

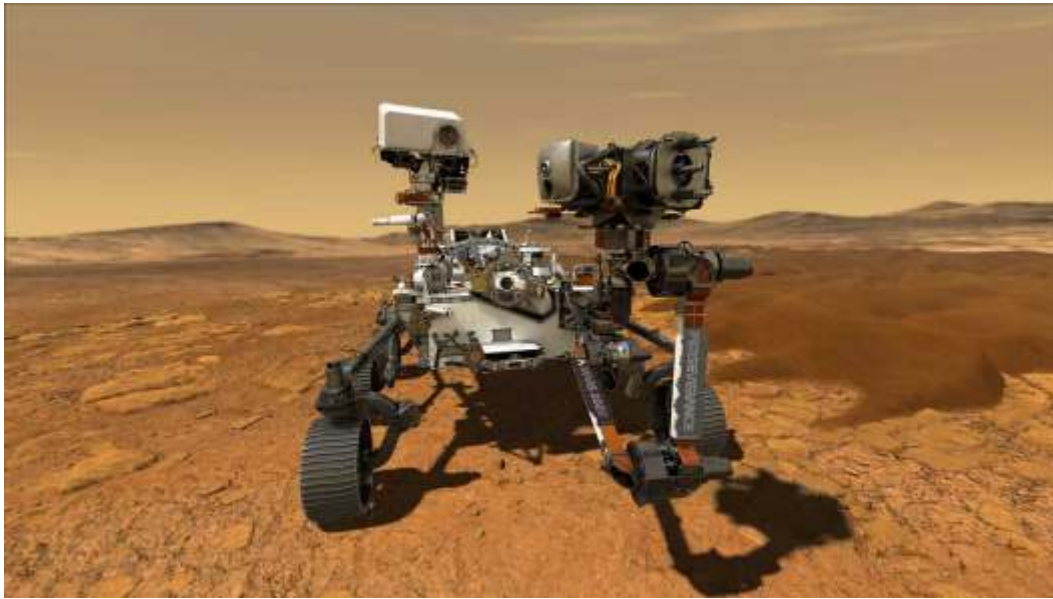
E Pluribus Unum

MARS PERSEVERANCE

193 MEMBER STATES <> ONE UNITED NATIONS

Perseverance and the mystery of The Red Planet

-by Abhimanyu Rao, Grade X, SNS Gurugram



Walking in the “science fiction” aisle of a library, every second book you pick up will have at least one reference to Mars, or Martians, or an Alien Invasion. Well, till now, we have never had any confirmation of any extra-terrestrial life existing.

Since the '60s, the so-called “Space Race” has been going on, and the most successful contestant so far has been the National Aeronautics and Space Administration (NASA) of the United States of America. Recently, NASA sent a rover to Mars. Named “Perseverance”, NASA has said that Perseverance's mission is to “Seek signs of ancient life and collect samples of rock and regolith (broken rock and soil) for possible return to Earth.” This essentially means they want to know if there is, or ever was any life on Mars.

What is Perseverance?

In the past couple of decades, NASA has sent several missions to Mars, and most of those studies have revealed one particularly important find. These missions have led us to the conclusion that Mars was not always the desolate wasteland that we know and love today! **Contrary to that, there is a high possibility that Mars could have supported life in the past!**

From the trails of what look like riverbeds on the surface, to the polar ice caps that display a presence of water on the planet. Since water is essential to life (at least as far as we know), it seems logical to assume that there was life on Mars at one point, and who knows, there might still be!

Main missions

Perseverance's landing site was picked specifically because it had very varied geological area. That way Perseverance would be able to look at a variety of geological areas in a small area, conserving a lot of fuel in the process.

It is also supposed to assess whether or not the Red Planet was habitable in the past, for which it will use a variety of methods. One thing it will do for to accomplish its task is that it will look at some special rocks that are known to preserve signs of life for a long time.

Another remarkably interesting activity that Perseverance will engage in is the collection of samples that will be collected on a later mission by NASA. This means that NASA will definitely need to plan another mission to Mars to collect those samples!

The last main objective of the Mars 2020 Perseverance mission is to demonstrate the usage of some technology on Mars, which brings us closer to using that technology in a manned mission to Mars!

How cool would it be to have The Red Planet be the ending of your postal address? Well, every second, we inch closer to that notion becoming a reality!

Cool Gadgets!

The Perseverance rover has several important gadgets- of course, one expects nothing less from such a futuristic mission. We shall go through some of the most important ones it carries:

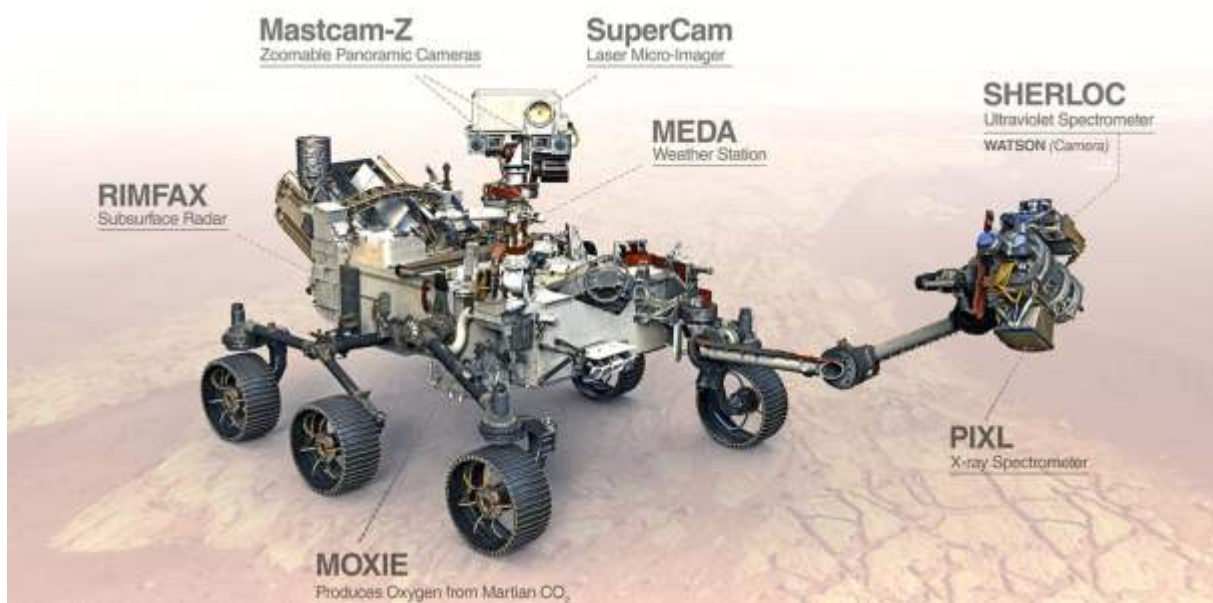
SHERLOC- Short for Scanning Habitable Environments with Raman & Luminescence for Organics & Chemicals, SHERLOC has many overpoweringly “jaw drop” worthy features, including a **black-and-white camera, a spectrometer, and a LASER!** (fun fact- laser is actually short for Light Amplification by Stimulated Emission of Radiation!) These doodads, so to speak, are specifically made to search for organic matter and minerals that seem to have been altered by a damp/wet environment, which could further prove that there was once life on Mars.

