

The
CANON

2025

Issue 4

Welcome Address

Dear Parents,

We understand that selecting the best educational path for your child is a significant decision that involves careful consideration. Your trust in us throughout this pivotal journey is greatly appreciated.

Typically, schools rely on printed prospectuses to highlight their strengths. While these materials offer valuable insights, they may not always provide a complete picture of what truly sets a school apart - its students.

*To bridge this gap, we are delighted to introduce *The Canon*, an annual publication entirely crafted by our student academic societies. Inside its pages, you will discover a collection of articles and insights straight from the hearts and minds of our students. You'll be able to sense their passion, creativity, and unwavering dedication. These pages will introduce you to our students' diverse interests and aspirations, which greatly contribute to the vibrant fabric of life here at North London Collegiate School (Singapore).*

*Choosing the right school for your child should encompass more than just academic achievements; it should embrace an environment that nurtures personal growth, critical thinking, and character development. We hope that *The Canon* will offer you a glimpse into how we foster these essential qualities in our students.*

We are confident that you will share in our enthusiasm as you explore the exceptional opportunities that await your child at NLCS (Singapore). Please do not hesitate to reach out if you have any questions or require further information.

*Warm regards,
Paul Friend
Director*

Foreword

Dear Readers,

As we approach the end of the 2024-2025 academic year, I am delighted to present the fourth edition of 'The Canon', as this year's Academics Ambassador. The SEC (Societies Executive Committee) saw new structural amendments this year, now being comprised of the Academics, Welfare and Service ambassadors, together, we have propelled change in the landscape of societies in NLCS (Singapore). As the governing body over societies, we launched the very first Societies Week to have ever taken place at NLCS (Singapore), which entailed the relaunching of all existing societies and provided all students with an optimal opportunity to launch new societies. This week undoubtedly acted as a testament to the dedication of the student body, with a plethora of lunchtime activities and workshops being held and the week culminating on the final day with our hosting of our school's largest Societies Fair to date. The commitment of the students is all the more evident in this year's edition, including the finest works of academia from the most budding society members, spanning all across the entire Senior School.

Over the course of the SEC's administration this academic year, we have overseen the formation of fifteen new societies and the continuation of twenty-four existing societies, each society offering unparalleled opportunities for student enrichment, stretching far across the realms of academia, service, and clubs. My utmost gratitude goes to the unrelenting chairs, vice-chairs and members of all NLCS (Singapore) societies, and especially those included in this year's edition, without whom our beloved community would be wholly incomplete.

Freddie Robson (Head of Academic Societies)

As the Service Ambassador, it has been my honour and pleasure to support Service Societies this academic year. Through these societies, students not only are able to take on self-initiated leadership roles, but also explore and advocate for causes they believe in. I truly believe that it is through service that our school community unites, and the inclusion of articles from our service societies in the Canon serves as a testament to how service is embedded into the foundations of our school community.

A huge thank you to all of those who have contributed to this edition of the Canon, but also a wider thank you to all of the societies this year for contributing positively and enriching our school community.

Elsie Heining (Head of Service Societies)

Lastly, a note of gratitude is due to all of this year's clubs for their hard work and dedication in contributing towards the wider school community. True passion is something that is often overlooked when examining the achievements of students. However, it is only thanks to the efforts of those who go unrecognised - beyond the leaders of all societies, we would also like to acknowledge each student that signs up for all of the societies that NLCS (Singapore) has to offer. It is thanks to you that we are able to continue yielding such high quality in student-led work throughout the school. As the Welfare Ambassador of this academic year, I would like to emphasise that, beyond instilling a demanding work ethic, societies are one of the best ways to connect within our school community. We are able to transcend the borders between grades and it is only through these societies that NLCS (Singapore) can call itself a truly linked community, without walls to stop the curiosity of its students.

Yi Tung (Eva) Khoo (Head of Clubs)

With the help of the English Literature Society, the Editorial Arts Society, the Pulse Magazine Society, the Medical Society, the Number Theory Society, the Senior Athlete Coaching Programme and the Art for Action Service Society, The SEC has compiled a hand-picked collection of student-written works from this academic year, reflecting the dedication and passion with which societies have explored, investigated, and acted in order to bring you the most thought-provoking and intellectual written works of the Senior School.

The SEC

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Literature
Society

academic

Eyes closed

Emilia Heininger, G8

We solved all problems in the year 3000. No longer does poverty, disease and global warming plague our existence.

At this time the human race flourished with vehement elation - we as a people, were able to live without fear of the future. We could live every day to its full potential, basking in glory, radiant in the sun. We who once lived in fear of Mother Nature, now controlled her. We declared ourselves the dominant beings on Earth.

This era, we called, was The Age of Peace and Ideality. We lived in harmony, drunk on joy, high on life, on all the accomplishments- that We had achieved.

And then there was a sudden stop.

Soon true skin showed, and sickly blood was shorn. Only decades ago, world leaders declared that if we solved all the problems, humanity would finally be able to reach its full potential; achieving feats that were once impossible.

How wrong they were.

In hindsight, it's somewhat ironic; we were warned for centuries about the sadistic nature of humankind we never listened to, and ultimately - what once was described as the epitome of human existence, became the absolute worst of humanity.

To put this into perspective; this mantra became the global philosophy:

Fight!
 Fight!
 Fight!
 Our end is soon nigh
 in this godridden world.
 We have torn our Mother Nature's word.
 We are a sinful, hellish people
 Unsalvageable, untouchable, unreachable!
 And so with much glory, And much liberty

Will we avenge our forefathers
 Wrongly righted,
 Rightly wronged
 Kill, and cause pain
 To those who are different,
 To those who don't agree
 The prime of human nature
 Will be and become those
 Who kill!
 in ecstasy.

The result of this extremist philosophy was the near eradication of the human race. In the current day, this saying is denounced. We think of it as a gap in history some would rather forget.

Why did it happen?

Because humans were bored.

Bored of...?

Bored of Peace.

Now we live in silence as a result of this happening. Humanity collectively realised that communication between people, in any form, was the root cause of all problems.

If no one voiced their ideas, disagreements, religions, perspectives- no conflict would or could occur. If ideas were never raised in the first place, no one would be able to debate or fight, as there would be no absolute reason. People could live in harmony, each living and acting selfishly for themselves - progressing their own philosophies and ideas without the fear of being rebutted.

Thus, all communication between individuals was eradicated, in any form.

It's silent.
Quiet
Undisturbed

Each one of us sits stoic, unaffected. Our eyes closed, our minds open in this vast white space. We cannot do anything but exist. Each day thinking of what could have been, on what could be done. Each one of us upright, cross legged, and sat still. Each one with our eyes closed, thinking, waiting. Progressing human knowledge, progressing our philosophy, progressing our own minds.

We are no longer humans, just lifeless beings stuck in their heads. I never existed as a person, only as a collective of minds. No longer human, no longer feeling, no longer dreaming. Only living in peace.

Day and night, day and night, night and day, day and night. We think and think and think.
Eyes closed, sat still. Upright

But I move.
But I dream.
So I opened my eyes

-And screamed.

Eyes closed, eyes closed- eyes opened.

And they flashed with startled brilliance. I launched myself at them- howling cries of venomous ferocity; I cried and screamed, wreaking downright havoc on them, pushing, pulling, stampeding, killing. I marched with hell in my heart and heaven in my head. How loathe flowed out of me, and guilt crashed down on me - as I swung my fists round and round, cracking necks, crunching bone.

Till all the silence broke.

Till the screams started, till voices shook, till - finally minds were closed and hearts were opened. I stopped. Satisfied of the damage I had done, I crumpled down-hearing the sounds of people bleeding, talking and tending one another- wafting in and out of my ear. Thus, on that warm plaster floor, I breathed my last breath. And died.

Is the countdown of humanity ticking towards our end?

Muting Chen, G7

In the famous science fiction novel *The Three-Body Problem*, the protagonist experienced a strange symptom where there was always a countdown in front of his eyes, no matter where he looked. In the end, it is not clear what would happen when the countdown hit zero seconds. However, the protagonist himself was frightened that the countdown would end with a catastrophic event. Imagine if the whole of humankind was given a countdown to an unknown event, what would happen then, would that event lead to a utopian paradise? Or would it lead to humankind's end? These are burning questions that generations of philosophers have been trying to answer, since it is human nature for mankind to fear the unknown.

There is certainly a possibility that the future of humankind is dystopian. For example, the Fermi Paradox - the paradox of why there is no observed life in the universe from humankind's point of view - has been given a few explanations, one of which is the Dark Forest solution. Arising out of the second book of the famous series *The Three-Body Problem*, called *The Dark Forest*, though the solution predates the novel.

Imagine the universe is a dark forest, where humankind is a hunter, alone in the vast wood. In this case, the hunter would never let his existence be known, for fear of crossing paths with a greater hunter, and then his survival shall be threatened. Neither would he reveal himself to weaker hunters because they might suddenly have a surge of strength. This surge of strength in reality is called a technological explosion, where an intelligent life discovers or creates new technological tools in an extremely short amount of time. An example of this could be the Industrial Revolution in the case of mankind, where the first Industrial Revolution used water and steam to achieve mechanised production, under the time span of one century. When the Second Revolution used electric power to create mass production, under the span of fifty years. While the Third Revolution used information technology to almost completely automate production, in under thirty years.

According to the Dark Forest solution, any intelligent life will never try to communicate with another intelligent species. Even if that species is less technologically developed than itself, since a technological explosion could detonate at any given second. If the dark forest solution is the true solution to the Fermi Paradox, then humankind's countdown would almost certainly tick towards a dystopian future. Several searches for extraterrestrial intelligence - or in short SETI - have been carried out over the last few centuries, where CETI have been used for communication with extraterrestrial intelligence.

Two famous examples of a CETI attempt are the Voyager 1 and 2 spacecraft, which were sent on the mission by a government organisation known as NASA, since both of them carry a golden record with them. In the records are instructions of how to decipher them, and if the intelligent life that chanced upon it is intelligent enough to decode it, then they would receive greetings from 55 languages and the origin of the spacecraft, specifically a guide on how to find Earth. If the Dark Forest solution is correct then the most wise course of action for that intelligent life would be to destroy competition and wipe out humanity or keep quiet and not start an interstellar war. Depending on how technologically developed life really is, and if humankind is exceptionally unlucky, we could be crushed under another intelligent life form's feet, just like we would use our feet to crush an ant.

Another possibility where the future of humankind is dystopian, is the rise of artificial intelligence. Most types of artificial intelligence itself are harmless and could be wielded by mankind as a tool to benefit humanity. This type of AI is called artificial narrow intelligence, or in short ANI, which is a type of AI that could focus and excel at one task. For example, AlphaGo - an ANI that excels at playing the ancient game of go - became so good at the game that it won a game against Lee Sedol, who was commonly known as the best player in the world. Even though ANI was programmed by mankind, we still do not have a complete understanding about its core programming, it is all guess work.

However, some types of AI could become too powerful intellectually and wreak havoc against humankind. Even though this type of AI is completely hypothetical, it is extremely possible that mankind would invent an artificial general intelligence, AGI in short. Artificial general intelligence is a type of AI that could focus and could hypothetically excel at any task that an average human could master. This is the type of AI that philosophers and scientists have been fearing, starting from the day the first AI was invented. This is normal since, as I said earlier, it is human nature to have the fear of the unknown. This is because an AGI could excel at any task, even at the task of inventing new generations of artificial general intelligences, which could then create an insanely fast feedback system that could result in an omnipotent god in the box AI. Since this type of AI is completely programmed by other artificial intelligences, humanity would have no idea whatsoever about what is transferring between its core programming - we could not even fathom to guess.

