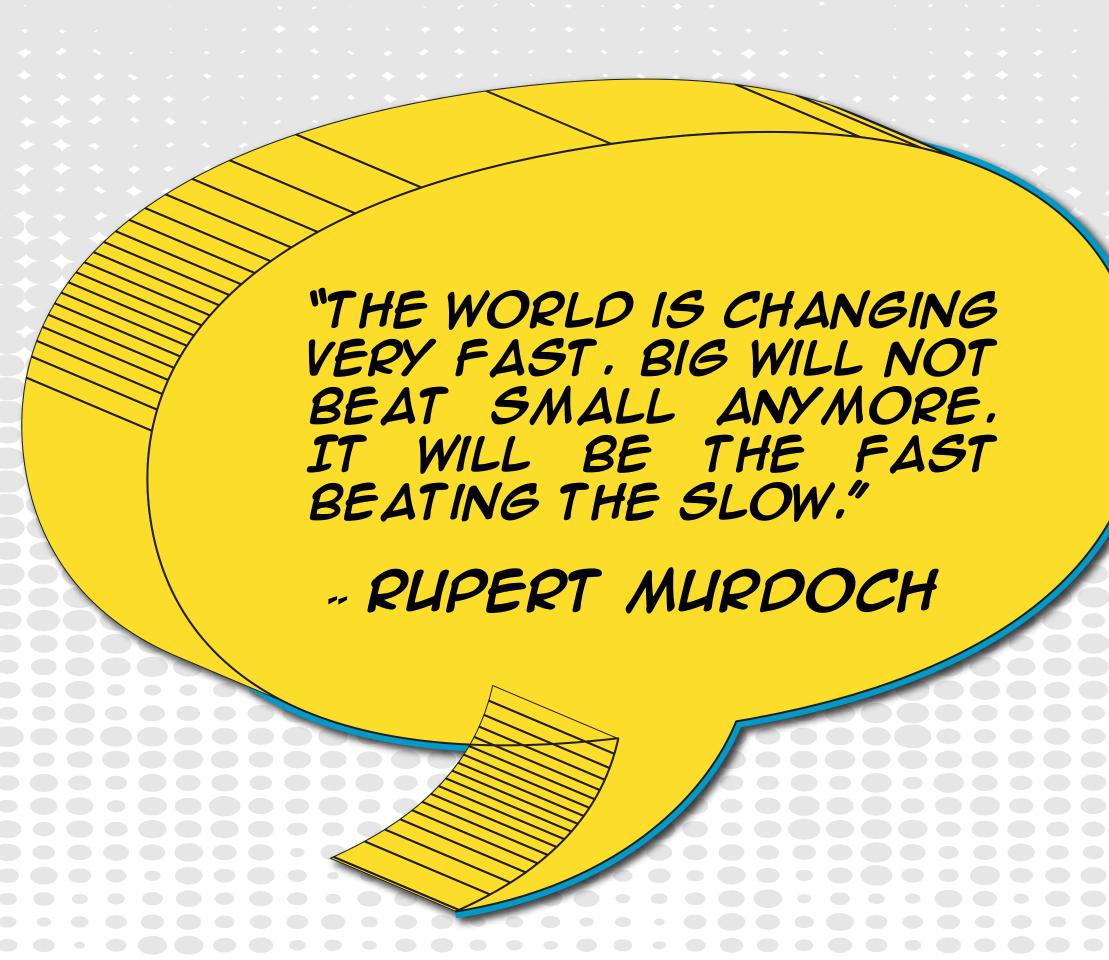
Photosynthetic - Capable of carrying out photosynthesis Zooxanthellae - a type of photosynthetic algae

Plankton - very small plants and animals that float on the surface of the sea and on which other sea animals feed

Prajakta Velankar

TYBSc Bioanalytical





Nowadays, we see digital transformation happening in almost every industry. Travel industry is no exception. Internet and digitalization have made travelling easier.

Booking of flights and hotels through online portals is so much more convenient than walk-in travel agencies. Google Maps will never let you go off-track again. Travelling as a vegetarian is easier because of apps like HappyCow. Miscommunications have become less due to handy e-translators. You'll never pack too much or too less if you use Pack Point. Flush Toilet locates public restrooms closest to you. There's an app for almost everything. So, a phone and internet is all you need for travelling expertly.