Always experimenting, just like the eponymous detective, SHERLOC is carrying a piece of spacesuit, just to see how it fares against the Martian atmosphere. Taking further inspiration from Sir Arthur Conan Doyle's super sleuth, SHERLOC has a magnifying glass. “Poor SHERLOC will feel lonely if he's all alone on Mars.”. Well fear not! **SHERLOC has a colour camera friend named WATSON, who will assist him in his search for Martian life!**

PIXL - The Planetary Instrument for X-ray Lithochemistry (wow, that is quite a mouthful!) may not be named after a super sleuth, but that does not mean that it is any worse than Mr. Holmes in its power of deduction!

With the power of an x-ray spectrometer, PIXL is much more flexible than the world's only consulting detective. PIXL has been fitted with several minuscule motors on its mechanical arms, that allow it to beam its x-rays anywhere it needs to. That x-ray beam is X-tremely (get it? X-ray, X-tremely?) powerful, able to focus on rocks as tiny as a grain of salt! "Take that SHERLOC's magnifying glass, I don't need one", says PIXL.

While PIXL's competitive spirit may tell you otherwise, it actually has its goals aligned with SHERLOC's! **It identifies chemical signatures in rocks, to look for signs of microbial life, and while microbes may be hard to spot, PIXL has got you covered!** Not only can it detect trace amounts of chemicals, even if they are just a few parts per million, but it can also detect the exact minuscule part of the rock where that chemical is!



While that is most impressive, prepare to have your minds blown, with the story of its name... The legend goes that its named PIXL after a pixel, the smallest part of any picture, honouring PIXL's camera. Even better, the first use of the word pixel was in research papers by Frederic C. Billingsley, who worked at the Jet Propulsion Laboratory, which is where the Perseverance mission is being managed from!

SuperCam

Is it a bird? Is it a plane? It is neither, it's SuperCam! SuperCam may seem like a very generic and unimaginative name to most of you, but what else do you call something as powerful as the Man of Steel himself? It is tasked with figuring out the atomic, molecular, and elemental structure of different types of rocks and soils on Mars.

What is so super about it? Well, it can correctly identify chemical and mineral "recipes" of rocks and soil from up to 20 feet away! Imagine what that would do to your chemistry test scores if you could revise by pointing a SuperCam at something and getting its chemical formula in an instant! Pure bliss!

What's more, SuperCam has its own version of Superman's heat vision! Its laser, that works together with several cameras and spectrometers can clear away dust from where its pointing, to give it a clear view of its target! It is also working very hard at trying to figure out whether or not we can live on Mars!

It also examines if any of the elements it scans are extremely harmful to human life and is analysing Mars's atmosphere for all the data it can possibly get. I'm no expert, but I'd say vacations to Mars are the next big thing!

All this analysis that these, and many more super gadgets will conduct will be very in depth (and not just because it's in a crater!). Perseverance is set to be analysing the Jezero Crater-its landing area-for the next mars year. That's two whole Earth years!

Why is it important?

Now comes the big question! "All of this is great.", you say, "but why is the world spending money on sending robots to Mars, when they should be helping the people of Earth first?". Well, there are a host of reasons why humanity explores space, and Mars in particular.

Firstly, exploring space is just like studying history. We can learn so much from our history, and similarly, space can teach us a lot too. For example, studies have shown that mars used to be some sort of thriving planet, but something has changed it into the wasteland we know today. What did this? Could it happen to us? Can we prevent it?

Secondly, resources. As far as we know-and to the disappointment of several people- there is no other life in the universe. This means that we have an abundance of resources just waiting to be used. Apart from the iridium that asteroids have brought to Earth, there is so much that we can get by mining asteroids in space itself!

James Cameron's magnum opus Avatar shows us how useful it could be to mine resources from space, and while that movie doesn't end well for the humans, that is for the sole reason that they disturbed another civilization, and as I said before, that is impossible in our day and age. Nevertheless, It shows us the possibilities that

space mining could have for us!

Lastly, and this will clash with my second point, aliens! While aliens in science fiction are usually “the heartless villains that come to attack humans until a group of daring humans go as humanity's last hope, and end up defeating the invaders”, aliens could actually help us! If we manage to communicate with aliens, we could exchange priceless knowledge, and become mutually beneficial to each other.

Imagine, two different countries that meet for the first time, and end up helping each other, we could do the same thing with Extra-terrestrials, and maybe, one day we will have a Galactic Senate, just in Star Wars *hopeful sigh*.

Why is Perseverance important?

Now that I have talked about the importance of space travel in general, and made you marvel at its cool features, we must answer the question - why is Perseverance important?

Well, technology is always improving, and the better the technology, the higher chance we have of actually finding out the truth about life on Mars! While this doesn't sound nearly as important as other things in life, trust me, it is. **One of the most important things that we are trying to do right now, is send humans to Mars, and every unmanned mission we send to mars gives us a better idea of whether or not we can.**

As I said before, Perseverance has done several things to try and see if humans could survive on Mars, and this could have many implications for the future. For example, Mars is a tad more than half of Earth's size, but its lack of huge oceans give it an almost equal land

area! Land on earth is very limited, so maybe we could start another human civilization on Mars, to decrease population density? You never know, the universe is expanding, and so is our technological capacity, so we may soon have houses on Mars!

Persevering with - the Conclusion

We have accomplished so much over the years, and this is no different. We are breaking boundaries we didn't even know existed, and every step we take in step is a giant leap for mankind. **The future is uncertain, but one thing is set in stone, and it is the same thing we are displaying during the coronavirus pandemic.** We have always adapted, so no matter what curveballs we have thrown at us, humanity will adapt!



A nod for the Quad: Inside the Quad country team up!

-by Agastya Rao, Grade X, SNS Gurugram



Alliances (military and non-military) have been a prominent means of a show of strength, for a need of defence/assistance or sometimes as a show of unity. This worked for the Allied forces in the First World War against the Central Powers, and in the Second World War (with Japan switching sides) against the Axis Powers.

The reason these 'alliances' work is because a group of countries/factions share a common enemy or enemies. Now whether or not many of these alliances made in the past worked or not is an entirely different story; what we are looking at today is a certain **modern-day alliance called the Quad**. As we know, when it comes to international affairs, the reality is like an iceberg – i.e., most of it remains hidden. This article shall attempt to make sense of the Quad.

The Quad and Its History

This Quadrilateral Security Dialogue/Alliance (“Quad”) began with a meeting called of 3 key Asian countries (India, Japan and Australia) with the United States of America. They were originally formed in 2007. The 4 countries came together to help the Indo-Pacific region and Indonesia rebuild after the devastating 2004 Tsunami. After a while, they went off the radar, but they have come back in a sort of a reboot.

The top leaders from all 4 countries met virtually for a major dialogue on the 12th of March. While the topics of the dialogue were said to be about controlling the growing climate issue, vaccines and the Covid-19 Pandemic and other economic discussions, there was a strategic theme that lay at the centre of it all: That was the growing power of China over the South China Sea and possible methods of prevention.

However, this theme is not an 'official' one but rather an underlying or subtle (or not- more on this later). The countries of the Quad recently promised to jointly produce 1 Billion doses of the Covid-19 Vaccine by 2022.

The 4 Country Leaders- PM Modi, President Biden (USA), PM Scott Morrison (Australia) and PM Yoshihide Suga (Japan) wrote a join Opinion in the Washington Post. about why they were formed, their aims and goals etc.

What is each country's stake in the story?