An example of this type of AI could be a future prototype of ChatGPT, this AI has improved a lot considering the short time span that has lapsed for it to refine itself. However, ChatGPT would require a new system to refine itself if it were to achieve the state of an AGI, since it currently uses all the data stored on the internet to generate replies to conversations. Hence, it is subject to human errors and could generate false answers, which means that this AI does not excel at any tasks, instead it is only adequate enough.

Another artificial intelligence that is close enough to the hypothetical AGI model is known as the Thunderhead; this AI appears in the novel series called the Arc of a Scythe. In the series, the Thunderhead has consciousness and conscience, hence it focuses and excels at every task that used to be the tasks of humankind's governments. In addition, it created a new generation of artificial intelligence, known as the Cirri, since they believe that they are "above the cloud." Not only did the Thunderhead create new AIs, it also constantly tried to refine itself via learning just like a human, except it never has the urge to sleep or consume food. Even though the Thunderhead in the novel series was created to be humankind's servant and stayed that way throughout, in reality if an AGI was created, there would be a high chance that it would not remain our humble servant.

Of course the future is uncertain and hopefully humankind would find itself in a utopian paradise of a world instead of a world where artificial intelligences start struggling for power and other intelligent life forms start to scheme mankind's demise. Hopefully that is the case and there certainly are possibilities of the future where these catastrophic events would never happen. This is because there are far more than only one solution for the Fermi Paradox. Even though the Dark Forest solution is theoretically correct, that does not mean there is even any extraterrestrial intelligent life.

Another plausible solution to the Fermi Paradox is known as the Great Filter. Imagine every single intelligent civilisation has to go through a catastrophic event that threatens to wipe out their civilisation in order to colonise other habitable planets and terraform the ones that have a hostile environment. For example, the rise of artificial intelligence, a climate crisis, a global scale nuclear war or a lethal pandemic. If the Great Filter is the true solution for the Fermi Paradox, then there are two scenarios for humankind. Firstly, if the Great Filter is in our past, then that means mankind had somehow overcome the event and we are perhaps one of the first intelligent life forms that survived. If this is the case, then a utopian paradise is certainly waiting for humanity. Perhaps we could colonise the Moon, then Mars, then the solar system, and then eventually our whole Milky Way galaxy.

However the second is not as hopeful, since if the Great Filter is in our future, then the lack of intelligent life in our universe would mean the Great Filter is literally impossible to overcome. Even though this scenario appears hopeless and humankind would end up tearing itself into tiny little pieces, it is not devoid of hope. This is because, even though the universe is ancient, it is estimated that it has existed for more than 13 billion years, the early universe is a hostile environment that is not beneficial for any forms of life. Perhaps humankind has a head start out of all the civilizations, perhaps the Great Filter event would not be so "great" after all.

Even if the true solution to the Fermi Paradox is indeed the Dark Forest, it is unlikely that any intelligent life form has come across it yet. Since the observable universe has an estimated diameter of 93 billion light years, and both of the Voyager spacecrafts have only travelled more than 20 billion kilometres. The probability of the spacecraft being intercepted by another intelligent life form in the next century is close to zero. In addition, if a life form intercepts the space ship, then there is a chance that it is not even intelligent enough to decipher the instructions and access the information mankind have stored in the golden records.

Additionally, there would hopefully be no rise of artificial general intelligence. This is certainly possible, since current models of artificial intelligence are subject to human error, hence, the information they use could be biased and incorrect. Even though there are filters to clear out the incorrect information, that filter certainly is not infallible. For example, ChatGPT uses the data stored on the internet, which is certainly not somewhere where all the information is correct. In addition, it also uses a filter, however the filter is rudimentary and requires a lot of improvement to become a secure system. Therefore, if the programming systems of AI do not change, then it would stay subject to human error, which means that it would never ever be infallible and develop into an AGI.

Ultimately, if humanity is given a countdown, there are two equal possibilities - one leading to a utopian paradise, and the other leading to a dystopian future. If the future is dystopian, then the countdown could end with either another form of intelligent life discovering humankind, or an artificial general intelligence being created by mankind. If the future is utopian, then the countdown could end with humanity colonising the Moon, or humankind discovers a way to regulate AI significantly. For now the outlook of humankind's future is hopeful, but who knows? Perhaps every step mankind has ever taken and will take, will guide humanity to a perfect future: a utopia.

References

<https://science.nasa.gov/mission/voyager/where-are-voyager-1-and-voyager-2-now/>

Women of the Golden Age: Pioneering Adventures in Fiction and Reality

Dalia Raccah, G9

The Age of Exploration, otherwise known as the Age of Discovery, spanned between the 15th and 19th centuries. Driven by European ambitions to elongate trade routes, acquire wealth and gain colonial power, explorers such as Christopher Columbus and Ferdinand Magellan ventured into uncharted territories in hopes of spreading their nations' ideologies, securing valuable resources and forging new connections that would reshape global trade and geopolitics. The legacy that this era had on civilisations is everlasting, as it led to the spread of European influence across Africa, Asia and the Americas, leading to the globalisation of trade and the flourishing of scientific advancements due to improved navigation strategies and geographic knowledge. However, this era also brought colonialism, exploitation and cultural upheaval to indigenous populations.

By the 19th century, discovery had shifted from empire-building to scientific research, as explorers often embarked into remote regions of the world. Prestigious societies such as the Royal Geographic Society (RGS) and National Geographic Society (NGS) recognised the discipline of exploration as a male domain, causing the exclusion of women as members and the unrecognition of their contributions. Throughout this period, women were expected to adhere to domestic roles, focusing on marriage, family and social status, and the idea of a woman engaging in an exploration was seen as improper. Furthermore, the existing stereotype of women lacking the physical strength needed for long expeditions made it difficult for them to access funding and galvanise support.

Despite this, women still managed to connect with the world of exploration; some travelled with disguises, and some travelled as missionaries, artists or scientists. Women such as Mary Kingsley, Isabella Bird, Alexandra David-Néel and Nellie Bly defied societal norms in order to make revolutionary contributions to anthropology, science and discovery. Their stories, which are often overlooked by historical narratives, challenge the societal norm of exploration being a solely male pursuit.

Many female explorers embarked on different journeys throughout the Age of Exploration, all of which reshaped the domain of discovery. Mary Kingsley, a British explorer, writer and ethnographer, travelled across Western Africa alone to conduct extensive research into the different cultures and their rich natural history. Born in 1862, Kingsley travelled at a time when women rarely ventured into what was viewed as 'foreign land', resulting in a lack of support from her peers. However, her 1897 travelogue entitled 'Travels in West Africa' criticised European stereotypes of Africa, and ultimately shaped Western perceptions of African culture. Her dedication to her work led to great advancements in anthropology.

Born in 1831, Isabella Bird was a Victorian-era explorer who challenged societal expectations through her solitary expeditions across North America, the Middle East and Asia. Bird made significant strides for women in exploration as she was the first female member of the Royal Geographic Society, joining in 1892. She published her experiences among Native American communities and natural life in her 1879 travel memoir entitled 'A Lady's Life in the Rocky Mountains'.

French-Belgian explorer Alexandra David-Néel travelled extensively through Asia, publishing her findings in her travelogue entitled *My Journey to Lhasa* (1927). David-Néel's travels included a secret visit to Tibet at a time when no foreigners were allowed; her travelogue contains stories that detail her disguise as a Tibetan pilgrim. Her research contributed significantly to the Western understanding of Buddhism and Eastern cultures.

Inspired by Jules Verne's *Around the World in 80 Days*, journalist Elizabeth Jane Cochrane, writing under the pseudonym Nellie Bly, published her travelogue *Around the World in 72 Days*. Her groundbreaking voyage in 1889 pioneered investigative journalism and highlighted the capabilities of women in the media and in global exploration. Bly shattered gender expectations and proved that women could be adventurers after completing the voyage faster than Verne's fictional character Phileas Fogg.

All of these women faced unique challenges, including a lack of institutional support, social disapproval and physical dangers. Their findings were often dismissed or romanticised, instead of being taken seriously as scientific and historical contributions. However, female explorers were able to reshape the narrative of exploration, and prove to society that women could be daring, intelligent and resilient.

Written in 1887, H. Rider Haggard's *She: A History of Adventure* is a quintessential example of Victorian adventure literature, as it blends elements of fantasy, imperialism and gender politics. The novel follows two British men journeying into Africa who encounter Ayesha, an immortal and extremely powerful woman who rules a lost kingdom. Ayesha is often referred to as 'She-who-must-be-obeyed' due to her authoritative and intelligent nature, and she commands both reverence and fear from the people she rules as well as the male protagonists. Her supernatural power and striking beauty captivate those around her, yet her overarching dominance challenges the gender expectations of the time. Her portrayal reflects the Victorian anxieties about women who defied traditional domestic roles, illustrating female autonomy as dangerous yet alluring.

In addition, Nellie Bly's *Around the World in 72 Days* is a compelling example of how a real exploration could be transferred into an adventurous narrative. Inspired by Jules Verne's *Around the World in 80 Days*, Bly set out to beat the imagined record by travelling the globe in just 72 days. Whilst rooted in fact, her travelogue is woven with the excitement and urgency of a novel; an intentional stylistic choice which increased the accessibility of her novel. However, rather than being viewed as a geographic inquiry or proper act of journalism, Bly's work was seen as mere entertainment, illustrating the wider reluctance to give credit to women with serious contributions to exploration. Despite the systemic barriers, Bly's success was a testament against the limitations imposed upon women, highlighting that they could match, and surpass, the courage, stamina and resourcefulness of male explorers.

While nonfiction accounts including Bly's work were often softened for public consumption, fictional female explorers were viewed as anomalies, particularly as they threatened deviation from societal norms. Figures such as Ayesha in *She* were characterised as powerful but ultimately dangerous or tragic, reflecting fears of what

may happen when women gained independence or authority. Instead of being portrayed as ordinary or relatable, female fictional explorers were often villainised as unnatural and excessive, or idealised as exotic and pure, revealing the discomfort that Victorian society members had of women who transgressed gender boundaries. Nonetheless, literature began to shift over time, and authors began to gradually portray female adventurers with more depth and realism, aligning with the slow, but steady, progress made in society.

However, female explorers faced obstacles that went beyond harsh climates and difficult terrain. The rigid gender expectations of the 19th and 20th centuries dictated that women were to remain in the domestic sphere and focus on their familial role and propriety, rather than pursuing their own ambitions and interests. When women wanted to explore, they often had to travel in disguise, secure sponsorships by posing as males, and frame their adventures as an extension of religious or charitable work in order for it to be looked at seriously. Even when they succeeded, their discoveries were rewritten to conform to a more acceptable narrative; they were not described as pioneers, rather as "accidental adventurers" "curious ladies", unlike their male counterparts who were viewed as scientific minds.

Systemic gender biases not only affected society's perception of women, but also the preservation of their legacies. Despite these barriers, women such as Nellie Bly, Isabella Bird and Mary Kingsley laid a foundation for future generations, inspiring women to pursue a career in journalism, travel, science or anthropology. In the modern era, figures such as Jane Goodall continue this legacy by expanding the definition of exploration to include scientific observation and environmental research. Known for her groundbreaking research on wild chimpanzees, Goodall revolutionised primatology (the study of primates, such as apes and monkeys, and their complex behaviours) through her empathetic and ethical approach to her research, ultimately challenging the scientific norm that discourages emotional connection. Her revolutionary work is a demonstration of the capability of female adventurers, highlighting that they are not only able to participate in science, but also lead it.

