

ISSUE #6 | HT22

# IKHLAAS

*The OUISoc Magazine*

## PATTERNS

ESCAPING  
LIFE'S **LOCAL**  
**MAXIMA**

**GALAXY EVOLUTION**  
WITH THE  
JAMES WEBB

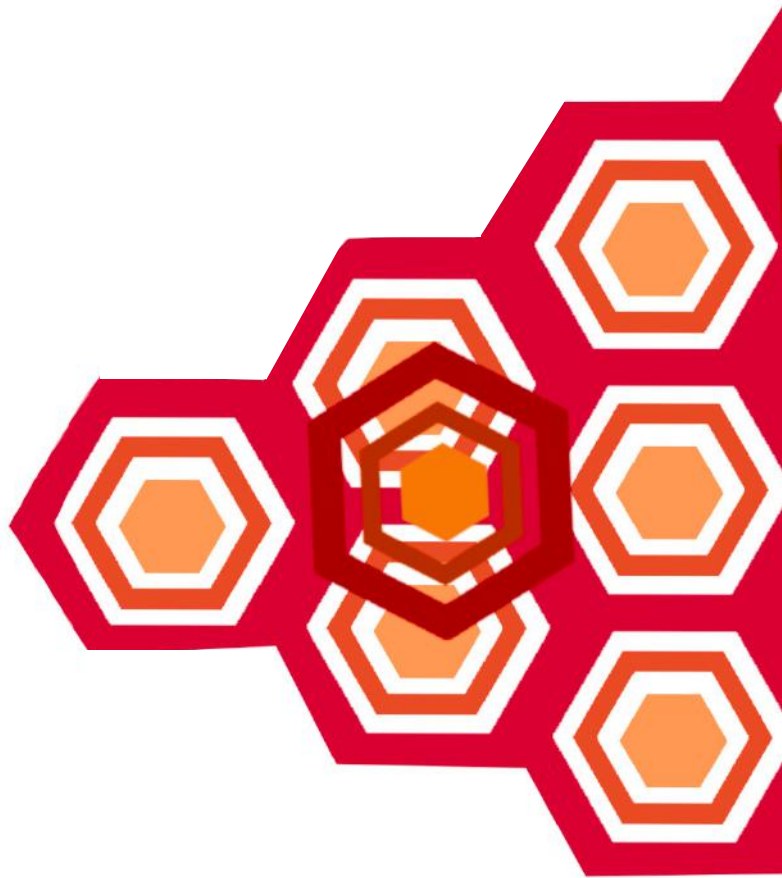
**QIRĀ' ĀT AND QURAN**  
RECITATION



OXFORD UNIVERSITY  
ISLAMIC SOCIETY

اِخْلَاصٌ  
*Ikhlaas*

[Noun] Sincerity





# Issue 6

*Patterns*

Artwork by  
Iqra Hussain

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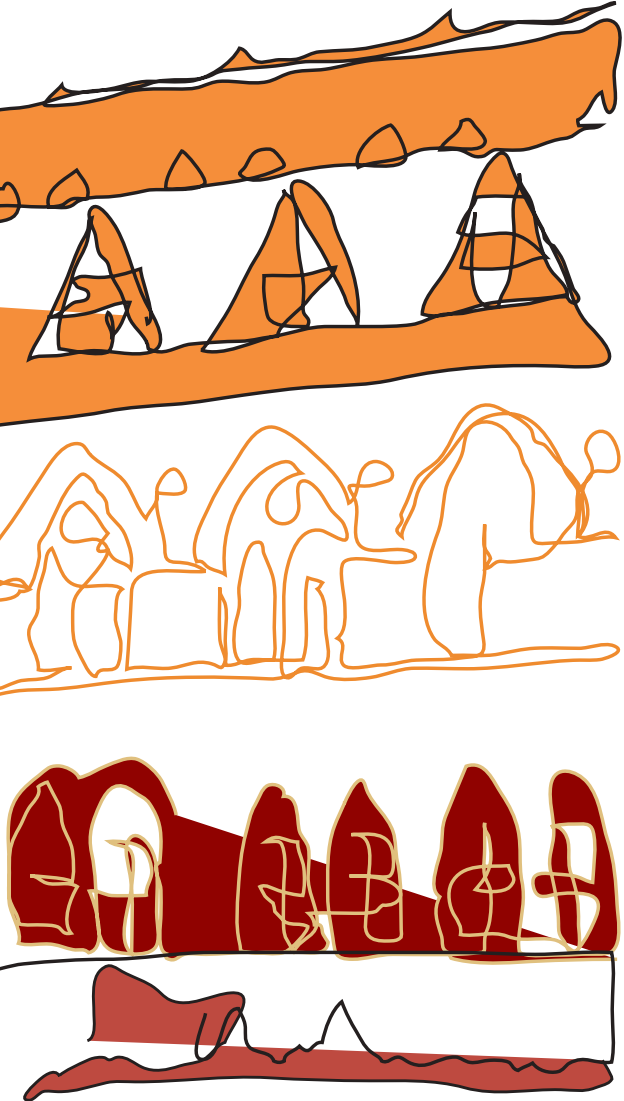
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IN THE NAME OF GOD,  
THE MOST GRACIOUS, THE MOST MERCIFUL