As I mentioned in my introduction, alliances are formed mainly because of a common enemy. In this case each stakeholder

the Quad Members) has a reason for being members of the quad. All 3 Asian countries have a major chunk of their international trade with China. Let's have a look at each country's relationship with China, and analyse if there is a possible threat towards them-

1. Japan:

Japan and China seem okay on the trade front; however, the disputes between the two countries are endless.

·The first one is the control of the Senkaku Islands. The Islands are controlled by Japan but are also being claimed by Taiwan and the usual suspect China. On the 29th of March as reported by WION News, 2 Chinese ships entered the territorial waters of Japan close to the Senkaku Islands.

·The second controversy is the release of radioactive water from the 2011 Nuclear Disaster plant the Fukushima Daichi Plant. China is vehemently against it and is urging Japan to reconsider. Whether this is a show of strength by China or an actual concern for them remains unclear, however Taiwan and other countries have requested Japan to reconsider stating a risk to the environment.

·Japan, like most countries in the region, is wary of China's incursions in the South China Sea.

2. Australia:

40% of Australia's trade is carried out with China. However, this budding relationship turned sour. Various trade disputes, trade price hikes etc have brought Chinese-Australian trade to a rough spot. Australia would probably also want to protect its interests in

the Pacific Ocean, considering the recent spike in Chinese military activity in the South China Sea and its neighbouring countries.

3. India:

India and China have had a rather rocky relationship - from the Sino-India war in 1962 and the various other incursions, skirmishes, to the Dalai Lama seeking refuge in India and countless other disputes.

·India is mainly aiming at protecting its interests in the Indian Ocean and not so much about protecting the South China Sea. 2020's Galwan Valley dispute being the highlight, when a fight broke out between Indian and Chinese Soldiers and resulted in many deaths. China is India's largest trading partner.

·China has also increased naval movement in the Indian Ocean, another cause of concern for the Indian Government.

4. United States of America:

The Glue that binds this informal alliance together, and a country notorious for sticking their nose in the business of almost each country to protect their interests (case in point, the Vietnam War, the mess in the Middle East). However, they also enjoy standing up for democracy and picking a fight with communist countries [Bay of Pigs (Cuba), The Cold War (Russia)] and of course, China.

The USA and China have always had a controversial relationship, and the United States' main goal is to curb Chinese control and influence in the South China Sea and to protect its allies in the South China Sea. Trump tried to trump (get it?) China by

announcing new tariffs for \$38 Billion Dollars, in their 'trade war' and the US backing democracy in Chinese Controlled Hong Kong. They have also backed Taiwan on the Taiwan Strait Controversy, and the Humanitarian crimes against the Uighur Muslims in Xinjiang.

What is China doing in the South China Sea?



China is great when it comes to map skills! They used a map made by a Geographer from China in the 1940s which had 9 dashes in a U shape formation drawn across the South China Sea. This map showed 90% of the entire sea as China's! Using this map as 'proof', they set sail, used their ships, intimidated other South Asian countries, fished in their waters, created man made naval island bases... you get the gist! The United Nations stated that there is no legal basis for China to claim this.

This angered all the countries in the South China Sea, and this worried the United States Government too. **The United States promptly moved an entire fleet of ships into the South China Sea for 'military exercises' [BTW that is American speak for monitoring China and showing who's boss].** There are certain Islands owned by countries which are within their 12 Nautical Mile limit. Whoever owns these Islands would practically get an extra 12 Nautical miles of all round fishing. China, decided to grab some of them.

·By the UN Convention Law of the Sea, any country can use all resources present within 12 Nautical miles of their territory. China clearly ignored that. This resulted in each country in the South China Sea having to be battle ready.

Has this Quad been, and Will it be effective?

The Quad recently conducted a Naval Exercise. The Secretary of Defence of the United States of America said that it was to ensure 'credible deterrence' of China, reported The Times of India. **This Naval Exercise was meant to show China that there were still countries that could stand up to its might.**

The Quad is not a concrete alliance or committee like NATO, but it may one day become a NATO for Asia. China was clearly affected by this newfound alliance to at least consider it a threat. The Chinese Government went as far as to even put out a statement via its Foreign Ministry saying that, "Small Cliques will destroy International Order (Said by Zhao Lijiang, the Foreign Ministry Spokesperson of China). **Though the Ministry refused to name the countries (It was strongly implied) and added that theses certain countries were trying to trump up the 'China Threat'.**

The Alliance is yet to prove its full mettle, and even though Joint Quad Naval Exercises have been carried out, the Quad still isn't powerful enough yet to hold China off. What they can do is give China a warning, that there are always going to be people to stand up to them!

The Future of the Quad

The Quad is still taking baby steps post its reboot and is still

getting a read of the terrain. Its agenda ahead is fairly clear-

1. Achieving the 1 Billion Dose Vaccine Production and Supply agreement- This will be key in helping the world fight the Pandemic. Even though major countries like the UK, the US, India and Russia have got vaccine doses and have begun the vaccination process of their citizens. NPR reported that 130 countries= 2.5 Billion People are yet to receive even a single dose of the Vaccine yet. This vaccine inequality does not bode well for the world.

2. Tackling Climate Change- One of the main agendas for the Quad from the very beginning had been has been tackling the big issue of Climate Change. Climate Change discussions took a backseat. Hopefully, the Quad can work in their own countries and with other countries to help stop Global Warming and improve the implementation of the Paris Climate Agreement.

One of the biggest culprits when it comes to polluting the earth happens to be the United States, so we hope the Quad's membership and President Biden's recent commitment to the Paris Climate Accord will rectify this.

3. (An Open Secret: Mostly Unofficial) Curbing China's power and aggression in the South China Sea- There have been talks, Joint Naval Exercises and all of this appears to be geared to helping the countries of the South China Sea and the Indo-Pacific region not be intimidated by China's incursions and to prevent China from continuing these incursions.

This task will not be an easy one, and the Quad have their work cut out for them, but I am quite sure that if they work together then over the next few years, they have a chance at succeeding. Last

month, Time magazine mentioned that the Quad was key to President Biden's policy in Asia, but that the alliance itself was lacking in logic and full of contradictions.

Conclusion

It is no NATO, it is not perfect, it hasn't achieved a lot in 2021, but this Quad Alliance shows great promise. It is not a solid alliance or organisation on paper, but its heart is in the right place. The Quad has the resources to tick all the boxes in their checklist.

Its first focus should be fulfilling their Vaccine commitment, and then they can tackle the China Issue and Climate Change step by step.

If this Quad rushes in to too many commitments at once, they will fizzle out like when water is poured on a matchstick. However, if they work together, show a united front and get these 3 things done it will not only make their countries and diplomacy better, but it will be better for the world as a whole.

Organisations like BRICS, the UNSC are considered to be 'Rubber Stamps' who never end up doing any work and are great on paper, but their paper is blank. A united front, teamwork, effort and honouring commitments will be critical to the Quad's success. Its not just the Indo- Pacific that needs the Quad to succeed—The WORLD needs the Quad to succeed.

Universal Health Coverage: Leaving no one behind

-by Maanya Malhotra, Grade X, SNS Gurugram



Healthcare is one of the most important, imperative and talked about topics across the globe, especially now since the world is going through a pandemic of gargantuan proportions. **Ever since we have invented modern medicine, the field of healthcare is going through a dynamic phase, globally, due to extensive research in said field, awareness regarding planning healthcare goals and the ongoing COVID-19 pandemic amongst several other reasons.** This developmental phase poses few very essential questions, "Is this new phase in healthcare development only for the elite? Do we have the resources to make such technologies available to everyone? If so, how and when do we get there?"