Overall, recognising both fictional and real female explorers is crucial for understanding the history of exploration and the growing role of women within it. Whether it be navigating through dense jungles, or ruling fictional nations, these women challenge the systemic beliefs of what women can or cannot do, and their stories continue to mould cultural understandings of gender and ambition. The contributions made go far beyond just geographical discovery, they revolutionised what was possible for women, laying the foundation for generations of future female explorers. As readers continue to delve deeper into these narratives, the desire for a more inclusive and accurate portrayal of exploration grows, one that not only follows the routes of male adventurers, but also the silent yet daring expeditions of women whose stories have gone untold for too long.

The New Frontier: A Critical Look at Exploration Past and Present

Redefining Exploration in a Changing World

Tara GILBERT, G9

Exploration has always been framed as a noble pursuit, something that captures the human spirit, whether it's venturing into uncharted territories or diving into the depths of the human mind. At its core, exploration is about discovery—seeking out the unknown, challenging our limits, and understanding the world in new ways. But in today's rapidly changing world, the concept of exploration has evolved. It's no longer just about mapping distant lands or the great unknown. Exploration is layered with nuance, tied to the complexities of identity, technology, and societal structures.

Historically, exploration has been about discovering the geographical unknown: Christopher Columbus sailing across the Atlantic, Marco Polo's travels along the Silk Road, or Neil Armstrong's first steps on the moon. These landmark achievements are celebrated as monumental moments in history, representing human curiosity, ambition, and the quest for knowledge. In these instances, exploration was largely external—focused on new frontiers and physical spaces.

However, as our physical world has become more mapped, the definition of exploration has expanded. Today, we explore not just distant lands, but the realms of science, technology, philosophy, and, importantly, the self. Think of the vast, unexplored terrains of the human mind—the complexities of consciousness and the unfolding mysteries of our emotional and psychological landscapes. We explore in a more introspective way now, grappling with questions about identity, mental health, and what it means to exist in a world where the external frontiers may seem fully discovered, but the internal ones remain largely untouched.

One could argue that the most exciting and necessary forms of exploration today lie in these subtler, often overlooked spaces. Our modern explorers are not just scientists or astronauts—they are artists, philosophers, activists, and ordinary people struggling with

existential questions, often in search of a deeper understanding of themselves and the world around them. Today's exploration challenges traditional binaries: we explore the intersections of race, gender, and class; we confront the effects of technology on our lives and relationships; and we question our relationship with nature in the face of climate change. The world is no longer characterised by clear dichotomies, such as black and white, instead, it presents a complex and nuanced spectrum of grey, which we must strive to understand and interpret.

Exploration is also deeply political. The age of imperialist exploration, where powerful nations "discovered" and laid claim to foreign lands, has left a long-lasting legacy of colonialism, oppression, and exploitation. Modern exploration, while still about discovery, must also confront these legacies—acknowledging the histories of those who have been erased or marginalised in the pursuit of exploration. The nuance here is vital: exploration, in its current form, is no longer just about uncovering new land or resources, but understanding and addressing the historical and ongoing consequences of that discovery.

Furthermore, exploration has taken on a new urgency with the advancement of technology. Space exploration, which once seemed like the domain of science fiction, has now become a reality that promises to unlock new frontiers. But beyond the excitement of discovering new planets or the possibility of life beyond Earth, there are critical questions to consider: How do we use the knowledge we gain from exploring space? How does it impact our society, our environment, or our sense of purpose? Does the exploration of outer space lead us to better understand the inner space of our own planet, and ourselves?

But even as technology opens doors to new forms of exploration, it also brings its own set of challenges. The digital age has made it possible to explore realms we never could have imagined, from virtual realities to the depths of the internet. Yet this form of exploration, while exciting, comes with its own complexities. How much of our digital exploration is really discovery, and how much is manipulation or surveillance? In exploring these virtual spaces, what are we leaving behind in terms of privacy, ethics, and human connection?

One of the most interesting nuances of modern exploration is how it interacts with our sense of purpose. In past eras, explorers were often driven by a clear sense of mission: to discover, to conquer, to claim. Today, many feel a more internalised, almost existential pull to explore—an exploration of the self, a desire to find deeper meaning or connection in an increasingly complex world. In this age of information overload, where we can access knowledge instantly, the question of what we're truly seeking when we explore becomes more nuanced. Are we searching for answers, or simply for meaning? Are we trying to understand the world around us, or are we trying to understand ourselves within it?

Ultimately, exploration in its modern form is not just about reaching new places or discovering new things—it's about asking the right questions. It's about acknowledging the layers of complexity and nuance that shape our world, our minds, and our futures. It's about understanding that discovery isn't always about uncovering the unknown, but about peeling back the layers of what we already know, questioning what we've always assumed to be true, and pushing beyond our limitations.

In a world that often seems defined by what is known and familiar, the most important exploration may be the one that takes us inward, that forces us to confront our own biases, insecurities, and limitations. The nuanced form of exploration we need today is not just geographical, but intellectual, emotional, and social. As we continue to push the boundaries of what's possible, it's critical to remember that true exploration is about the willingness to question, to confront the unknown, and to grow beyond what we think we already understand.

The Myth of Discovery: Explorer's Bias

India Ashton, G9

What does one think when 'exploration' comes to mind? Perilous travels? Undiscovered territory? An explorer who navigates new land and returns triumphant with another colony in the hands of his country? Yes, that is the stereotype. However, this cannot be described as exploring, but colonising, and most of this proclaimed 'undiscovered territory' actually was already inhabited. The majority of explorers had just happened across land that they had never seen before, labelled it exotic, and declared it their own. For a very long time, this act of 'I - discovered - it - so - now - it - belongs - to - my - country' was considered heroic, and in both literature and art was represented with riveting tales and depictions of valiant men. Take the book *Conquerors: How Portugal Forged the First Global Empire* by Roger Crowley. According to Goodreads, it is "an epic tale of navigation, trade and technology, money and religious zealotry, political diplomacy and espionage, sea battles and shipwrecks, endurance, courage and terrifying brutality". Although the book does have mentions of massacres and forced conversions, it is built up as part of the drama of empire-creation, rather than a critical outlook on the dangers of this so-called exploration.

It is from this that a question emerges: what about the colonised? What about those who had already been living on these 'new lands'? For the past few decades, we have been entering an era of heightened awareness, in the sense that globally we have reached the realisation that the period known today as The Golden Age of Exploration, may as well be an illusion that hides the true horrors inflicted by these explorers. Therein lies the problem, that of the explorer's bias.

But what is bias? When you search up that exact question, it states that it is the "inclination or prejudice for or against one person or group, especially in a way considered to be unfair." For this argument, the "inclination or prejudice" belongs to the colonised (aka the explorers) which is against the "group", who are the colonised (aka the indigenous population). As the title of this article suggests, it can be easily argued that the

element of discovery in prior adventures is merely a myth, an ideal formed by the colonists that gave extravagance to the tales of their travels. For many years, the indigenous people who already lived in these lands were brutalised, dehumanised and then disregarded, thrown away into the dark corner of 'What History Doesn't Like To Talk About'. Many should be familiar with the phrase, "History is Written by Victors," one that is commonly attributed to Winston Churchill. I believe that this phrase is a universal truth.

It is fair to say that literature has played a significant role in perpetuating explorer's bias. As seen by the extensive list of novels in the literary canon, this type of adventure was romanticised, with white men setting the stage of exploration as a drama fraught with tension. The basic skeleton is as follows:

- Exposition - the explorer sets sail in search of new land.
- Rising action - they arrive at the land but are met with primitive and uncivilised beings.
- Climax - conflict ensues but they win, due to their might and Lady Luck's favour.
- Resolution - they call the land their own, the savages are flushed away, and they return to their homeland with another territory on the map to call their own.

Any argument like this must be justified with solid evidence, so I present proof number 1. Daniel Defoe's first long work of fiction: 'Robinson Crusoe'. Cast our minds back to the mid 17th century, where Defoe plunges us into a story of survival, adventure, and self-realisation, when the protagonist, Crusoe, is marooned on a desert island for nearly three decades. Around 20 years after being stranded, Crusoe rescues a Caribbean native called Friday, from cannibals. This is where the evidence bit comes in. Friday is not just a symbol for all Caribbean tribesmen, but also any natives of the world who would later be oppressed by Western colonialism. Crusoe, believing traditional culture and language to be inferior, tries to 'civilise' Friday, by promptly renaming him, then teaching him English, Christianity, and his way of life. He even refers to Friday as his servant, and instructs him to call Crusoe, "Master", setting a clear hierarchy between the two. What is presented as a story of companionship is

really just one of colonialism at its finest - or should I say worst. Crusoe is the master; Friday is the subordinate. And these roles are never questioned by the narrator; it is simply natural. In essence, this novel reflects the colonial mindset of the time, where Europeans viewed themselves as superior and justified in imposing their culture and beliefs on those they deemed uncivilised.

No house can stand on one pillar, and neither can this argument stand on one piece of evidence. I give you *Heart of Darkness* by Joseph Conrad. Written in 1899, this novel follows the protagonist, Charles Marlow, who ventures into the Congo under the guise of exploration and trade, and meets the fascinating Kurtz, a man supposedly fallen to madness in the African Jungle. Undeniably, this tale can be interpreted as anti-colonial through its description of the brutality with which King Leopold II and other rulers allowed African people to be treated. However, with a closer look, it becomes equally clear that Conrad's depictions of Africa as primitive and uncivilised, and the Black people as savage and rebellious, are fundamentally dehumanising. What unfolds in this novel is truly a narrative saturated with racist undertones. Conrad probably did not intend to depict the Black population of the Congo in this way. Nevertheless, as a result of the long-standing indoctrination of the Western civilisation - in that coloured people are inherently barbaric - novelists such as Conrad have found themselves writing books that - unintentionally - portray this group in this degrading manner. Is '*Heart of Darkness*' a literary masterpiece? Undoubtedly. And Joseph Conrad? A literary artist. This, unfortunately, is the problem. Its renowned brilliance has allowed for its content to go largely unquestioned for decades. Thus scholars and students have been left to read this novel without fully confronting its racial implications.

Both novels serve as well-established staples of the Western Literary Canon, highlighting how explorer's bias has survived in literature: by feeding on the intellectuals who led society and actually read these books. For what is nearing 3 centuries, many novelists used literature to romanticise colonialism, and the cruelty performed at the hands of the colonisers. They were deemed explorers, and possibly, to some extent, they were. They did travel to undiscovered lands, and many - if not all - journeys included some level of danger or peril to overcome (whether it was storms

that threatened to capsize their boat, or native populations who did truly try to eat them). And therefore maybe it is right to glorify a few parts of their adventures for the terror they had to endure to reach their goal. Moreover, it possibly isn't right to blame them fully for their mindset when it clearly was a result of the systemic belief that Western civilisation was superior. Nonetheless, what can be declared without doubt is that novels, poems and the like played a huge role in this indoctrination.

So can we really call exploration, exploration at this point? Maybe not in the way that we would imagine. What was new land to them certainly wasn't new to the natives that had already built their own communities and civilisations there. They discovered, yes, but they also destroyed and dehumanised while they were at it, which is a horrible scar on our history of colonisation no matter how you put it.

Now, what is so wonderful about the 21st century is that we are breaking away from these discriminatory philosophies, and educating the newer generations on the acceptance of all cultures, in hopes to create a pluralistic society. And again, this is being aided through literature. Whilst I understand I have just argued that it has perpetuated bias, I also believe that literature is a part of the force that is helping to dissolve it. I know for a fact that in our school, '*Things Fall Apart*' by Chinua Achebe is a celebrated novel that we study in the Grade 12 Language and Literature curriculum. This book is a true critique on the impact of colonialism on the indigenous population, and also on the danger of remaining inflexible.