APPS TO HAVE IF YOU ARE A TRAVEL BUFF:



Trip Advisor

It's a social networking app ,where, after making your profile you can follow your friends, travel outlets and travel experts. It allows you to book flights, hotels and find the best activities to do in a particular place. You can read what other people are saying about a particular place and also ask questions to clear your doubts. You can create trips and save all the fun things you have in mind. 'Trips' is a feature to create your own itineraries with the help of all the information the app provides. You can look at other people's 'Trips' and pick up ideas from there as well. Travel outlets also share information about current situations of regions, so you can know about issues that could affect you. You can also collaborate with your friends and create trips together privately using the 'Trips' tab. TripAdvisor is an all-rounder app which makes planning a trip seem like a cake walk.

Google Trips

This app helps you with organized planning of your trips. It finds your reservations/bookings for hotels, flights, restaurants, etc. from Gmail and shows all of them together in one place. It provides you with comprehensive information about the place you have selected, like information about discounts, accessibility, currency, emergency contacts, activities, etc. You can save activities and places that you like and they would appear in a separate tab. You can create trips and sort them by date. On Google Trips you'll also find ready-made day plans to go along with and you can also pin new sights to the day plan's map.



izi.TRAVEL

It's the audio guide in your pocket. Once you turn your location on, it will show the tours available around you. The locations that tour includes are pinned on a map, so it's easy for you to follow the itinerary. Just plug in your ear phones and you are good to go. It also has an option of downloading the audios so you can go offline once the audio is downloaded. For some tours, particular places or exhibits are given numbers and so when you click on a particular number on your app's numpad, it starts giving information about that particular sight. Scanning the QR code pasted in museums, parks, etc. also finds the audio guide for that sight on the app.

PERFECT COMPANIONS FOR THE HUNGRY TRAVELLER:

Discovering local food treasures in a new country rates as one of the best travel experiences you can have. Yet sometimes, no matter how much research you do, or how clever you think you are at spotting an authentic local eatery, falling victim to a touristy-food-trap happens.

Here are few apps that would help you take your taste buds on a delectable (and trap-free) culinary adventure.



t is the holy grail of all food apps, has over 70 million reviews worldwide for restaurants, coffee shops, bars, and just about every institution imaginable where you can get something to eat. If you buy something to eat, the chances are substantially high that you will be able to find a review about it on Yelp.



LocalEats is unlike most food apps that will show you every possible place in a location to eat. This app will only show you the places that are really, fully worth your time. You will only be able to see the absolute best places to go based off of magazine ratings, newspapers, and foodie websites—which is so great, because you won't have to waste any time reading bad ratings and going to mediocre spots.



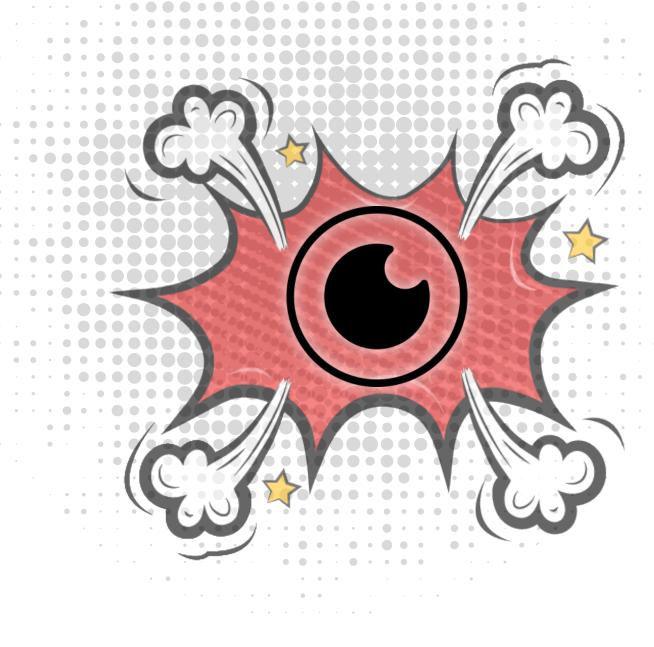
zomato

Zomato

Zomato is a worldwide app that is specifically designed to search for and discover new places to eat at or even order in from. You can browse through pictures, menus, and reviews of the restaurants to decide and even use their map feature to find your way. You can browse through location, cuisine, name or even pre-set collections. It is available in more than 10,000 cities.