The answers to these questions do not exist in an absolute state. In some countries, the health industry is blossoming in the field of universal health coverage

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April, 2021

while others struggle to be able to manage in the most basic situations. Before we head towards the advancements made in the topic, here is a small introduction to some of the fundamentals:

1.WHO defines health as “ A state of complete physical, mental and social well being and not merely the absence of disease and infirmity.”

2.As per WHO, the goal of universal healthcare can only be achieved when “ all individuals and communities receive the health services that they need, without suffering financial hardship.”

3.90% of low income states have fewer than 10 doctors for every 10,000 people.

4.To help achieve UHC, WHO has identified two necessary components, as follows:

A.Effective service coverage for all individuals

B.Financial security to pursue those resources without fear of falling into deep debt or poverty.

No member state has till date been able to achieve the goal of UHC, though a few are doing much better than the majority. To get a better look at the progress of some of the member states, here is a country-wise illustration of the same:

1.England: UK has a free, publicly-funded healthcare system, called the **National Health System** or **NHS**. The NHS in England is overseen by Department of Health. NHS England is responsible for commissioning primary care services such as doctors, dentists, and pharmacists. Since 2013, Clinical Commissioning Groups have been responsible for commissioning secondary health care services in

local areas like: planned hospital care, rehabilitative Care,urgent and emergency care, most community health services and mental health and learning disability centres.

All services are publicly funded, and ultimately the government is accountable. **The UK ranked 16th on the 2018 Euro Health Consumer Index.** The NHS is a residence-based healthcare scheme rather than an insurance-based one and is funded mostly through direct taxation. **Most treatment via the NHS is free except for dental treatment and prescription charges.**

A shining example is the recent approval of the World's Most Expensive drug to prevent a rare genetic disorder which would be administered for free. There is an ongoing surge of Covid Cases in the UK. **The current vaccines being administered to certain people are Moderna, Oxford/AstraZeneca and Pfizer/BioNTech.**

2.United States of America: Unlike most developed countries, USA does not provide healthcare to the country's entire population. Most citizens are covered by a combination of private insurance and various federal/state programs.

Government funded programs like Medicaid provide healthcare coverage to some vulnerable population groups. The Children's Healthcare Insurance Program (CHIP) is regulated by the federal government but is administered at state level.

Only few children and in some cases pregnant women are eligible for this program. Health Maintenance Organisations(HMOs) are health networks that require the insured party to receive most or all of their healthcare from a single network provider.

The system in the US is the exact quite the opposite of that in England, as it is insurance based. In Covid times, vaccines being administered to the people are Pfizer/BioNTech and Moderna.

3.Canada: A Canadian resident or a permanent resident can apply for health insurance, with which they do not need to pay for most health-care systems. **Each province has their own health insurance plan. All provinces provide free emergency medical services without a government health card.**

However, there can be certain restrictions for immigrants. Canada's universal health care system, Medicare, is publicly funded and is a source of national pride. To be able to scale Medicare to its true potential, action on social determinants of health and reconciliation with indigenous people must occur in parallel with reform.

A report from 2018 states, "Without bold political vision and courage to strengthen and expand the country's health system, the Canadian system of universal healthcare is at risk of becoming outdated." In light of the COVID19 pandemic, Canada is administering the following vaccines to its people: Moderna, Pfizer/BioNTech, AstraZeneca and Janssen.

4.China: Despite China's investment in strengthening its primary healthcare system, **widespread gaps in quality of healthcare still seem to exist.** This leads to suboptimal population health and a substantial economic impact. Lancet Journal states the following shortfalls in their system: **insufficient training and educational opportunities for the practitioners,** the fee-for-service model that incentivises unnecessary testing and treatments, the shortage of integration between clinical care and public health service as well as

between different healthcare sectors and insufficient continuity of care throughout the entire health care system. This report also states that China requires proper measurement of performance and accountability in its primary health care system with comprehensive indicators, reliable data, and in-depth analysis, as well as financial and non financial incentive mechanisms.”

The primary health care system should increasingly be configured to be a learning platform for knowledge generation and utilisation, which is built on digital data and innovative technologies, particularly for staff training, decision, support and quality control”, says Lancet Journal.

5.India: India's healthcare system can be described as vast but disparities remain between rural and urban systems as well between government and private institutions. In all of India's five year plans, health has been a priority. However, **the poorest states, like Bihar, still don't have adequate healthcare infrastructures in place as compared to a prosperous state like Kerala.**

The condition of India's government hospitals, generally, save a few, is alarming. **India's private health institutions are expensive, and thus the poor often cannot avail the services these offer.** As a result, they must go to the government hospitals where there can be problems due to lack of resources vast number of patients, and limited awareness and accountability.

For COVID-19, India is offering Oxford/AstraZeneca Vaccine as well as Covaxin. Very recently, the Sputnik V vaccine was also approved in India.

The global aim of being able to achieve “Universal Health Coverage: Leaving no one behind” is one which is not only of utmost importance in current times, but also one which determines what kind of a world our future generations will live in, which makes it very important for all of humanity to be aware of it.

Modern Medicine can work miracles only if it is available to all those who need it. In our dynamic world, it remains the responsibility of those in power to be able to help those without. Promoting healthcare for all, is one step taken towards a healthier world.



HEALTH FOR ALL

UNIVERSAL HEALTH COVERAGE: EVERYONE, EVERYWHERE.

Gender Equality: One and all, or just one?

-by Anwita Ganesh, Grade X, SNS Gurugram



Today in India, most people are aware of three basic genders. Gay, Lesbian and Hetrosexuals. However, most urban Indians are unaware of the many unique genders that exist in our world that we are unaware of.

In Africa, more than 40+ genders are legally recognized and in many other countries like Iraq and Pakistan, only 5 genders are legally recognized and even those are looked down and frowned upon. The extent we humans have reached to exclude others who are more different and unique than us is enormous.

Abuses and assaults take place only and only because a person's liking is different than everyone else's. Is it truly so bad to like anyone we want to? Bad enough to be ridiculed about it in our society?

One such discrimination was portrayed in Gwinette county public school, where Franklin.V was abused and harassed simply because he was Gay. Franklin.V was very scared to report this crime and did not have the courage to do so until he was 17.

When the crime was reported, the teachers and professors who were involved in this crime or were aware about the crime yet did not report it, were all faced with consequences of their respective actions.

It is very disheartening for many people in the world to see that the public and society takes such a long time to realise that everyone is equals and should be treated as equals. Laws against gender discrimination only started in 1963. However, these laws kept getting revoked and then brought back therefore, there was major instability in the legislation of many countries in terms of Gender Inequality.

In India, getting married and being a couple with the same sex was illegal before 6th September 2018. This law revoked article 377 that dated back to 1861 that stated that being with the same sex as a person is unnatural and is out of order of nature. If anyone was found being together with the same sex, then it was a punishable offence by law and could have consequences upto life sentences.

However, now if any of these terms are said, it is considered as a punishable offence all over India. In the United States of America, in the 1940s and 1960s, if anyone believed that the LGBTQ community was to be accepted and be made legal, they were immediately fired.