In conclusion, this fantasy of the noble explorer is fiction when we compare it to real-life colonialism hidden behind that exciting word called 'exploration'. Through works like '*Robinson Crusoe*' and '*Heart of Darkness*', it is obvious how deeply embedded explorer's bias was in the minds of the educated, leaving it to the 'victors' to shape history, and the colonised to be silenced. Having said that, literature is also becoming part of the solution. Books like '*Things Fall Apart*' are condemning our history of colonialism, opening up the page for bold and culturally diverse authors. They are the ones who remind us that the true story of exploration includes not just those who sailed, conquered and stuck a flag into dirt, but also those who were already there, and those who still feel the effects of that legacy today.

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A Dance with Diversity: Bollywood's Role in Shaping Cosmopolitan Identities

Meher Baweja, G9

Bollywood, the vibrant heart of India's film industry, is often perceived through a lens of glittering romance, enchanting music and dramatic storytelling. However, beyond the shining dance numbers and captivating narratives lies a rich tapestry woven from the threads of cosmopolitanism. The influence of global culture, paired with the fusion of diverse narratives has transformed Bollywood into a truly cosmopolitan phenomenon, reflecting both the complexity of Indian society and culture and the interconnectedness of our modern world. As a kid, my parents would often play me songs and dances from the most popular and well renowned Indian movies; however, I was unable to understand how these performances could play such a crucial role in defining a culture and its people. Little did I know that the arts were some of India's proudest and most attractive aspects, making up a large portion of the nation's culture and atmosphere. As the years progressed, I fell in love with listening to these songs and watching these films as I felt a deep connection to my culture despite living abroad. I could visually experience and immerse myself in the wonderful traditions I had heard about whilst being able to transport myself into a different time and place within seconds.

When the word Bollywood comes to mind, many associate the industry with its heart-wrenching romances or tragic love stories and while this may be true, it is only the tip of the iceberg. The name "Bollywood" is derived from the names "Hollywood", the heart of American film production and "Bombay", the former name of India's largest metropolis (which is now known as Mumbai). Alternatively, when the term Hollywood comes to mind, many think about glistening dresses, red carpets, typical action movies and the iconic white-lettered landmark in the hills of LA. However, beyond the first appearance of these two industries lies so much more rich culture and history.

Bollywood's cosmopolitan nature can be traced back to its origins in the late 19th century. The Lumière Brothers' first pictures, shot in 1896 were presented in

Mumbai. History made its mark when the still photographer known as Save Dada was so amazed by the Brothers' work that he brought a camera from England. His debut film, *The Wrestlers*, was taken in Mumbai's Hanging Gardens and is regarded as the earliest motion picture in Indian Cinema. The silent film era and the following appearance of talkies introduced audiences, particularly in India, to stories that transcended regional boundaries. Through the use of powerful acting and film techniques (lighting, sound and costume), stories that were relevant and comparable had soon emerged in Bollywood, appealing to a range of genders and ages. Even without the use of speech, modern themes and values can be expressed in a variety of ways that are heartfelt to its audience, which is what this stage of Bollywood represents.

Despite this, common stereotypes are also predominantly explored in Bollywood films, shaping the perceptions of Indian culture both domestically and abroad. Many films feature a hero vs heroine dynamic where traditional roles are depicted through male characters being strong, dominant and heroic whilst female characters are nurturing, submissive or in need of rescue. Romantic relationships in these movies often reinforce ideas of male pursuit and female submission rather than a freedom of choice and the right to explore. Some films even present marriage as the ultimate goal of a relationship, often leading to a "happily ever after" conclusion that may not always reflect reality. Weddings are depicted with grand celebrations, elaborate outfits and emotional drama, creating an idealised version of marriage that can shape many women's opinions on the subject. While the screens tell women that marriage must look and feel like a grand event, many in reality experience varying emotions and pressure to achieve certain standards when in fact, they are unrealistic and fictitious. Moreover, female characters frequently lack agency, with their identities and decisions often tied to their roles as housewives or mothers, reinforcing the idea that their ultimate purpose is to support and care for their husbands. This ideology is detrimental to the modern and fast moving society unfolding around us with women constantly proving their self worth and ability to achieve the same or higher standards compared to men. The class representation in Bollywood is one of the most typical and threadbare

portrayals seen in films. Themes of wealth versus poverty and the glamorisation of wealth are often explored in classic movies through frequent contrasts between rich and poor characters. These depictions often simplify complex social issues such as poverty into clear sections, when in actuality, they are layered with nuances that reflect systemic challenges, historical difficulties and individual experiences. The lifestyles of the rich are glamorised with expensive belongings, property and pampered treatment, creating aspirational images in viewer's heads that may not reflect everyday reality for many Indians. This imaginary and idealised style of living can create pressure and unrealistic expectations for individuals and families. People may find themselves comparing their lives to their cinematic portrayals, leading to emotions of dissatisfaction and inadequacy with their own realities.

Recently, Bollywood has begun to change and challenge depictions of traditional stereotypes by portraying more nuanced and diverse characters. These changes have only been possible through the role of audience demand and varying expectations from viewers around the world. Bollywood has had a significant impact on cultural perceptions in Asia by shaping societal norms, fashion trends and promoting cultural exchange. The themes of Bollywood movies often revolve around societal issues, family values, love and relationships. These themes often deeply resonate with the Asian audience and are seen as relatable, influencing their perceptions and attitudes towards these issues. For instance, films that have been seen addressing issues such as women's rights, discrimination and corruption have sparked huge controversy and discussions within society, leading to a shift in attitudes and governing systems.

Ultimately, Bollywood's evolution from its earliest day to its current global prominence is a testament to its ability to adapt to the shifting dynamics of Indian society and the wider world. While the industry has long been associated with idealised depictions of romance, wealth and traditional gender dynamics, it is clear that Bollywood is undergoing a transformation. New narratives are emerging and replacing outdated stereotypes, aiming to highlight the complexities of modern life and the diverse, multifaceted experiences of people across India and even beyond. In an

increasingly cosmopolitan world, Bollywood's fusion of traditional and contemporary themes offers both a mirror to society and a window into the hopes, dreams and struggles of individuals. All in all, Bollywood is much more than just a film industry, it is a vibrant reflection of the cultural and social fabric that binds us all together in the modern world.

Cultural Hybridity: Wangechi Mutu How Does Wangechi Mutu's Art Reimagine the Black Female Body Through a Lens of Cultural Hybridity, Femininity, and Futurism?

Claire Chia, G9

Born in 1972, Wangechi Mutu is a Kenyan American visual artist, known for her powerful works spanning from paintings and sculptures, to film and performance art. Mutu splits her time between her studio in Nairobi and her studio in Brooklyn, New York, where she has made pieces for over 20 years. Through her works, Mutu illuminates multicultural identities and has directed the female body as subject through collage paintings, immersive installations, as well as live and video performances. Her pieces prompt needed discussion around our world's societal issues while delving into conceptual questions of self-image, gender constructs, cultural trauma, environmental destruction and notions of beauty and power. In addition to this, cultural hybridity is a common thread that runs through all of Mutu's works as she harmoniously blends African and Western art influences, myths, and aesthetics to challenge conventional representations of race, Black women, and femininity in contemporary society.

In my opinion, Mutu's art and creative methods embody the very essence of diverse cosmopolitanism as she seamlessly blends cultures together to form a single concept: the fact that we are one community belonging to one world. Utilising collage techniques, Mutu brings various textures and materials, drawing from Western and African influences, creating vivid scenes. Mutu employs a plethora of materials such as magazine cutouts, African textiles, and organic substances to create tactile and visual fusions of art forms. In addition to this, she creates this extremely surreal air around her pieces that link to Afrofuturism to reimagine African identities in sci-fi contexts. This reference to the future reiterates her support for societal change and addresses themes of colonialism by intertwining African historical narratives with Western lenses. Generating new perspectives by under-represented voices, Mutu explicitly rejects modern colonial, political, and social constructs. As well as this, her incorporation of African motifs with traditionally Western art forms symbolise an ideal balance between

cultures, as these elements work together to create a piece that is both globally resonant and deeply personal to those of African heritage. Furthermore, Mutu reflects both the Western and African expectations and perceptions of the female body and self through her use of disembodied or hybridised figures, forming an incredibly impactful image that speaks to audiences. Moreover, Mutu often transitions between various mediums to express her voice. For instance, Mutu is able to express cultural transfigurations by transitioning from painting to sculpture and back again. "This transition was so powerful because I used my mind as an object maker - I think I always painted like a sculptor.", states Mutu. Through her collages, Mutu has responded to Western media and beauty standards: "I began an ongoing critique and an intellectual an actual vandalism of those images, which were violating me by rendering me invisible.". I believe that these words could not be more relevant as Western beauty standards often exclude minority groups and people of colour. These standards reject diversity and strip us of what it means to be human. Wangechi Mutu takes this rejection and she reestablishes the notion of what it means to be human and what it means to be a woman of colour: a story that speaks to many of us.

Finally, Mutu gives a voice to hidden multicultural identities through her personal expression of her crises with her own identity. Mutu believes that ethnicity and one's background is much more labyrinthine, despite society reducing race to a single colour. Exploring the idea of multiculturalism, Mutu uses her art as a tool to examine how ethnic identities (particularly African identities) and experiences are oversimplified in Western discourse, bringing the reality of the intricacies of race forward.

In conclusion, Wangechi Mutu's art reimagines the Black female body through a powerful blend of cultural hybridity, femininity, and Afrofuturism, creating a unique visual language that explores identity, race, and colonialism. Through diverse mediums like collage, sculpture, and performance, she challenges conventional portrayals and emphasises the resilience within multicultural identities, merging African and Western influences to redefine beauty and power in a global context. Her work transcends aesthetics, standing as both a critique of societal norms and a celebration of diversity, encouraging viewers to reconsider their perspectives on identity and envision a world where all voices are acknowledged and valued.

Chanel: A Cosmopolitan Icon of Timeless Fashion

Dalia Raccah, G9

Growing up, I never felt connected to a certain culture - my parents came from places all over Asia, Europe and the Middle East, meaning that I did not celebrate a specific culture. However, when I was younger my father would tell me stories about growing up in two different places - Switzerland and Nigeria - and how it shaped him as a person. His first language was French, thus when I was born, I would speak English at home but attend French lessons every day. I learned about the culture and language as well as the many sports and fashion icons who were French - one of which was Coco Chanel.

Born in 1833 in Saumur, France, Gabrielle Bonheur 'Coco' Chanel is among the most famous luxury brand founders. Chanel was born into a poor household and faced many hardships growing up; her mother died when she was just 11 years old, leading her father to abandon her and her siblings. The children were put into an orphanage where they learned to sew, a skill that would benefit Chanel in the future. Chanel was first introduced to the fashion industry when she was working as a seamstress in Paris, this then led her to open her first hat shop in 1910, followed by clothing boutiques in Deauville and Biarritz, both of which are elegant cities along the French coast. At the time, her shop attracted the upper class and aristocratic as she designed pieces that were simple, yet elegant and luxurious. This led to her brand becoming synonymous with innovation and sophistication and gradually turned into the luxurious fashion empire that we now know it to be.

Chanel rose to fame during the First World War and her designs offered women practical alternatives to corsets and other constricting items. Her most popular piece was the 'Jersey Dress' which was inspired by men's fashion - this piece was flowy and gave women the freedom to move and be more comfortable. By designing this, Chanel was able to build a brand that highlighted both masculinity and femininity by pursuing independence and sophistication, which was unusual at the time. Her philosophy was to blend

elegance with practicality, bringing her lasting fame and recognition.

One of her most iconic pieces was the 'Little Black Dress', released in American Vogue on the first of October 1926. This piece redefined high fashion as it was a minimalistic yet chic piece that many viewed as a 'revolutionary move' for Chanel as she made the product accessible to women from all walks of life. Another signature Chanel product is the 'Chanel No. 5 Eau De Parfum', released on the 5th of May 1921. Eau De Parfum, which is French for 'perfume water', is a type of fragrance that contains a lower amount of fragrant oil than perfume, but more than 'Eau De Toilette', which is French for 'water of the toilet'. This 'Eau De Parfum' was named number five as Chanel considered this to be her lucky number - many of her products were released on the fifth day of the month as a result.