Foodspotting

This wonderful food app is designed for the individual who uses his or her eyes to decide on dinner. Working like a social app, Foodspotting utilizes user photos to show you what looks good to eat. Follow your friends and favourite dishes, rather than only restaurants to see what you're interested in trying and what others have loved. You can also browse photos of the best foods in a certain area or peruse user-compiled lists applicable to the city or neighbourhood that you are searching.





Colunching

A fantastic meet-up service that's ideal for solo travellers! Colunching is set up in 20 countries worldwide, and lets members organize an informal group dining experience in authentic local eateries. A great way to make new friends and feast like a local when travelling, Colunching lets you tag along and even initiate a group meal when traveling.

Accommodations are often the most expensive part of a vacation budget. One way to cut that bill is to stay in a vacation rental rather than a hotel. Vacation rentals are houses, apartments, or rooms in homes that you can rent by the night, or sometimes even weeks or months at a time. Some resorts also list accommodations on vacation rental sites.

Vacation rentals have grown in popularity not only because they're often cheaper, but because they offer a different experience. Many people find that staying in someone's home provides a peek into the local culture they couldn't get at a hotel.

Airbnb is the most well-known vacation rental website.

The Airbnb name has become nearly synonymous with vacation rentals. The site lists apartments, homes, condos, rooms for rent, you name it! It even lets you book activities and experiences. Furthermore, Airbnb is a great way to earn side income. The company has a critical mass of both renters and listers. It has 6+ million listings worldwide in 191+

countries. And, it boasts 150+ million active users. We Indians always miss our spices while travelling across the globe, what's better than cooking your own meal with a bit of tadka?

Airbnb generally offers a full furnished kitchen. You just need the ingredients and you are good to go! Whether it's a house, condo, apartment, or cottage, renting a vacation home can lead to a once in a lifetime experience. Not only are you staying in a unique setting, the location could lend itself to more

impactful cultural experiences than you would have staying in a regular hotel. This vacation, let's ditch the traditional hotel and instead try a more home-like vacation.



Fictionaly Young

THE HELICOPTER REBEL

The bright ball of fire was walking down it is another thing to be obsessed with screaming and shouting as they entered the western path in the sky. I was going your son's life. And I, am not in for that. home with my friend while our shadows "Can you believe that this might be the asked me. Ved asked me. We have been best bud- 2:43. So I'll leave by 11." to me.

plied.

This was the last day of my summer holi- cused on trial." college situated in the capital city, New like they did last year." Delhi. To be honest, I chose this college single guy.

It is one thing to care for your child and It was none other than my parents, adding fuel to the fire by fulfilling their

stretched long on the road below us. "When are you leaving tomorrow?", Ved "We got a message telling us that you

last time we're walking home like this?" "My flight is scheduled to take off at killer trying to take you away."

least you are escaping your parents." "Reality is indeed bitter to taste." I re- "Damn right! But you never know, one you a story in bed."

day they might magically appear outside

days. Tomorrow I was leaving for my "Hmm. I hope they don't pull any stunt didn't take my friends seriously whenev-

some commotion.

the party hall.

"What is happening?" I exclaimed.

will be late. I feared that it was some

Dramatic much? Yeah!!!

dies since childhood. He's like a brother "Ugh!! Bro I'm going to miss you. But at "Now come home, honey. I'll make you a nice hot cup of milk and dad will narrate

my hostel and make me feel like an ac- That was humiliating, but also a much-needed eye-opener. Until then, I er they spoke about my possessive parents. There was nothing wrong in anto stay away from my parents. They ... I was in school with my friends, enjoy- swering their constant messages, about aren't as bad as many people think but ing a year-end party. I messaged my when I reached school, when I had they are just a little too controlling. I parents that I will be late. Luckily for me, recess, when I left school, what I ate if I couldn't help but feel sparks of excite- I got a chance to dance with this cute girl drank water or not if I scratched my ment at the thought of living like a free I've been crushing on, but then, we heard head. That day, it dawned on me that I have been raised by a pair of helicopter parents. Worst was the fact that I was

RUNAWAY BEGINS'

demands.

That humiliating moment remained with "No need to call the doctor, just stay me for the next year, courtesy my fellow here with me." schoolmates.