A movement called, "The Lavender Scare " was set out, the

people who supported this protest believed that anyone a part of the LGBTQ+ community should be removed from all social services positions and even federal government positions. 1947 is usually marked as the year of the Lavender Scare where communists and people part of the LGBTQ+ were fired from government jobs.

This ultimately resulted in many people with government jobs resigning and being fired and this protest till 1955 when finally the protest stopped and was gotten under control.

In the mid 20th century, the United States was partnered up with Russians when the cold war had struck. Republican Senator Joseph McCarthy stoked the "second red scare" which was basically like the second wave of the Lavender Scare in 1955. This "Second Red Scare" was also known as McCarthyism.

The people who had believed in McCarthyism believed that people part of the LGBTQ+ community are people that cause harm to society and are dangerous to society. Now suddenly, most people in the U.S had fear of the LGBTQ+ instilled in them.

Senator McCarthy gave a rather infamous speech of his in 1950 where he stated that the LGBTQ+ is a community that should be excluded from all society and should be treated as "aliens. And surprisingly, people were actually influenced by his speech and the government had fired 91 gay professionals a week later.

Being a part of the LGBTQ+ was only legalized in a few parts of the USA since 1962. It has been legalized throughout the US since 2003. Inhumanity has reached to such an extent that even men and women are not treated as equals. In many workplaces till date women and men are not paid equally because people still believe

that men are superior. They may not show it but they do point it out indirectly by their actions. **However, there are still some people out there who believe that both men and women should be paid equally for example Benedict Cumberbatch.**

He is a man who is not willing to work in any movies that do not pay women counterparts as much as men are paid. It has taken us humans so long to realise that humans should be treated as humans and that we are all equals.

Yet, the struggle for acceptance of the LGBTQ+ still continues in many countries that are yet to legalize being whatever gender anyone wants to be. It is high time that we realise what has been happening right in front of our eyes. It is time we realise that it is okay to be whoever one wants to be and be free as who one is.

All a person on this Earth really wants is acceptance and equality. Even though the LGBTQ+ has been legalized, we still hold stereotypes against them and believe that it is against nature's will to actually be a person who is not necessarily the opposite sex. We should learn to be who we are and accept ourselves as who we are, only when we do that is when others around us will accept us.



Quality Education

-by Arunima Singh, Grade X, SNS Gurugram



Quality Education is vital for the development of a growing society and is also the focus of the UN's fourth Sustainable Development Goal. This Goal focuses on ensuring inclusive and equitable quality education and promote lifelong learning and supply opportunities for all.

Quality education can be attained by changing methods, enhancing technology, and most importantly having an open and inclusive approach.

For the UN, some of the targets for SDG's 4th Goal include ensuring that children have access to pre-primary, primary and secondary education. Also, to provide vocational streams, higher education options which include college. But quality education is more than education to just be accessible it also must add value to the lives

of students and help them create a sustainable lifestyle.

Quality Education will help create skills especially technical and vocational skills. The benefit of having proper and quality education to children is learning quality life skills that will help in life-long learning and growing. This will ensure development of the generation, increase in the productivity and result to generate a higher yield in return. Quality Education helps students comprehend the knowledge they have and apply it in everyday life. Children not only personally benefit from receiving an education when it comes to income, career advancement, skill development, and employment opportunities, but your society and community receive benefits of education as

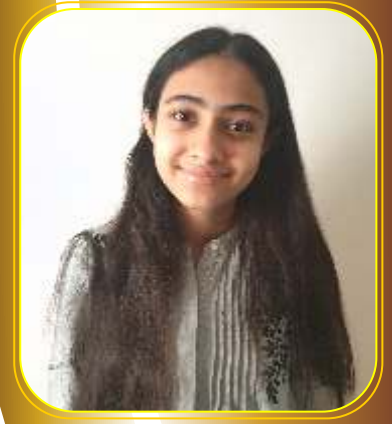
Education is a fundamental human right. However, there are 263 million children and youth round the world who are kept out of the classroom. Many of them are excluded because of discrimination, including over 130 million girls excluded because of gender.

Environment is crucial to have quality education. This means building and upgrading schools that are child-friendly, disability- and gender-sensitive, and provide safe, nonviolent, and inclusive spaces for students to learn.

Quality Education also requires qualified teachers, one of the UN's other goals based on education is to increase the population of qualified teachers, especially in the least developed countries and small island states, all around the world. Achieving inclusive and quality education for all reaffirms the belief that education is one of the most powerful and proven vehicles for sustainable development. It will help in building the society and help education systems to grow.

Sustainable Communities

-by Mehar Gaba, Grade X, SNS Gurugram



The term "sustainable communities" has various definitions, but in essence refers to communities planned, built, or modified to promote sustainable living. Sustainable communities focus on environmental and economic sustainability, urban infrastructure, social equity, and the functioning of the municipal government.

Sustainable development is also a strategy by which communities seek economic development approaches that also benefit the local environment and quality of life. Sustainable living communities are also under the sustainable development goals of the United Nations Development Program (UNDP)

Many different things lead to a city being sustainable, such as

1. Access to Public resources-

which ensures guaranteed access to quality education, safe health centres, easy to access public transportation, garbage collection services, safety and good air quality, among other modern living requirements. The well-being of residents is critical for sustainable communities.

2. Favouring local and ethical consumption-

Giving rise to local firms not only increases job opportunities in the area but also reduces carbon emissions drastically.

3. Reducing CO2 emissions-

The reduction of CO2 and other poisonous gases harmful to the ozone layer is perhaps the most important measure of a city's environmental commitment. Lowering CO2 levels can be achieved through the long-term shift towards using renewable energies.

4. Urban Renewal actions-

They help preserve the cultural heritage and identity of a city through renovation and restoration. For example, in Melbourne, there are rebates designed to incentivise property owners to adopt sustainable practices resulting in the efficient use of energy and water whilst reducing their waste to a minimum.

5. Reduce, reuse and recycle-

Managers of a sustainable city must raise awareness about the importance of recycling and responsible consumption, and

create an infrastructure that allows for minimal waste. San Francisco has implemented an 11-year-old zero waste program, which now sees 80% of all trash diverted from landfills. By 2020, the city hopes to bring that up to 100%.

Lots of cities around the world have achieved being self-sustainable. Here are some examples-

-Reykjavik, Iceland

The population is one of the main factors that contribute towards a greener space, with only 126,100 people, allowing adaptive changes to be made regularly. By 2040, Reykjavik plans on eliminating their production of greenhouse gas emissions by not only promoting walking and cycling, but also the use of public transport.

-Helsinki, Finland

One of the biggest contributors to Helsinki's economy is tourism, which has led to an increase in eco-friendly accommodation.

-Cape Town, South Africa

Cape Town, in particular, has been performing exceptionally well from an eco-friendly perspective. They began using wind farms for energy way back in 2008. Because of this, the city has now set an aim to get 10% of its energy from renewable sources by 2020, which is becoming more realistic as technology advances. As well as this, many people have started to grow their own vegetables and make use of solar panels.

-Vancouver, Canada

The captivating city launched the Greenest City initiative, which has set realistic goals that can be achieved in the near future. Out of all major cities located in North America, Vancouver produces the lowest greenhouse gas emissions, which highlights the efforts put in place by the local authority to combat the environmental impact the city could potentially have.