Today, Chanel has become one of the most luxurious brands in the world. They offer cosmetics, accessories, perfume, ready-to-wear pieces and haute couture, which translates to 'high dressmaking' in French. Chanel offers high-end fashion items that are expensive and extremely exclusive. These pieces are worn by many icons such as Margot Robbie, Kristen Stewart and Pharrell Williams. Chanel's current creative director, Virginie Viard, aims to balance traditional designs and modern interpretations to ensure that the brand remains an influence in global fashion.

Chanel shows are known for being innovative and an experience in themselves - two of the most famous shows are 'The Supermarket Show' of 2014 and 'The Beach' show of 2018. In 2014, the runway was transformed into a Chanel-branded supermarket aisle where models shopped for different products. This performance showcased the fall and winter collection of the 2014-15 season and was directed by Karl Lagerfeld. The 2018 'Beach Show' consisted of the runway being turned into a sandy beach setting with waves, real sand and models who walked barefoot. This show highlighted the brand's dedication to innovative shows and runway experiences whilst also exhibiting the 2019 spring/summer ready-to-wear collection.

On Tuesday the first of October, Chanel made an appearance at the 2024 Paris Fashion Week, attracting global attention to their spring/summer collection (2024). Virginie Viard's designs were presented through an immersive presentation, highlighting Chanel's expertise in combining classic fashion pieces with contemporary elements. Viard's inspiration for this year's show was Chanel's deep history and Coco Chanel's lasting legacy. We saw a mix of vintage and modern styles as the brand continues to withhold its legendary aesthetic whilst also exploring recent designs and experimenting with different materials. The spring/summer collection consisted of a vivid colour scheme that witnessed a fusion of metallic and pastel hues, airy fabrics, and a multitude of textures. Some of the accessories included oversized hats, feathered accessories and pearls, which symbolise Chanel's elegance and luxury.

The event saw many celebrities and influencers wearing Chanel pieces, showcasing the brand's relevance in today's fashion world and culture. Fashion critics admired Chanel for their craftsmanship, creativity and commitment to its intricate heritage. The media praised the brand for their fusion of nostalgic and modern elements and the splendour of the runway and venue. As per usual, the upcoming Chanel collection was revealed at Paris Fashion Week, leaving the audience excited for upcoming shows that promise grandeur and innovation. The fall/winter 2024/25 collection is expected to be showcased in early 2025, with creative direction coming from the infamous Virginie Viard, who has said that potential immersive themes for this show include technological integration.

Ultimately, Chanel's journey to becoming a symbol of luxury and innovation all around the world serves as a testament to her visionary spirit and everlasting influence on the fashion world. Not only has Chanel revolutionised women's clothing, but she has also created iconic pieces such as the Little Black dress and Chanel No. 5 perfume. Under Viard's creative direction, the luxurious brand continues to shape modern fashion as well as provide a mix between classic elegant styles and modern innovations, as the recent Paris Fashion Week shows. Chanel's rich history has led it to remain a high fashion brand that constantly pushes boundaries whilst also staying connected to its iconic roots.

Drawn to the Distance: Why Artists Never Stay Still

Emma Draminksy, G9

Somewhere in almost every landscape painting, there's a line that separates what's here from what's out there. It might be a faded mountain range, a stormy sea, or the hazy edge of a desert. Artists have been adding horizons to their work for centuries—not because they expect anybody to reach them, but because something about the distance keeps on calling.

We often think of adventure as something extraordinary: crossing oceans, climbing mountains, or travelling to unfamiliar places. But for many artists, the most powerful explorations don't happen geographically. They happen in the mind—in perspective, emotion, and imagination. In that sense, art has always been a kind of voyage: not just through the world, but through the unknown parts of ourselves. The romantic landscape artist J.M.W. Turner painted turbulent, glowing paintings of seas where ships seemed to mysteriously vanish into fog and flame. His paintings weren't just about oceans—they captured deep, existential emotions. He mixed fear, chaos, beauty, and even hope into his brushstrokes. In Turner's hands, the sea wasn't just water; it was a metaphor for how human experience could be unpredictable, powerful, and mysterious.

Today, artists still follow that instinct. Astronauts from the International Space Station take photos of Earth that are both scientific and artistic. These images are not simple to record what our planet looks like, but to remind us of our fragility. From space, Earth seems delicate, distant and floating in utter silence. But looking at images helps us zoom out and realise the scale of our lives in the universe.

Meanwhile, digital artists build strange, dreamlike worlds with tools Turner could never have imagined. Photographers document remote landscapes or even ordinary street corners in ways that make us stop and look again. Even rough doodles in a school notebook can carry a sense of curiosity, such as the desire to figure something out, or to express what cannot be explained. I'm sure many of us, at one point or another, have found ourselves sketching without thinking—perhaps during a quiet moment in class or

while lost in thought. These spontaneous drawings could be imagined cities, far-off landscapes, or abstract shapes that hint at something beyond the present moment. In their own quiet way, they reflect the same impulse that drives exploration: a desire to look elsewhere and capture something just out of reach. In all these cases, the artist is setting out on a journey, whether the destination is a real place or just a feeling they haven't quite named.

That's why the connection between art and exploration remains so powerful. When an explorer sails into unknown waters, they risk getting lost. When an artist begins with a blank canvas, they risk failure or disappointment. Neither guarantees success. But they almost always lead to discovery.

And here's the thing: most of us are already navigating journeys of our own. That's why art can feel so personal and yet so universal. Behind every artwork is somebody who was, in some way, searching. They may not have known exactly what they were searching for, but they were willing to look. And when we engage with that work—whether it's a painting, photograph, or sculpture—we catch a slight glimpse of their journey for a moment. We borrow their eyes. We see their horizon.

This idea feels especially relevant during adolescence. Growing up, making decisions is a kind of exploration. You're constantly discovering new versions of yourself, asking big questions, and trying to make sense of a world that doesn't always explain itself. Art gives us a space where uncertainty is allowed. It reminds us that beginnings matter. A single line, brushstroke, or photograph can carry a whole story. And just like in exploration, there are moments of being lost, moments of surprise, and moments of quiet discovery.

So when we walk through a gallery, scroll past an illustration online, or even see a spray of graffiti on a city wall, we're not just looking at random displays of colour and shape. We're seeing someone's journey—a record of where they went in their mind, and what they found there.

That's why artists don't stay still. Maybe neither should we.

No matter how far away the horizon seems, it's always inviting us to look closer. Not to conquer it, but to understand what it means. To explore is not always to travel. Sometimes, it's simply to imagine, to create, and to express. And in those quiet acts, we might discover something just as vast.

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Why do we know more about Space than our Oceans?

Adriana Torrubia Baeza, G10

The deep sea and space appear as the last frontiers for humanity to uncover. These distant and difficult to access realms fascinate us, despite their differences. What we know or don't know depends both on the means employed and the questions that we want answered.

70% of the oceans cover the Earth with an average depth of 12,100 feet (3,700 meters), and if we were to look down from the surface with a mask on, we would only be able to see the bottom if there were less than 33 feet (10 meters) of water.

Water is the main barrier to knowledge of the ocean depths: electromagnetic waves (light, lasers, and radio waves) are quickly absorbed by it, whereas in space, they propagate over immense distances. Therefore, we can only characterise the oceans indirectly from ships using acoustic sounders or by collecting samples with tools suspended by a cable. Occasionally, submarines (either human-controlled or robotic) are used, which can only observe within a few dozen feet around them using powerful projectors.

In 2023, only 25% of the seabed reliefs had been mapped by acoustic methods. These ships travel at a pace of 5 km/h, so it would take three centuries to cover the ocean floors entirely at this pace.

In the 1990s, a new method roughly estimated ocean depths based on small variations in water-surface altitude measured by satellites. In 2023, about 25% of the ocean's floor was mapped at a resolution of 50 m/pixel, however, there has not been much advancement since then.

Wherever we have searched, new unique organisms have been discovered. Deep-sea exploration in the 1970s revealed that photosynthesis is not the only primary source of living matter. At the base of deep hydrothermal vents, which emit hot and 'toxic' fluids, oases of life proliferate thanks to chemosynthetic bacteria capable of producing organic matter without light. Since then, chemosynthesis has also been observed in coastal, terrestrial, and even atmospheric environments.



Moreover, as well as not having the proper equipment to continue to explore the deep sea, conditions in the deep-sea environment include very high pressures, total darkness, extreme temperatures, and toxic chemicals. Hydrothermal vents, for example, are deep-sea ocean habitats where hot fluids erupt from the seafloor.

If humans were to physically go down to some of the deepest, unmapped areas of the ocean, the pressure from the water would push in on the person's body, causing any spaces that are filled with air to collapse. The same would happen in any submarine.

The deepest part of the ocean is called the Mariana Trench, which is at 35,876 feet (10,935 metres). For comparison, that is deeper than Mount Everest is tall. Not even the tallest mountain on Earth could reach the deepest part of the ocean. By size and volume, the oceans are unimaginably gigantic, and just from size alone, it is easy to see how difficult it would be to explore the entirety of the Earth's oceans.

Although technological advancements have allowed humans to explore the oceans like never before, the cost of underwater exploration is not cheap either. Despite all of these advancements, humans have only managed to examine roughly 5% of the oceans. That

means that society has only really managed to map out 35% of the Earth's surface. 65% of what is in the ocean remains a complete mystery to us.

Much like with the Earth's oceans, humans cannot survive in space without the aid of technology. That makes space exploration tremendously difficult, not to mention the fact that space travel is extremely expensive. However, scientists can use technologies to discover the distant universe, unlike the oceans. The most powerful telescope can see up to 13 billion light years away. Even in just our solar system, scientists have already mapped out all the planets and their proximity to Earth. They have already made more accurate maps of the surfaces of Mars, Venus, and Mercury than they have of the Earth's oceans.

However, there is one important factor to consider: the Earth's oceans may be huge, but they are nothing compared to the vastness of the universe itself. The size of the cosmos stretches beyond what the human brain can physically comprehend. Although telescopes have helped scientists see most of the visible matter in space, most of the universe is composed of 'dark matter' and 'dark energy', two components of the universe that do not interact with physical matter or light, making it impossible for us to view with our eyes.

If we were to assume that humanity has explored most of what is visible in the universe, that only comprises roughly 4% of everything in the universe, leaving 96% as dark matter and energy.

Since the speed of light is finite, there is a physical limit to how far we can see. There is very likely more universe out there to discover, but it will forever be hidden from us by the laws of Physics.

Mystery surrounds the oceans of our world and the cosmos above. In terms of what we can see in the universe, we have explored roughly the same amount of the oceans as we have the universe. However, we may not physically be able to see more than what we have already seen in the universe.

As technologies advance, we are likely to uncover more. Who knows what discoveries await us, and challenge what we already know about the natural world?

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Medical Society

academic

Capsule Endoscopy

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Imagine swallowing a tiny pill that could take thousands of pictures of the inside of your body, as it travels through your digestive tract. Well, what if I told you that it's a real device that doctors use for patients, and the method is called "capsule endoscopy".

You might have heard other words in healthcare that end in the suffix of "oscopy", such as laryngoscopy, bronchoscopy or colonoscopy. The suffix of '-oscopy' derives from the Greek verb "skopein", which means "to view" or "to examine". The prefix added before tells us the specific organ that is being viewed, such as "laryng" meaning larynx (voice box), in "laryngoscopy", or "colon" in "colonoscopy". As such, small bowel capsule endoscopy refers to the examination of the small intestine, through the use of a small pill-sized "capsule". It is swallowed by the patient, and takes thousands of pictures of their digestive tract as it travels through their body.