## FROM THE EDITOR

As-salaamu alaykum everyone! We're so pleased to bring you our team's last issue of Ikhlaas this Hilary. Within its scope, there's something to fit each reader; our writers take us through some of Oxford's secrets, the legacy of Islamic travel writing and the study of foreign galaxies. The Research Section, which first appeared three issues ago, is a perfect fit for the issue's theme and features cutting-edge research and fascinating reflections - but even here wry humour peeks out.

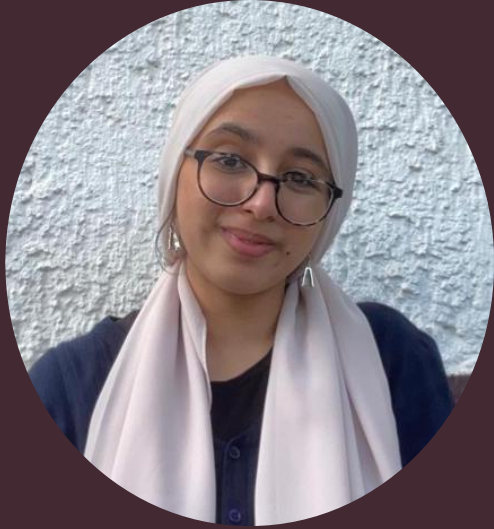
I'd like to think that one of the clearest patterns across this magazine is a shared sense of warmth. Whether it's in the Syrian Sisters' work, the account of empathy and eloquence in Tulaib Zafir's exploration of Qur'anic recitation, or in the openness of the personal testimonies, the sincerity in the writing is tuned to the warm nature of this community. I hope that while tracing the patterns in our lives, the work here stands to show this tightly-knit and open-armed community as it is.

To all our contributors: may you be rewarded for all your effort. To Noor, Lateef and Farabi; thank you for your help in all its forms, and for your tireless service to this community. And lastly, I have to thank my team: masha'Allah, Aisha's commitment, Siddiq's creativity and Amirah's diligence have really made these issues what they are, and together your good humour has made it a real pleasure to work on this project, alhamdulillah.

Insha'Allah your experience reading this issue is as warm as was ours putting it together.

Wa alaykum as-salaam,  
Tayiba Sulaiman

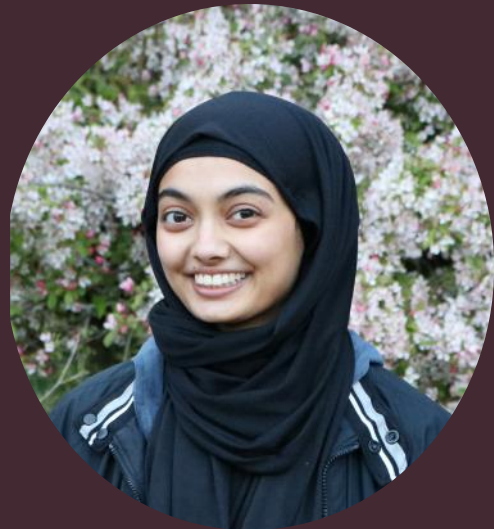
# MAGAZINE TEAM



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# Qirā'āt and Qur'an Recitation:

Patterns for Pedagogy

by Tulaib Zafir





Imagine yourself, for a moment, as a linguist in 8th century Arabia. The revelation of the Qur'an upon the Prophet ﷺ has granted the Arabic language immense theological significance, and as a result, there is a dire need to teach the language to new Muslims whose native language is not Arabic. The Prophet ﷺ taught his companions the Qur'an meticulously, and they, in turn, taught their students. However, because they were all already well-acquainted with the Arabic language, there was no need to delve into the subtleties of its phonetics. You and your 8th century colleagues have undertaken the task to document the sounds and features of the Arabic language as descriptively and precisely as possible. You notice that some letters share certain characteristics with others, while other pairs of letters are very dissimilar. Instead of describing each letter individually, you figure that it will be much more efficient to define various categories of sound features, and then place letters in those categories respectively. For example, you notice that some letters like *sīn*, *shīn*, *ṣād*, and *fā* all share the same feature of being voiceless, whereas other letters like *dhāl*, *zāy*, *ghayn* all begin with some voicing. Thus, you create categories for voiced and voiceless letters. You also notice that some letters are pronounced from the same place in the mouth, but differ in *how* they are pronounced, such as *thā* and *dhāl*. They are pronounced from the exact same spot in the mouth, but the former is voiceless, and the latter is voiced. This is essentially how the early linguists and scholars of the Qur'an approached documenting its pronunciation.

When I first began my formal studies in the science of *tajwīd* (the orthoepy, or correct pronunciation, of the Qur'an), I was rather intimidated by the amount of memorisation it entailed. My teacher tasked me with memorising all the rules verbatim as stated in certain books, and I was also expected to memorise hundreds of lines of didactic poetry on the subject. With all of the rote memorisation of the concepts, I was worried that the theory of the science would be lost on me. Fortunately, I soon realised that the founders of this science had structured it in such a way that much of *tajwīd* theory could be induced from recognising certain patterns of characteristics, as long as one's studies are supplemented with oral training. One of the most studied texts on the science of *tajwīd* is the *Muqaddima* of Ibn al-Jazarī (d. 1429/833), a brief didactic poem summarizing the major concepts of *tajwīd*. In it, he mentions certain pairs of categories of letter features in pairs which contrast with one another. He labels the categories and mentions the letters, but he does not explain the categories in detail in the poem. However, by looking at the way that the letters are categorised, a student is able to somewhat infer what a category entails. For example, *jīm*, *dāl*, *qāf*, *tā*, *bā*, *kāf* are some letters from the category known as *shidda*, whereas *zāy*, *sīn*, *zā*, *ghayn* are in the contrasting category known as *rakhāwa*. Without knowing the definitions of those terms, one can infer from the grouping of the letters themselves that the *shidda* category is for those letters in which the sound of the letter becomes trapped at its point of articulation and requires a release; on the other hand, the

*rakhāwa* category is for those letters in which the sound of the letter flows freely from its point of articulation. This is, of course, a gross oversimplification of concepts for the sake of brevity, as my aim in this article is not to provide a comprehensive overview of the science, but rather to demonstrate how a student may take advantage of patterns in order to improve their understanding of the theory.<sup>1</sup>

Once a teacher deems a student proficient in the science of *tajwīd*, they may allow that student to continue further studies in the science of *qirā'āt* (the variant readings of the Qur'an). Allah revealed the Qur'an in variant modes of recitation in order to accommodate for the various tribes, dialects, and the local demographics. The study of what remains of those variants is the study of *qirā'āt*, of which ten are famous. As we find in the reports of the companions, the Prophet ﷺ taught, allowed, and accepted Qur'an in a multitude of styles depending on the student.<sup>2</sup> Scholars agree that the Prophet ﷺ was the most eloquent of the Arabs, and was well-acquainted with their dialects and manners of speaking. We find a report in which the companion Ka'b b. 'Āṣim al-Ash'arī asked the Prophet ﷺ, "a min am-birrī am-siyam" fi am-safar?" (Is it from righteousness to fast during travel?), replacing the definite article [al-] with [am-] as found in some dialects of Arabic. Scholars mentioned that the Prophet ﷺ responded to the companion in his own dialect, demonstrating his eloquence. The scholars of Qur'an recitation, in a similar fashion to what they did with the science of *tajwīd*, structured the didactic material of this subject according to categories and patterns of Qur'anic words instead of going word by word, verse by verse, or reading