I realized I was standing at the front from leaving for Delhi? door of my house. I rang the bell and Not happening!!! mom opened the door. She looked way.

nickname that I never really appreciated. up! My name is Raghav, not babbu. She and into her bedroom.

in a couple of blankets, a thermometer in and went back to my bedroom. I gadgets. his mouth and a wet cloth folded across couldn't lock the door because there 'Dude, your parents have installed a GPS his forehead.

"What's the temperature?" I asked.

his fever babbu!!"

we can inform the doctor."

"Mom! We need the temperature so that remaining stuff into the suitcase and

yelled, "Freedom!"

ONE MONTH LATER

from my parents. One month was a "lassure you, mom. But now I gotta go. poked their ever-so-curious noses in my changed this soon.

I thought to myself but kept the frame outside the club.

"So who won? You or me? I am not so a frame is too basic, I was expecting victory, my freedom." naïve my darling parents. I knew how something more. You think you see me, screaming the address loud on the well I can too. I can rip through that -Shruthi Narayan and Jui Mande (TYBA).

"Oh you are so dramatic son!" came 'EMERGENCY. GET CAR NOW. MISSION from my Dad.

can't wait to leave.

from opening, quickly dumped all my supervise your activities in a click." pinged Ved,

and reconciliation.

watching out for some sudden intrusion going out somewhere."

Come home, my child."

record period for them to not have Bye."

surprised that the situation had my dorm room to go to the party that away?" After a long pause with a was going to keep me up all night. One fine day, I found a letter and a gift. The party was on in full swing and I was "Yes, please. They are not my parents. In

room, I grabbed a bottle of wine, sat lost your son when you continued to darkness inside you. The game has just before the frame, the very delinquent spy on him. I forgave you for your begun. frame and laughed wickedly, antics, but you! Huh, fitting a camera on Cheers to your defeat cheers to my

As soon as he replied in affirmation, I hurled the phone on the floor and it Now I get it. All this drama to stop me broke into tiny pieces just like the control of my daunting parents over me. I recollected the time when

worried, guess a new drama was on its Mom poured some hot water in a cup I had won a medal in the Science for dad. I think she thought of me as a Olympiad and as proud Indian parents kid stupid enough to not see her dipping marveling at their child's brilliance in "Babbu!!" she called me by this stupid the thermometer in that cup to warm it sciences, they bought me a new phone. After that though, they somehow always knew where I was and with dramatically pulled me inside the house "Look at the temperature now, will whom I was. I confided in Ved and he you?", she squealed. took me to his brother who was into "Look, your dad is ill!" I saw dad covered "I'm calling the doctor." I left the room privacy controls and hacking of

was no lock there. Damn my parents. I tracker and parental control on your device. Not only that, but they also have absolute control over your front camera "Can't you see his state? Don't question I shifted my bookshelf to stop the door and it enables them to view you and

You have no idea how furious I was.

No sooner did I hear the horn of Ved's anyways. I had a party to rock and was Surprise, surprise, surprise, my parents car blaring, I threw my bags from the not going to waste my time on this. Five were standing out there with my mom window and jumped down into his car. minutes later, my mom called and cried bawling her eyes out. Dad then voiced Finally, I heaved a sigh of relief and on the phone begging for forgiveness out, "Raghav babu, I was so worried about you. My Raja beta, you know nothing about the real world. What if "Alright, mom. This is the final time. someone corrupted you under the Anyways I have to go to study, have a influence of drugs. We do not want a test coming up tomorrow." Kalank on your virgin body. What if My life was progressing smoothly, too "Are you sure that you are studying? I some girl clawed you or even worse smooth if I might add. I was constantly mean I would understand that if you are what if she influenced you against us?

The gatekeepers of the club turned to me and asked, "Sir, do you know them? business. However, I won't deny being I smirked to myself as I sneaked out of Should we restrain them and send them hopeful gaze from my parents and curious ones from my mates, I spoke, on my bed in my room. It was a photo having the time of my life. No one here fact, I had to leave everything behind frame with a photo of the three of us knew why I ran away from home and I and restart my life because of them. I from when I was younger. was going to keep it that way. Nobody had also filed a restraining order against Mom had written a really long emotional had to know about my tragic life with them that have clearly been violated. note about how guilty they were and helicopter parents. Three hours into the Don't punish them but send them blah blah blah. 'Not falling for this again', party and there was a huge ruckus away." My parents left disappointed, shocked and offended.