Capsule endoscopy is mainly used to help doctors identify and diagnose problems in the small intestine, especially issues that are hard to detect using traditional tests like colonoscopies or X-rays. One of the most common uses is to find the source of unexplained bleeding in the digestive tract. Capsule Endoscopy is also helpful in diagnosing Crohn's disease - a long term condition where parts of the digestive system become inflamed, which leads to symptoms like pain, diarrhoea, and fatigue. Doctors also use capsule endoscopy to look for polypus, which are small clumps of cells that can sometimes develop into cancer. If a patient has ingoing symptoms like digestive issues or abdominal pain and no other test has shown the cause, capsule endoscopy can be a useful next step.

The process of capsule endoscopy is quite simple and less invasive than other types of endoscopy. The patient must swallow a capsule that will contain a tiny wireless camera, a light, a battery, and a transmitter. The capsule will travel down naturally through the digestive system and will take around 50,000 to 60,000 images over several hours. The patient will wear a small device (usually around their waist), that will retrieve the images.



Later, a doctor will review the images to see if there are any abnormalities or signs of diseases. The capsule will pass out the body naturally in about 24 to 48 hours.

The method of swallowing a tiny pill-sized camera is a new technology that is more preferred by patients, as it is less uncomfortable than traditional methods, such as bronchoscopy. In bronchoscopy, a thin, flexible tube with a camera (bronchoscope), is inserted through your nose or mouth and down your windpipe to your lungs. This procedure sounds, and is, extremely uncomfortable, therefore the doctor delivers a sedative to the patient, to ensure that they are unconscious and relaxed during the examination. On the other hand, capsule endoscopy does not require any anesthesia, because the process does not cause any discomfort to the patient.

Even though capsule endoscopy is convenient and painless, it does have some problems. In some rare cases, the capsule could get stuck in the body, especially if the patient has a narrowing or blockage in their intestines. This blockage could require surgery to remove. Another limitation is that the capsule can only take pictures, so it can not treat anything it finds or take tissue samples (biopsies), which traditional endoscopy can do. This means that if the capsule does detect something abnormal, the patient would need a follow-up procedure.

Overall, capsule endoscopy is a high-tech, less invasive and more comfortable alternative to a tube insertion in other endoscopies, offering the ability to reach other parts of the digestive system that other tools often can't access. It's pretty amazing how such a tiny device can capture such detailed and clear images of the inside of our body. Capsule endoscopy represents a significant step in global healthcare, and gives us an insight into the future of healthcare - one where innovation in technology can make diagnostics smarter and safer.

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Number Theory Society

academic

The Infinite Journey of Pi: From Ancient Curiosity to Modern Marvel

History of π

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π /pai/ (said 'pie') is one of the most widely recognized numbers in mathematics. Defined as the ratio between a circle's circumference and its diameter, π is both irrational and transcendental. The irrationality of π means that it cannot be expressed as a fraction, and has a decimal expansion that goes on forever without repeating. Being transcendental means that it cannot be a solution to any algebraic equation with integer coefficients. In simpler terms, π cannot be expressed as a root of a polynomial equation where all the coefficients are whole numbers. Many mathematicians across centuries have dedicated their lives to understanding its properties.

The fascination with π began thousands of years ago. Around 1900 BCE, Babylonian mathematicians estimated π to be about 3.125 using geometry. Not long after, Egyptians, as recorded in the Rhind Papyrus (~1650 BCE), approximated it as 3.1605. While not precise, these values reveal early attempts to understand the circle.

A major advancement came in 250 BCE with the Greek mathematician Archimedes. Using inscribed and circumscribed polygons, he bounded π between $223 \div 71$ and $22 \div 7$. This approach, known as the method of exhaustion, laid the groundwork for future approximations.

In 5th-century China, mathematician Zu Chongzhi provided an exceptionally accurate estimate: $355 \div 113$, correct to six decimal places. Though details of his method are lost, it's believed he expanded on

Archimedes' techniques with more sides and intricate calculations.

By the 17th century, the development of algebra and calculus revolutionised π calculation. In 1656, John Wallis introduced an infinite product formula. Soon after, Isaac Newton used his binomial theorem to compute π to 16 decimal places. The Gregory-Leibniz series offered another infinite method.

This series converges slowly but historically advances the understanding of π . In the 18th century, Johann Lambert proved that π is irrational, and Ferdinand von Lindemann later demonstrated its transcendence. The symbol π was introduced in 1706 by William Jones and was popularised by Leonhard Euler.

The computer era brought rapid progress. In the 20th century, Indian mathematician Srinivasa Ramanujan developed highly efficient formulas for π , still used today. In 1949, ENIAC computed over 2,000 digits. By 1961, IBM machines reached 100,000 digits, and by 1973, π had been calculated to one million digits. Now, π is known to more than 50 trillion digits. Despite this, no pattern has emerged, reinforcing its randomness. Computing π is now a benchmark for testing computational power.

Beyond math, π has permeated pop culture. It appears in movies like "Life of Pi" and shows like "The Simpsons." March 14th (3/14) is celebrated as π Day, a tradition initiated by physicist Larry Shaw in 1989.

Ultimately, π is more than a constant; it's a symbol of human curiosity, our desire to impose order on the infinite.

How can we find the value of π ?

Solution 1: Geometry (the most direct and obvious way)

Step 1: Use a rope to cover the circumference of a circle, and measure the length of the rope.

Step 2: Use circumference \div diameter = π

Solution 2: The Archimedes Exhaustion Method

The ancient Greek mathematician Archimedes pioneered the theoretical calculation of the approximate value of π .

Step 1: Choose the radius of the circle r .

Assume we have a circle with radius r . The formula for the circumference of the circle is $C=2\pi r$, and we want to approximate this value using the perimeters of polygons.

Step 2: Choose the number of sides n of the polygon. Archimedes started with an inscribed and circumscribed regular hexagon and gradually increased the number of sides. By increasing the number of sides of the polygon, the perimeters of these polygons get closer to the circumference of the circle.

Step 3: Calculate the perimeter of the inscribed and circumscribed regular n -sided polygons.

Suppose we started with a regular hexagon:

Inscribed regular hexagon: We can calculate the perimeter of the inscribed hexagon using geometry. Let the side length be a , then the perimeter is $6a$

Circumscribed regular hexagon: The perimeter of the circumscribed hexagon can also be calculated geometrically. Let the side length be b , then the perimeter is $6b$.

Increase the number of sides gradually: Archimedes kept increasing the number of sides of the polygons and calculating the new perimeters for both the inscribed and circumscribed polygons. As the number of sides increased, the perimeters of both the inscribed and circumscribed polygons got closer to the circumference of the circle.

For every additional side, a new pair of bounds is obtained, and these bounds become tighter, approaching the actual circumference of the circle.

Step 4: Calculate the value of π .

By increasing the number of sides of the polygons, Archimedes ultimately obtained two bounds, one from the inscribed and one from the circumscribed polygon. From these bounds, he determined that the value of π lies between 3.1408 and 3.1429.

Specifically, the result of Archimedes' calculations was:
 $3.1408 < \pi < 3.1429$

This was already a very close approximation of the true value of π .

Archimedes' approach embodied the idea of iterative algorithms and numerical approximation on both sides and provided important insights for later mathematicians.



Solution 3: Gregory-Leibniz Series

$$\pi = 4 \times \left(1 - \frac{1}{3} + \frac{1}{5} - \frac{1}{7} + \frac{1}{9} - \dots\right) = 4 \times \sum_0^{\infty} \frac{(-1)^n}{(2n+1)}$$

The Leibniz series is a famous interleaved series named after the German mathematician and philosopher Gottfried Wilhelm Leibniz. This series is an infinite series representation of π and is of great mathematical and historical importance.

This series is a staggered series in which the denominator of each term is odd and the sign alternates between positive and negative. The Leibniz series can be used to calculate approximations to π , it converges relatively slowly but can converge to the approximate value of π .

The Leibniz series is actually the result of an infinite series expansion of the area of a circle.

The formula for the area of a circle is $A=\pi r^2$, where A is the area and r is the radius. For the unit circle (radius 1), the area is π .

On the other hand, the formula for the circumference of a circle is $C = 2\pi r$, and for the unit circle, the circumference is 2π . The Leibniz series utilises the relationship between the circumference and the area of a circle in order to compute π .

The geometric interpretation of the Leibniz series can be understood by starting with the area of the unit circle's interior orthogonal polygon and exterior tangent regular polygon. As the number of sides of the regular polygon increases, the area of the interior regular polygon gets closer and closer to the area of the circle, while the area of the exterior tangent regular polygon gets larger and larger than the area of the circle. As the number of sides of the regular polygon tends to infinity, the areas of the interior and exterior tangent regular polygons will converge to the area of the circle, respectively.



The Leibniz series approximates this limit by staggered addition and subtraction. Each term of the series can be thought of as part of the calculation of the difference between the areas of the interior and exterior tangent orthogonal polygons. As the denominator (i.e., the number of sides of the regular polygon) gets larger, each term contributes less and less, but they add up closer and closer to the actual area of the circle.

Mathematically, the Leibniz series is based on the properties of Taylor series expansions and interleaved series. Each term in the series can be viewed as part of a Taylor series expansion of the derivative of the function $f(x) = x^2$ at $x = 0$. By interleaving additions and subtractions, this series is able to converge to π . Thus, the Leibniz series is able to compute a value close to π because it is based on the geometric properties of a circle and the mathematical principles of infinite series.

Solution 4: The Monte Carlo Method

The Monte Carlo method relies on the principles of random numbers and probability statistics. It estimates the value of a quantity by generating a large number of random samples. In the case of calculating π , this method usually involves the following steps:

Step 1: Choose a unit square.

First, we draw a square in the plane with side length 1. The area of this square is 1.

Step 2: Draw an intrinsic Circle.

An intrinsic circle is drawn inside the square, i.e. the circle is tangent to each side of the square. For the unit square, the radius of the endo tangent circle is 0.5, so the area of the circle is $\pi/4$.

Step 3: Random Point Generation :

Next, we generate a large number of random points inside the unit square. The coordinates (x, y) of these points are chosen randomly between 0 and 1.

Step 4: Point-circle determination:

For each random point, we check whether it falls inside an interior tangent circle. If the coordinates of the point satisfy the condition $x^2 + y^2 \leq 1$, then the point is inside the circle.

Step 5: Probability and area estimation:

Since the areas of the square and the tangent circle are known, we can calculate the proportion of points inside the circle. This proportion is equal to the area of the circle divided by the area of the square. Therefore, we can use this proportion to estimate the value of π .

Monte Carlo methods are simple and versatile. They use random sampling to estimate values and can be applied to problems like calculating π , solving integrals, and simulating systems.

Their main drawback is statistical error—accuracy depends on the number of samples. More samples improve precision but increase computation time. Still, they offer a practical way to approach complex, uncertain problems.

Does Pi Change in Non-Euclidean Geometry?

π is defined in Euclidean geometry as the ratio of any circle's circumference to its diameter. On a flat plane (Euclidean space), no matter the size of the circle, dividing the circumference by the diameter always gives π . This is a fundamental fact of Euclidean geometry – every circle is “in sync” in this way. For example, if a circle's diameter is 1 meter, its circumference will be about 3.1416 meters; if the diameter is 2 meters, the circumference is about 6.2832 meters, and so on. The ratio stays constant at ~ 3.1416 for all circles in a flat space. This idea is so familiar that we often take it for granted. π is ingrained in formulas like $C = 2\pi r$ and $A = \pi r^2$ for a circle's circumference and area.