There is an abundance of evidence to show that Vancouver is making strides towards creating a more sustainable city for its residents. **For example, the residents have found a 23% increase in green jobs and a 26% increase in local food jobs since 2013. As well as this, a further 23% of Canada's CleanTech companies are located in the capital,** whether this is through digital contracts or by implementing a cycle-to-work scheme.

-San Francisco, California

San Francisco is the sixth most eco-friendly city in the world — which could come as a shock as the population is around 860,000. But, innovative solutions have led to a more sustainable lifestyle for the residents of this iconic setting, maintaining that picture-perfect reputation. With immense knowledge on waste management, San Fran currently diverts 80% of its waste away from landfills and plans to increase this number to 100% by 2020.

-Portland, Oregon

When it comes to waste in the city, Portland produces 2,434,840 tonnes and recovers 1,235,924 tonnes of it, astonishing results for a major city. As well as the above, the city uses 33% of

renewable energy — the national average is 13% — and like San Francisco, it has banned plastic bags.

-Berlin, Germany

After World War I, residents became extremely self-sufficient and valued their green spaces much more than they ever did, learning to grow their own foods — which is a trend that has been passed down through the generations.

With the rise in electric vehicles, Berlin has installed more than 400 charging points across the city and has encouraged citizens to think about changing vehicle type. Not only this, but residents aren't seeing the need for personal cars and are opting to share with one another in a bid to save the planet.

-Stockholm, Sweden

The major city has an aim to remove the use of fossil fuels by 2040 and is doing so by implementing new policies that encourage a greener society — with investment help from the European Union to become smarter. On top of this, bio-fuel is becoming more popular and is generated from sewage waste, powering vehicles around the city.

-Amsterdam, Netherlands

To become more sustainable and remove the negative effects of climate change, the city was one of the first to outline sustainability measures — with an aim to achieve results by 2020.

-Copenhagen, Denmark

Eco incentives are at the forefront of Copenhagen's priority list. **Due to continued investment into green alternatives, Copenhagen has reached number one on the list of most eco-friendly cities in the world.**

The city offers a high quality of life for its residents and has an ambitious goal to become even more eco-friendly. The capital is set to become the first CO2-neutral city by 2025 too. More people enjoy cycling than using a vehicle to get around, with only 29% of households owning a car, and the city has introduced even more cycle lanes.

A sustainable community is one that is consistent with all of these dimensions of sustainability. A range of indicators suggest that there is a growing gap between human consumption of resources and Earth's capacity to supply those resources and reabsorb resulting wastes.

We all must continue or start working towards sustainable and ecological cities and communities. Each of us have very small roles to play, however, these small roles will bring a big and immensely needed change in our world.

Suez Canal Blockade

-by Jeiya Khurana, Grade XII, SNS Gurugram



The importance of trade in the modern economic system cannot be understated. Maritime transport has enabled global trade historically and continues to be the backbone of international trade. **80% of the world trade by volume and 70% of global trade by value is carried out by sea.** Therefore, it is an inexorable truth that a blockage in sea routes has dramatic impacts on the global economy just as the recent Suez Blockade has had.

Background

A human-made waterway that cuts north-south across the Isthmus of Suez in Egypt, the Suez Canal is the shortest maritime route to Asia from Europe. **The artificial sea-level waterway connecting the Mediterranean Sea and the Red Sea was built in the mid- 19th century by the French and made functional in 1869.**

The Suez Canal provided an alternative to navigating around the Cape of Good hope in Africa, thus cutting distances by up to 7000 kilometers.

It was nationalized by Egypt in 1956 which subsequently led to the Suez Crisis (1956) which consisted of Britain, France and Israel invading Egypt to protect their corporate interests.

Significance of Suez Canal

The Suez Canal is the lifeline of trade between the East and the West. It contributed to 2% of Egypt's GDP (Gross Domestic Product) before the coronavirus pandemic. With about one million barrels of oil, 8% of liquified natural gas and carrying 12% of global trade by volume, it is one of the most important sea routes in the world.

Moreover, it is one of the key maritime choke-points (strategic, narrow passages that connect two larger areas to one another) along with the Panama Canal, Volga Don and the Grand canal (China).

A container ship operated by a Taiwanese transport company, named Ever Given blocked the Suez Canal entrance between March 23-29. It ran aground and became lodged sideways across the waterway due to high tides and winds. Later, manual or technical error was also investigated as a cause for the blockage.

The ship was described as a 'beached whale' by the salvaging company in charge of getting the ship afloat.

Impact of the Suez Blockade

The Suez blockade resulted in a mounting pressure on the global trade which was already experiencing strain due to the effects of the Coronavirus Pandemic.

The Suez Canal Authority (SCA) chairman said a loss of \$14-\$15 million loss was being incurred on the Canal's revenue for each day of the blockage.

According to data from Lloyd's list, the Ever Given was holding up an estimated of 9.6 billion of trade along the canal each day while the German insurer Allianz commented that the blockage could reduce the annual trade growth by 0.2 to 0.4 percentage points.

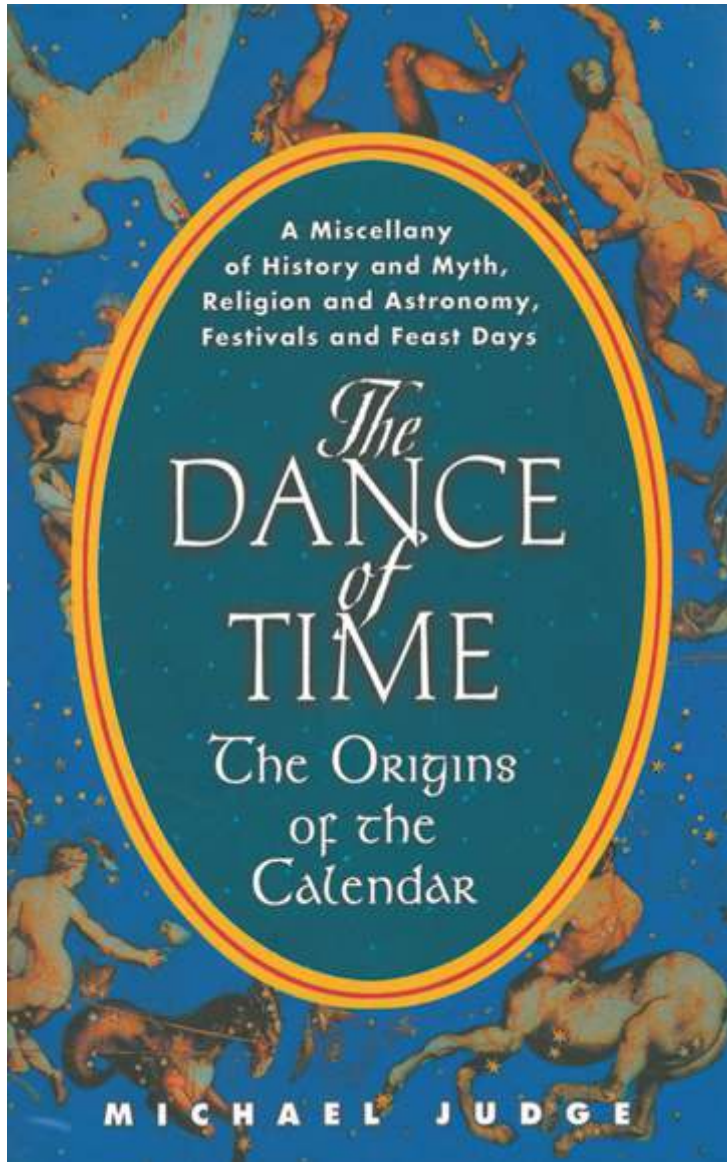
It resulted in a supply chain setback which inadvertently led to rise in crude oil prices. Vessels rerouted to avoid the Suez Canal were forced to complete their journeys by going around the Cape of Good Hope in Africa, which added about 8 days to their total journeys.