The next morning, having reached my phone will bring you to the club. You façade of caring parents and see the





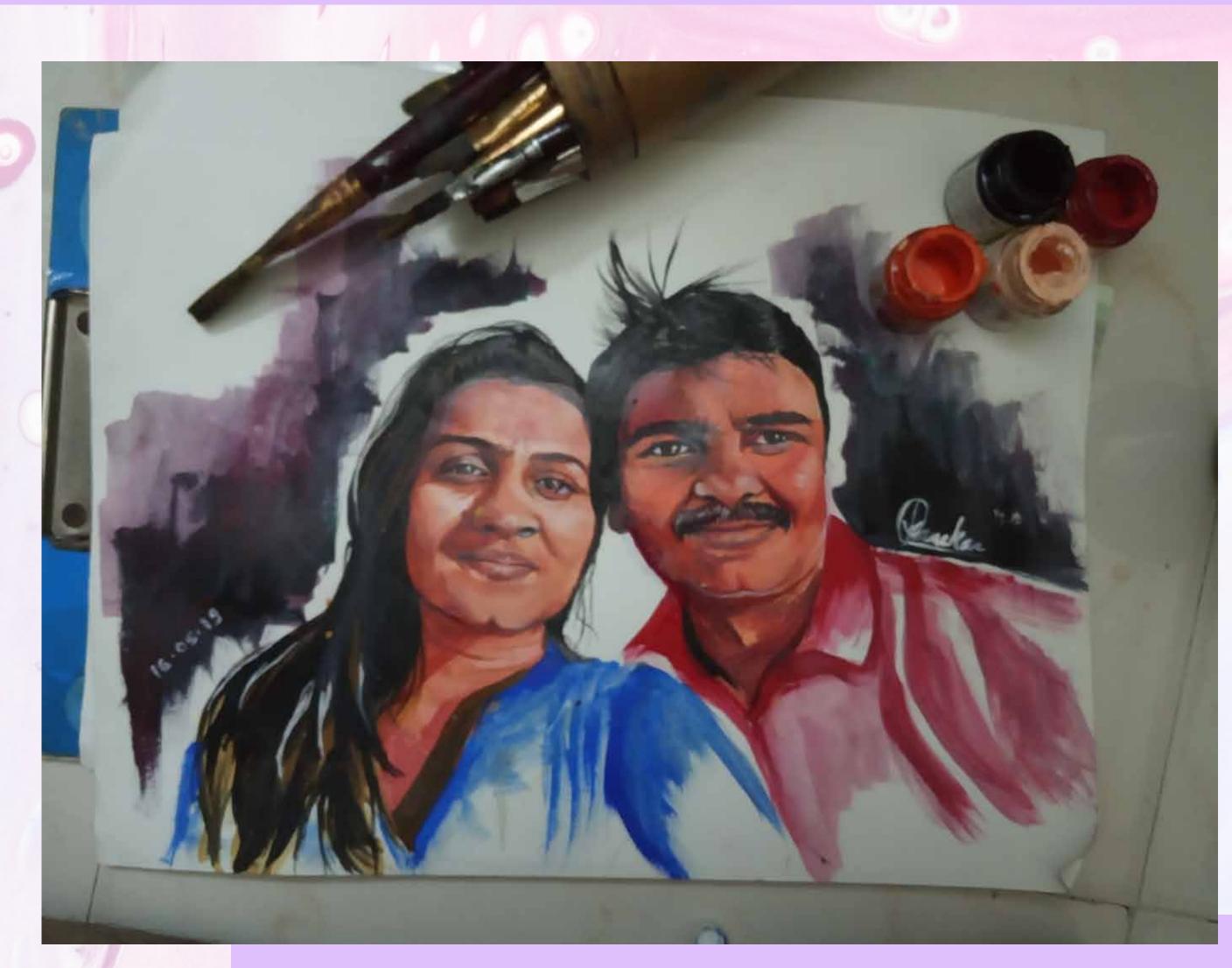
Piece in Focus

Artist's views: My mother used to make various crochet artifacts. I learnt this art from her, at the age of 12. I love crocheting because it's a stress reliever and improves focus. I make woolen gifts for my friends. Due to our crochet skills my mother, my elder sister and I got a chance to participate in the group 'Mother India Crochet queens' that made entry in the Guinnes book of world records for making the largest woolen blanket in the world (2016).