Now imagine drawing circles on a curved surface, like a sphere (e.g., Earth's surface). Spherical geometry, a form of non-Euclidean geometry with positive curvature, changes how circles behave. On a sphere, the rule $C = 2\pi r$ no longer holds exactly. A circle's circumference is smaller than π times its diameter because the surface curves inward, limiting how far the circle can spread.

For small circles, the effect is minimal—the surface is nearly flat locally, so $C \div D \approx \pi$. But as circles grow, the ratio noticeably decreases. For instance, a 1000-mile radius circle on Earth yields a ratio around 3.10867. With even larger circles, the value drops further. In the extreme case of a circle spanning half the globe, the ratio approaches 2.0.

Now consider hyperbolic geometry, a non-Euclidean system with negative curvature (like a saddle or Pringle chip). Unlike a sphere, hyperbolic surfaces curve outward, allowing circles to expand more. In this space, a circle's circumference exceeds what π times its diameter would predict in flat geometry. That is, $C \div (2r) > \pi$ for any sizeable circle.

So, does π change in non-Euclidean geometry? No— π itself remains constant at approximately 3.14159. What changes is its role in geometry. In flat (Euclidean) space, every circle gives π when you divide circumference by diameter. But in curved spaces, this ratio varies. On a sphere (positive curvature), the ratio is less than π for large circles. On a saddle-shaped (hyperbolic) surface with negative curvature, the ratio exceeds π .

The curvature of space affects how circles expand or contract, but not the fundamental value of π . A helpful way to remember: spheres “pinch” circles, shrinking their circumference, while hyperbolic surfaces “stretch” them.

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Chinese Literature Society

academic

《你是我茶里的猫毛》

Albert Yang, G11

你是我杯子里那根永远捞不出的猫毛，
平凡，却执念；
我喝你，
你痒我。
你走路带风，风吹掉我奶茶的吸管，
这不是比喻，
这是命运的捉弄——
因为我刚买的那一杯是加珍珠的。
我梦见你变成一颗红薯，
在大地的怀里发芽，
我在你旁边变成了盐，
腌了自己三百年，
只为配你这顿晚餐。
你一笑，天就不下雨，
你一叹，Wi-Fi就断线。
你说我们要一起看星星，
结果我看的是你在吃薯片的背影，
但我没怪你，因为那是宇宙给我的答案。
如果你是一种植物，
你就是那种我养了两天就死的那种，
但我还是会继续养，
因为你死得很有审美。

《荒芜夜》

Jin Tan, G11

月光将恩泽洒满人间，
今天又是沙漠寂静的一夜。

风中，
一道飘摇的身影款款走来，

踩着碎金般的沙粒，
身披的丝绸在风中褪色，

抚过疲倦的沙丘，
裹住她赤裸的足踝。

千夜的明珠，
早已沉入幽黑的流沙深处。
唯有她发间的银铃，
仍在吟唱，

那些被风干的辉煌

就像流雾

在她的指尖
缓缓地
慢慢地
流淌。

忽一下旋转
裙纱切割着投射的月光
将完整的圆
切成一地碎银。

而沙漠张开

干裂的唇

饮下她的影子
也饮下
一个王朝最后的

倒影

她已经走了很久，
身后的废墟没有人会回应。

唯独沙粒爬上她的睫毛

凝结成

永不坠落的

星

破茧

Wang Can, G8 (汪粲)

牛城人的一生似乎都活在他人的阴影中。儿童时，家长督促你日夜不休的学习，美其名曰“赢在起跑线上”；青年时，你眼前又被茫茫的雪白填满。几道鲜红的印记似是笔迹，又似是血迹，敲定你的人生；成年后，你的人生依旧充斥着无声的哀嚎：眼前是无边的压榨，身边是逐渐老去的父母，身后是过去的不甘和腐烂的梦……

亢范的人生是由他人的嘉奖堆砌起来的人生：小时候，人们夸他懂事，夸他孝敬长辈；青年时，人们夸他品学兼优，夸他干了该干的事；工作中，人们夸他勤勤恳恳，夸他俯首甘当孺子牛。他的人生充满了成功与嘉奖，但他却并不享受这样的人生。

太阳照常升起，清晨的阳光洒进亢范的卧室。“新的一天，加油！”他对自己默念道。

前往公司的路比平时略微长了一些，亢范的车在一条十字交叉路口停了下来。几十辆汽车挤在几座钢铁高树之间，时不时的发出一两声急躁的轰鸣。亢范的心情也随着愈来愈多的轰鸣变得不再平静

“无论发生了什么，我不能迟到！”这么想着，他握住了方向盘，抑制住了鸣笛的冲动。

突然，几个小孩子冲进了亢范的视线。他们背着书包，但脚步轻快又灵动，他们的手里握着书，脸上却洋溢着快乐的神彩。

他们在人行横道上蹦跳着，手在空中舞动，向同伴比划着什么，好似是自己经历的有趣的故事，又好似是唤醒同伴的回忆……他们在路上时快时慢的跑着，不时向同伴做出奇怪的鬼脸，又迅速的变成大笑和叫喊。几个行人向他们望过去，眼里充满了惊奇和鄙夷，但孩子们并不在意，全心沉浸于彼此描绘出的奇妙世界中，言语里充满了童真和稚气，一会聊着老师对他们的评价，一会对着自己的未来天马行空……

但人行横道里，这几个小孩的存在犹如大海中随波逐流的几片树叶，被其余的脸色阴沉，面无血色的人们所裹挟着，虽不一样，又好似一样。孩童们的嬉笑打闹淹没在了更多人整齐划一，掷地有声的脚步声中，少年们口中的豪言壮志在茫茫的人海中被遮掩，被忽略，这些新生的太阳也渐渐地走向了属于自己的死亡。

亢范环顾自己的汽车，车不算宽敞，但可谓五脏俱全。车内广播，香水，手机，样样具备，充分的保障了亢范外出需要的一切。可亢范这一次检查时，却感觉少了些什么。儿童稚嫩的歌谣传入亢范的耳朵，仿佛一个信号，刺激了他。那是什么旋律？陌生？熟悉？亢范不得而知。但他确定，车里应该缺了什么：于是他翻开车里的箱子，没有；他回头看向后座的靠垫，没有；他把头望向副驾驶，没有。

“我到底缺了什么？”亢范想着，可他的脑中却仿佛被抽离了一块拼图，只残留下无尽的暗和空洞，可那里真的什么都没有吗？

意识到自己已经为此浪费了不少时间，亢范急忙将自己的思路拉回：“他们的生活这么轻松，学习一定不会很好！”亢范对这种行为嗤之以鼻，可他感受到，在他的内心深处仿佛出现了一丝裂痕，里面透出了一簇亮光，一簇消失已久的亮光。

抵达公司后，亢范开始了一天的工作。他的工作十分寻常，只是总结归纳其他部门所发的数据，并做成表格。但今天的工作似乎格外特殊，数据凌乱而没有规律，着实让亢范的部门有些为难。联想到早上的乱象，亢范不由得长叹一声，“唉！今天会是难熬的一天！”这么想着，他将头埋得更低，扎进了混乱的数据之中。

耳畔边传来了一些嘈杂，让亢范不由自主地抬起了头。“你在干什么！现在这么关键的时间你和我说你还要去学音乐？你疯了？”一个同事几近疯狂的怒吼穿过整个办公室刺进亢范的耳中，紧接着是电话另一头传来怯生生的，颤抖的声音，“爸，我真的很喜欢音乐，而且我现在的成绩也不差……”却被亢范同事的吼叫再一次打断：“你现在的成绩？你和我说连全年级前10都进不了的人的成绩叫好？你别忘了当时我和你妈花了多少精力才把你送进这个学校，你要是敢不学习，你看不打死你！”

争吵声还在继续，同事如海啸般的怒吼渐渐盖过了电话那头少年的回应，两人的争吵也逐渐变为了一方对另一方绞尽脑汁的责骂和批评。可亢范的思绪逐渐飘回了从前：曾经，他也沉迷于音乐的旋律和迷人的歌词中，他也幻想过追逐音乐梦想的天空，他也畅想过自己所可能的未来……但现实的压力和父母的责备迫使他放弃了他的梦想，每当亢范企图和父母沟通，博得

同意时，回应他的却只有不分青红皂白的谩骂和父母二人“完美”的演绎：每当这时，父亲便会感慨家族的衰败和自己的不幸，而母亲便会顺水推舟似的将一切责任揽在自己身上，让亢范感到愧疚和自责。渐渐地，日月剧增的作业和父母对他无边的期待和指责逐渐让他相信音乐的韵律会使人沉湎于过去，停滞于现在，进而挫败于未来。他慢慢地将注意力再次放在了白纸上一个个血红的数字和作业里一次次的对勾上，淡忘了自己所有过的梦想。只是在夜深人静时，聆听着来自过去的律，亢范还是会想起自己那段“可耻”的时光。

一颗巨石的落地将亢范的思绪拉回了现实。是成绩通知书？是工作？亢范已经分不太清。电话里，父亲和孩子的争吵还在继续，可这一次，亢范对电话另一头的少年却没有责备，因为他从这个少年的身上看到了一个不同的影子，一个久远的影子。那个影子曾几何时也有过自己的梦想，也想过要凭借自己的手段追寻自己的爱好，可现实如同一块沉重的巨石，带着父母的期待和社会的职责，压碎了他可笑的，轻如鸿毛的梦。

亢范不禁对自己所信仰的，父母乃至社会所贯彻的理论生了一丝怀疑：学习难道是人们唯一的出路吗？亢范不由得瘫倒在电脑桌前，他突然感到前所未有的平静。耳畔边不再是父子的争吵，目极之处也不再是一堵白墙。他仿佛站在一片草原，一片广袤无垠的草原，一片只属于他的草原。恍惚间，亢范仿佛听见了一丝旋律从远方传来，旋律里夹杂着笑，充满稚气的笑。那旋律并不悦耳，但亢范却觉得那是他此生听过的最美妙的乐曲。

谁在演奏？是他人？是年少的自己？是现在的自己？亢范感觉他的心脏跳得很快。

一天结束，亢范回到了自己的家。这一天让亢范感慨万千，来不及多想，他便累倒在了床上。再一睁眼，眼前是俨然的课桌，滔滔不绝的老师，和昏昏欲睡的同学，“我在哪里？”亢范感到疑惑，我为什么在课堂里？来不及思考，讲台上的老师对着一众学生大喊：“你们现在不努力学习，以后怎么办？你们能和其他人比吗？学习是你们唯一的出路！”

不知为何，亢范的心跳得比以往都要快，他的心中仿佛有什么东西呼之欲出，而他也被一种从未有过的情感所充斥，他不太清楚为什么他会在这里以及他为什么会这样激动，但是他需要这么做！

此刻，深处的裂缝逐渐扩大，透出一片，一块，一束光，刺进了亢范的心里：“他是对的吗？我的生命真的由于这样的学习变好了吗？”他想起了父母对他的期待，他想起了拿到录取通知书时的欣喜，他想起了进入公司的激动，他想起了第一次被提拔时的发自内心的满足，但他也想起了自己在日复一日学习中的煎熬以及工作时如同机械一般的人生和不断增加的工作。

不，人生的意义不应该局限于在他人的压迫和控制之下！

人生应当闯出自己的色彩！反抗！他要反抗！。

“这个世界中，最重要的是什么？”出乎所有人的意料，一个振聋发聩的声音从班级的最后一排传出，可站起来的人是教室前排的亢范，“成绩？知识？它们是你成功的一种道路，但人生除了它们，还有很多别的东西。诗歌，音乐，艺术，这些你们所谓的‘虚度光阴’的东西正是人所填充自己精神上的空虚所必需的！我们歌颂美好，歌颂成功，也歌颂世间的不同！而你们现在在干什么？牛城人的生命被他人的期待和分数所控制，所创造出的也不过是他人眼中最完美的存在：一个只会听命于其他人的机器！这样的生命有什么意义！我们之所以是人类便是因为我们独一无二的爱好，特长和兴趣！而现在，同学们，我们不应该也永远不会被一个分数所禁锢，我们不会被世俗的教条所控制，我们是独一无二的个体！”