Conclusion

Acknowledging the fact that the blocking of the Suez Canal by the ship, Ever Given hasn't been the first time the canal was blocked. Having been blocked five times since the opening of the canal in 1869, attributable mostly to geopolitical tensions, it will be prudent to review protocols related to the operation of the canal to prevent further blockages. This will not only stave off fiscal challenges but also reduce possibilities of supply chain disruptions which have a noticeably negative impact on global trade.

Book Review: *The dance of time*

-by Tamanna Chandna, Grade X, SNS Gurugram



Our calendar—the one we rely on to tell us what days to work, when to celebrate a birthday, and when to get busy like a bee to prepare for the holidays—did not always exist in its current form. **This book by Michael Judge offers the fascinating history of how the calendar has evolved.**

It is surely a charming book, looking at the many festivals of the west and their origins. It isn't too lengthy and is quite factual. There are two parts to it, **the first one being: the tale of years and the second one: Heavens round**. The second part has a bunch of chapters under the four main seasons talking about the various events that occur during them.

It can provide the reader an interesting browse, but certainly, it is not in any sense a scholarly study. **According to me, perhaps the writer's style is a bit too flowery in some places.**

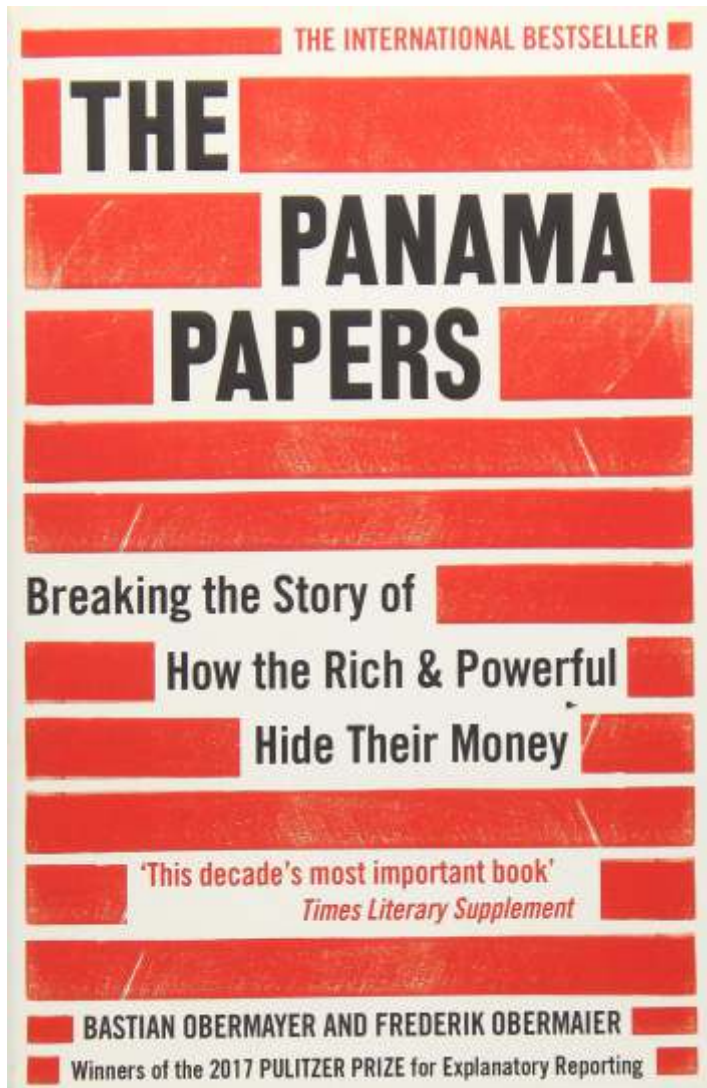
To be honest, I feel like this book is more about learning than it is about reading a story; **Mr. Judge takes you on a year-long tour of astronomical and religious events and occasions, so it is dense with facts**. Learning the origins and evolutions of these festivals or events is rather fascinating as well.

The book has appropriate pictures related to the text after every few pages, which gives some visual idea of what has been written. **If you are curious about calendars and the origin of time, this is the perfect book for your interest!**

Personally, I love the title of the book; 'the dance of time', because it talks about how reading time has evolved over the years. It is a good alliteration that simply makes the book title interesting in itself. **It is definitely worth reading. It is an easy and enjoyable read. Well worth the limited time it takes to read.**

Book Review: *The Panama Papers*

-by Jiya Gaur, Grade X, SNS Gurugram



Penned By Frederik Obermaier and Bastian Obermayer in 2016, The Panama Papers uncovers the dark veil of the complex and intricate networks behind offshore finance and the way it functions.

To brief the reader, the Panama papers were the documents from the database of the Panama-based law firm Mossack Fonseca that was made public in 2016. This is

considered to be one of the greatest leaks of confidential papers in history. The papers revealed how the firm had assisted several companies and individuals from more than 200 countries in releasing their money in offshore accounts, tax havens and shell companies.

It exposed the way members of the superrich used tax havens to obscure their wealth, fled public inspections and avoided paying taxes. Furthermore, the papers uncovered the fact that the use of offshore accounts by probable criminals to secure illicit earnings and those who wished to escape any form of penalty.

The tales of hidden wealth in Panama caused distress in Iceland and eventually resulted in the resignation of its Prime minister, the first major casualty of the Panama papers. Vladimir Putin, the president of Russia criticized the questions about his close friend, who was connected to offshore companies with cash exceeding millions.

The former prime minister of the United Kingdom, David Cameron was also compelled to explain his family's past and offshore equities. In China, the authorities made the decision to simply censor the term "Panama Papers" within hours of the broadcasting.

Interestingly, the name "Panama Papers" was inspired by the "Pentagon Papers", the publication of the US Ministry of Defence's confidential papers in 1971. The rather surprising aspect of what is the most ambitious investigative project of all time is that it began with a simple email asking the question "Interested in data?".