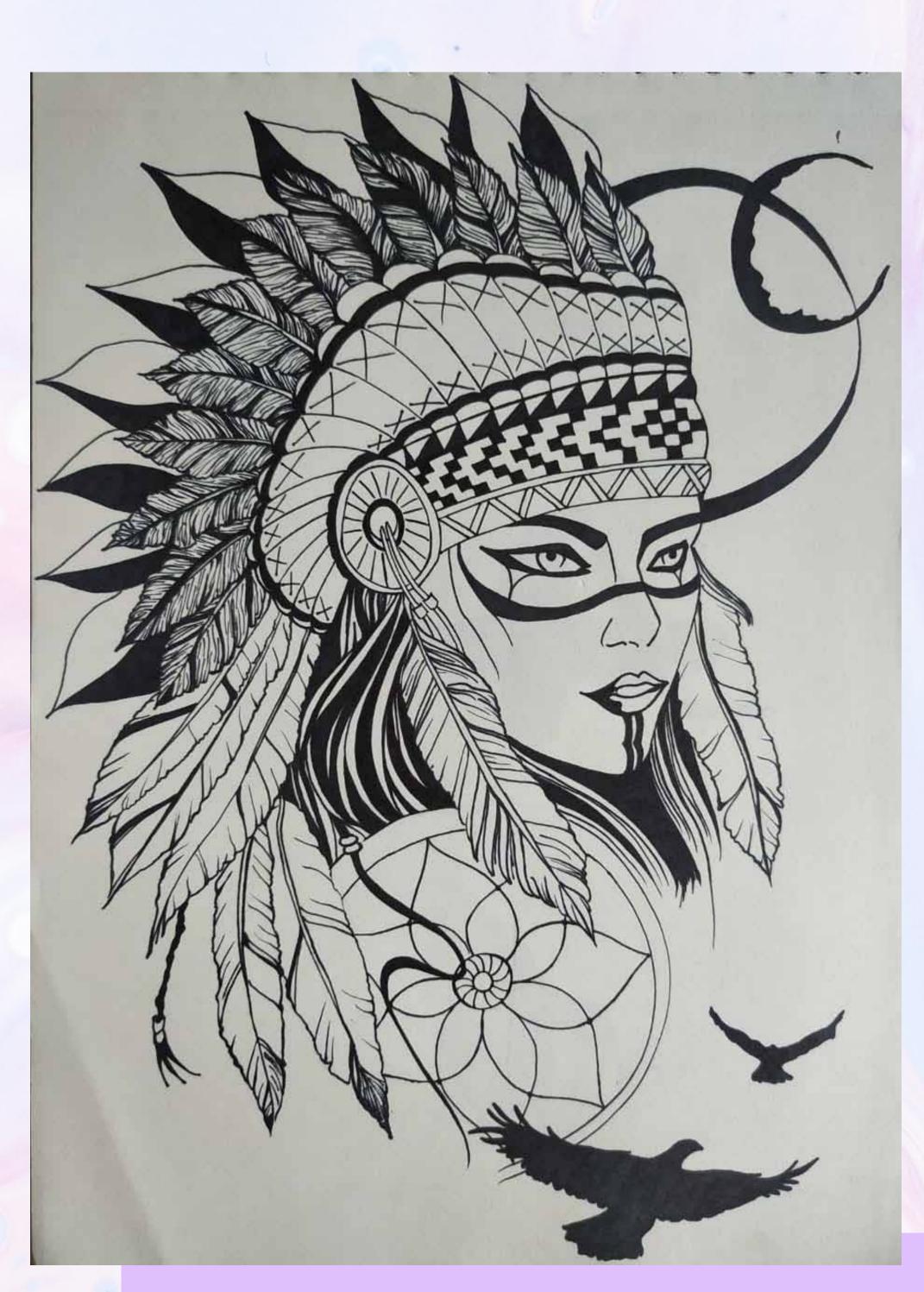
- Maitreyee Sonawane



Rasika Godbole



Vaishali Kanekar



Ishada Kawade



Asawari Shinde



Mrunal Thakur