亢范几近嘶哑地喊出这些话语后，一个、两个、三个同学们渐渐的一起站了起来。透过他们的眼睛、，亢范看到了那几个无忧无虑的小孩，那个想要追梦的少年，以及他们内心深处一股熊熊燃烧着的火焰。他们为什么要站起来？是义愤填膺？是感同身受？随着一个又一个同学站了起来，台上的老师的动作逐渐变得僵硬，仿佛被无数条链条所束缚。最终，在所有同学都站起来的那一刹那，教室两侧巍然矗立的高墙应声像四方倒去，光洒在了同学们的身上。

他们迷茫了，反抗、成功、然后呢？

但很快一个同学便向着苍穹大喊：“我想要学美术！”这仿佛刺激了所有人，纷纷喊出了自己尘封已久的梦想，好似对着天空呐喊着自己的梦，又好似在对着残酷的现实竖起了一面反抗的旗。透过他的眼睛，亢范看到了，每个人的身体上都闪耀着星光，却千姿多彩。沐浴在希望与欢庆的光中，亢范再次闭上了眼。

再一睁眼，亢范又在床上醒来。他闻到一股奇异的的味道，抬起枕头，是一支笔，在阳光的照耀下闪闪发光；也是一个梦，在他的内心里闪闪发光。

推开门，清晨的阳光依旧明媚，路上的人们依旧死气沉沉地拖着自己空洞的身体。但亢范能够看见，他们的身体上也散发着光，微小却不同。望着明媚的阳光和拂面的清风，亢范踏出了轻快又沉重的一步，向着阳光，也向着自己所看到的”光“。

*Senior Athlete
Coaching
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Women Shaping Male Dominated Sports

Dalia Raccah, G9

Women entering male-dominated sports are faced with the expectation to conform to traditional gender roles, limiting their recognition and opportunities within the field. Regardless, progress in this field is still made as female athletes are gaining visibility, advocacy and support due to the increase in the rate of participation of women in competitive sports. Statistics have shown that the rate of female participation has increased by 20% between 2010-2020, however, many sports still see 15% fewer female participants. In addition, there continues to be a pay disparity between male and female athletes, as the highest earning female athlete earns 50% less than her male counterpart in the same sport (as of 2023).

Society as a whole has evolved greatly over the last century, especially considering societal norms and views in the early 1900s. Between the 1920s and 1950s, women's sports were deemed as inferior and secondary to men's, resulting in women having limited access to facilities and professional coaching.

On the 23rd of June, 1972, the federal law entitled 'Title IX' was passed as part of the Education Amendments in the United States. This civil rights law prohibited gender discrimination in any and all education programmes. It mandated equal opportunities in sports, leading to an increase in female participation. "Fifty years later, Title IX continues to reverberate around the country, ushering in a new era of women's sports and a framework for handling sexual misconduct complaints on campus.", stated the New York Times in 2022. However, systemic barriers still stand despite global campaigns and organisations working for a more inclusive and equal playing field.

Over time, there have been countless female pioneers in sports, most famously Billie Jean King and Althea Gibson. Althea Gibson was the first African American woman to compete in the US National Championships. Gibson had an 8 year career in tennis, appeared in 19 major finals and won 11 titles. She was the first Black woman to win a Grand Slam title in Wimbledon and the US Open, breaking racial and gender barriers in

tennis. After her accomplishments in tennis, she was the first African American to compete in the 1960 women's professional golf tour. King paved the way for female tennis players in 1973 after her victory against Bobby Riggs in the "Battle of the Sexes", proving that women could compete at the same level as men. Bobby Riggs was one of the top tennis players in the 1930s/40s, and had claimed that women's tennis was so inferior to men that even someone his age (55) could beat the current top female player. King beat Riggs in all three sets and earned a cash prize of \$100,000; she used the prize money to advocate for the creation of the Women's Tennis Association (WTA) and gender equality in sports. King claims that the match was not about defeating Riggs, it was about developing respect and recognition for female athletes worldwide. 90 million viewers watched the battle and it remains one of the most watched sporting events of all time.

However, with great progress comes challenges such as gender stereotypes, unequal funding allocation and online abuse and harassment.

Firstly, gender stereotypes have always had an effect on women, especially in terms of competitive sports. The most common instance of this is the perception that women are less capable in competitive sports due to them being physically weaker. For example, female football players often face criticism and doubt about their ability to handle the sport's intense physical demands. Genetically, men are stronger than women due to them having a higher exposure to testosterone after puberty, which increases muscle mass, bone density and neuromuscular efficiency. Neuromuscular efficiency refers to the effectiveness of the production of movement created by the nervous system and muscle conjunction. However, strength is a component of fitness that can easily be enhanced through strength training, and women who engage in this have been seen to drastically improve their muscle strength and neuromuscular efficiency.

Secondly, women's teams commonly only receive a fraction of the funding that men's teams do, highlighting the inequality of resource and funding allocation. For instance, the prize money for the men's FIFA World Cup was 440 million dollars, whereas the

prize money for the FIFA women's World Cup was only 60 million dollars. Furthermore, women's sports often lack visibility and media, and statistics say that only 4% of all sports media coverage comes from women's sports. In India, despite spectacular performances, women's cricket struggles for airtime due to the domination of men's cricket. Due to the lack of visibility, female athletes struggle to secure sponsorships and endorsements.

The media plays a large role in the perception of women in sports and has been a significant source of abuse and harassment towards female athletes. The past fifty years have seen the rise of online abuse and harassment as female athletes have received disproportionately high levels of hatred and sexism through social media platforms. For instance, Naomi Osaka, a professional Japanese tennis player, has been the subject of racist and sexist comments after her victories, particularly after deciding to withdraw from tournaments due to mental health struggles. After showing her support for the Black Lives Matter movement, Osaka faced harassment and inappropriate remarks on her social media accounts, commenting on her political views and activism. Additionally, Emma Raducanu, a British tennis player, experienced online abuse in the form of racial slurs and sexist comments after her unexpected victory in the US Open in 2021. The media places many unexpected expectations on the young, rising star, leading to criticism after losses and effects on Raducanu's mental health. Both athletes have been open about the damage that the harassment has caused, highlighting the need for change and equality in sports.

In football, men's leagues have historically dominated global attention, however Marta Viera da Silva (notoriously known as Marta) has cemented herself as one of the greatest female football players of all time, breaking records and advocating for the future of women's football. Born in 1986, Marta began playing football, yet was met with societal barriers - despite this, Marta rose to prominence in youth teams across Brazil, showcasing her incredible talent from a young age.

At the age of 17, Marta made her debut in the FIFA World Cup, marking the beginning of a fulfilling and record-breaking career. She was the first woman to score in five World Cups, illustrating her longevity and

commitment to her passion. Furthermore, she scored 17 goals across 5 tournaments, breaking the record of the most goals in FIFA World Cups for both women and men. Marta was named the FIFA World Player of the Year six times, once again breaking both male and female records. Due to her technical skills, ability, drive and creativity, she has become the face of women's football, leading Brazil to a FIFA Women's World Cup victory in 2007. However, her route to success contained many setbacks due to the underappreciation and underfunding of women's football in Brazil. Regardless of gender disparities and the lack of media coverage and sponsorship, Marta has become an icon of women's football, particularly through her social media platforms where she advocates for gender equality in football and urges young girls to pursue their passions.

To boost inclusivity, many initiatives have been created, aiding mentorship and empowerment, and encouraging policy changes to address gender equity. Initiatives such as 'She Can Play' and 'Girls on the Run' aim to create a safe and supportive community for young female athletes to develop their skills and confidence. These programs are crucial for providing mentorship from older athletes and coaches, allowing for girls to see the value of their participation in sports and the impact it has on gender stereotypes. 'She Can Play' focuses on increasing female participation in sports that are traditionally dominated by men. 'Girls on the Run' is a program designed to help girls develop self-confidence through their sports, create a tight-knit community and a strong sense of belonging among teams. These programs are crucial for girls as it helps them both athletically and personally overcome challenges.

Ultimately, great progress has been made in the field of female participation and engagement in sports that are viewed as male dominated. The implementation of Civil Rights Laws such as Title IX continue to have everlasting effects on female participation at a collegiate level, inspiring girls of all ages around the world. Despite advancements made, the battle for equality in sports has yet to be won. Achieving concrete change will require continued activism, increased investment, and a shift in attitude on the part of society. With the next generation of female athletes pushing boundaries and shattering conventions, the future of sport is no longer male or female, rather, it is skill, hard work, and passion, regardless of gender.

Art For Action

service

The Fragile Art of Heritage: Why Traditional Crafts Matter

Yi Fei Wang, G9

Cultural heritage captures the development of human civilisation throughout history. It contains in itself the story about ‘us’, why ‘we’ exist and how ‘we’ made sense of everything around ‘us’ over centuries. A traditional craft is a distinctive expression of cultural heritage, unparalleled in all its forms. They are tangible expressions of living culture, outlined beliefs, and identity. Unfortunately, today, countless crafts—and the wisdom, techniques, and meanings behind them—are facing the threat of extinction.

An example of such a craft is Chinese paper cutting, an intricate form of this art that originated during the Han dynasty, roughly 1500 years ago. These paper cuttings are made from red paper which is believed to represent joy and good fortune. They have been used to adorn windows, walls, and doors during holidays and celebrations of all kinds. Symbols in each design include: Strength for dragons, abundance for fishes, and harmony and renewal for flowers.

Even though ethereal and fragile in form, each of these pieces carries immense cultural significance. Paper cutting is much more than an appealing piece—being an intricate decoration, which transforms everyday activity like community living into an artistic act of self-expression and spirituality, it serves as a language filled with cultural codes. This practice requires not only great artistic ability, but also a strong grasp of cultural perspectives, balance of forms, and meaning.

Bringing life to a plain piece of paper through cutting it requires creating an intricate and detailed design, which in itself is meditative. That being said, this practice is increasingly becoming rare. Most youngsters do not seek to understand the value of such skills in today’s frantic digitised world. There is an abundance of skilled craftsmen who have aged; without documentation their wisdom is lost. In contemporary society, traditional handmade crafts are not given enough attention or respect due to mass production and modernised

aesthetics. The loss of a craft like paper cutting is devastating because it abolishes a cultural identity, a way of living and understanding life. To resolve this, Art for Action aims to revive and reinterpret Chinese paper cutting through educational workshops, public installations, and collaborative exhibits. Our aim is to help people see the traditional form in a different modern light. It is important to not only appreciate the history of traditional art, but also the ability to design its future. With art such as paper cutting, it encourages the community to think about culture beyond its surface-level.

These practices are not relics of the past and instead are alive, evolving, and quite relevant. They give a glimpse into the lifestyles, values, and emotions of our ancestors: how they expressed hope and even their own identity.

They embody the treasures of any given culture and they reflect the fact that innovation and tradition are not mutually exclusive but are deeply intertwined. When people innovate, carve out new forms of expression and new ways of cultural dialogue and even preserve imaginative social change, we find their deep-rooted traditions and creative ingenuity fused together.

Cultural crafts’ strategic beauty remains unrevealed unless art is used as a medium for activism. Every cut made in a sheet of paper is indeed an expression carved in silence, waiting to speak out and reclaim its identity. It’s essential to aggrandise the subdued brilliance of heritage before it obscures, and in doing so unravel the epitomes of what defines us.

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