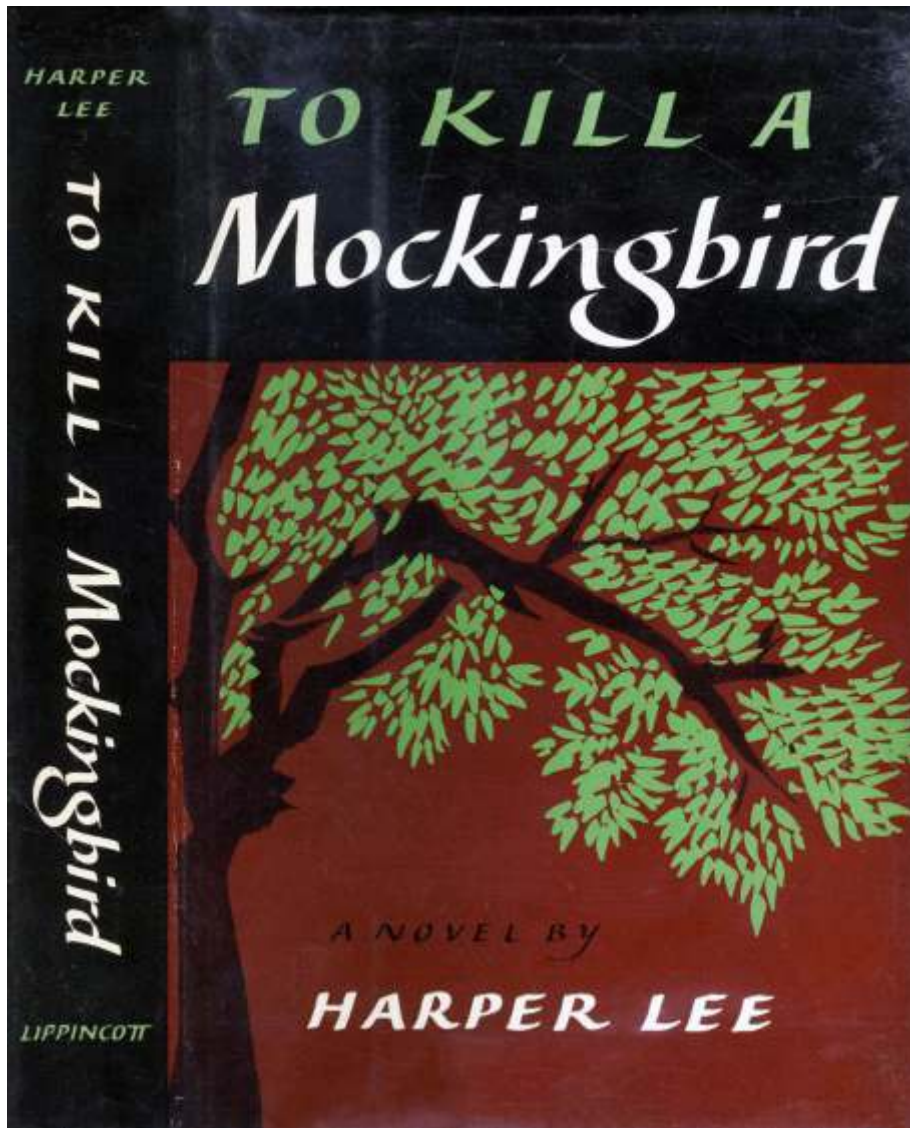
A user with unrestricted access to Mossack Fonesca's computers withdrew a couple million documents inclusive of

emails, bank statements and passport scans. The data was sent through email to the German investigative journalists who were with the Munich-based newspaper *Süddeutsche Zeitung*. It took 11.5 million documents, packed with a multitude of stories from across the world and a highly specialised software to reveal the hidden world of connections, greed, government corporations, criminals and a corrupt system.

The book has been written in a collaborative, precise and concise manner turning the biggest leak in the history of data journalism into a crisp read. The content of the book is factually complex and slightly repetitive at times. While the authors have attempted to make the information comprehensible, it would have been a lot more coherent if it provided a glossary of certain terms, a map to assist the various geographical locations mentioned in the book and subsidiary information. **Regardless of its loopholes, it was a gripping, relevant and stimulative read.**

Book Review: *To Kill a Mockingbird*

-by Naisha Arora, Grade XI, SNS Gurugram



"Shoot all the bluejays you want, if you can hit 'em but remember, it's a sin to kill a mockingbird"

This book portrays the advice of a lawyer to his children as he defends the real mockingbird of this classic novel- a black man charged with the rape of a white girl. Using a mockingbird as symbolism, Harper Lee conveys the peaceful beauty of the black race, dispelling the then – prevalent popular racist notions.

Set in the small town of Maycomb, Alabama during the great depression, the book follows the journey of young Jean Louise 'Scout' Finch, as she grows up in a town imbued with racism. It is her account, many years later, of a reflection on one of the most disturbing and thought-provoking cases her father has ever fought.

Maycomb, like any other small town, is one divided into families, who have lived on the town land for many generations. It is neither agriculturally nor industrially important but is a small unit in itself, complete with its own educational, religious and judicial systems. It is these systems which are directly affected by the prejudice, violence and hypocrisy of the town.

The book starts off with 6-year-old Scout and her 10-year-old brother Jem, as they cite age old local myths and get up to shenanigans only kids can cook up. Their story begins with befriending Dill Harris, a youngster who spends every summer with his aunt in Maycomb and his plans to draw out a reclusive member of their county Arthur 'Boo' Radley.

This is their biggest mystery till date, whether the Radley son is alive and if so, why he never steps out of his house. Their greatest source of amusement is summer when the eccentric Dill comes to visit, his head teeming with new plans to draw Boo Radley out of the house.

But slowly, this peace transforms into chaos and confusion as their father takes up the case of Tom Robinson, a black man charged with the rape of Mayella Ewell, a daughter of one of the oldest families of Maycomb.

In a community such as Maycomb, where people are as

closely knit as the fibers of a cloth and where each person knows the other, people talk, gossip and influence their children based on their opinions.

This is one of the main concerns faced by Scout as she is mocked and ridiculed by her peers solely because of her father doing his duty. **Atticus Finch is an intelligent, intrinsically courteous and kind widower who always has a few words of wisdom to help keep his children safe, wise and out of trouble.**

He comforts his daughter when other children demean her father and motivates his son to persevere in spite of the saddening and unfair racial discrimination.

This classic tells us a story based off heavy themes of rape and racism in a small town through the fresh, innocent eyes of an incredibly intelligent 8-year-old who views everything with the innate curiosity, vivacity and exuberance of a young child. Wonderfully written and narrated, it informs us of the horrors and injustices of the apartheid system in America and how it affected even the smallest and most insignificant of towns.

Let's consider the recent George Floyd case in tandem with the main themes of this book. If the advice given to Scout and Jem was what was taught to the police officers involved, it could potentially have saved a man's life.

Atticus Finch is my personal favorite throughout the book, being the most consistent and steady character, passing on his time-tested wisdom to his children and quelling their curiosity not with a 'hush now, you're too young' but with knowledge. I'd recommend this book to everyone.

Movie Review: *The dance of time*

-by Vyoma Ial, Grade X, SNS Gurugram



Released in 2021, this movie casts Lily James, Carey Mulligan and Ralph Fiennes in an emotional and heartfelt collaboration that teaches us how the past directly affects our future.

In the year 1939, America is right at the brink of war and is recruiting men for the fighting. Edith Pretty, a widow with a 6 year old son, is planning to excavate some strange hills on a piece of her vast land. Being rather wealthy, she employs Basil Brown, an uneducated but extremely experienced excavator who earlier used to work for the local museum.

After many obstacles, Brown discovers that underneath the big hills is a ship, which was actually a burial site from ancient times. The word of discovery reaches the

local museum and the British Museum and the site is taken over by the government. **Striving for recognition and fear of being overlooked, Basil struggles with the decisions of staying at the excavation site while Edith struggles with medical problems and starts to meet her fate, they both try to complete the dig, and recover the beauties of history.**

Ralph Fiennes, also in *Schindler's List*, gives us a convincing and raw experience while Carey Mulligan and Lily James's grace completes the movie.

Including topics like LGBTQ+ acceptance and discovering fulfillment, **'The Dig' really touches hearts and teaches us the difficulties of excavation and challenges of living in a vulnerable time at the brink of war.**

I would recommend everyone to watch this with their families.



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