**As we find in the reports of the companions, the Prophet ﷺ taught, allowed, and accepted Qur'an in a multitude of styles depending on the student. Scholars agree that the Prophet ﷺ was the most eloquent of the Arabs, and was well-acquainted with their dialects and manners of speaking.**

by reading. For instance, words that fall upon a certain *wazn*, or morphological pattern, will be pronounced in different manners depending on the reading. An example of a *wazn* is the pattern *fu'lā*, upon which words such as *Mūsā* and *dunyā* fall. In these instances, the words are pronounced like *Mūsā* and *dunyā* in the readings of Warsh and Abū 'Amr, and are pronounced like *Mūsē* and *dunyē* in the readings of Ḥamza, al-Kisā'i, and Khalaf. A student is taught to recognise these patterns of words alongside the rules associated with them. Similarly, a student is taught to recognise different types of *madd* (elongation), *idghām* (assimilation), and other rules that follow consistent, recognisable patterns. The student then associates the different rules to the various readings.

**This raises a question: why establish patterns only to break them? Scholars have explained that the occurrence of anomalous instances in readings is indicative of and a proof for the strength of the oral tradition of the Qur'an.**

Inasmuch as there are patterns found in a subject, there are quite often a considerable amount of anomalies and exceptions to those patterns. Naturally, the same occurs in the Qur'anic sciences. The variant readings often have instances where they break their own patterns and go contrary to the rules that they have established. One example of this is found in the famous reading of *Hafṣ*, which is the most widespread and familiar reading today. The reading of *Hafṣ* contains no instances of the /ē/ vowel (which is a feature known as *imāla*) anywhere in the Qur'an except in one word: *majrēhā* in [11:41]. This is the only instance in which this reading breaks the pattern of /ā/ vowels. The other readings also have instances of established patterns and anomalous instances. This raises a question: why establish patterns only to break them? Scholars have explained that the occurrence of anomalous instances in readings is indicative of and a proof for the strength of the oral tradition of the Qur'an. It demonstrates that no one who transmitted the recitation of the Qur'an did so according

**As Zayd b. Thābit (RA) said, "Recitation of the Qur'an is a followed tradition; the latter takes it from the former."**

to their own whims and understanding, but rather meticulously preserved the oral tradition to the extent that even the rare anomalies, the wisdom of which Allah knows best, are preserved. Thus, despite the impressive consistency and coherence of the Qur'anic sciences, it is crucial that one learns them from teachers qualified in the tradition and

aware of the subtleties. As Zayd b. Thābit (RA) said, "Recitation of the Qur'an is a followed tradition; the latter takes it from the former."<sup>3</sup>

Footnotes:

1. For a further discussion on tajwid pedagogy and linguistics, see my article: Rethinking Tajwid Pedagogy in the English Medium. <https://tulaibzafir.medium.com/rethinking-tajw%C4%ABd-pedagogy-through-the-english-medium-3bacda260cd3?p=3bacda260cd3>.
2. For further reading on the history of the variant readings, see: The Origins of the Variant Readings of the Qur'an. Yaqeen Institute. 2020. <https://yaqeeninstitute.org/read/paper/the-origins-of-the-variant-readings-of-the-quran>.
3. Ibn al-Jazarī, *al-Nashr* Vol. 1 pg. 17.

## Tulaib Zafir

Tulaib Zafir graduated with a bachelor's degree in Philosophy from UC Berkeley, and is now a graduate student of the Qur'anic sciences at Harvard. He also currently teaches the ten minor readings of the Qu'ran (*al-qirā'āt al-'ashar al-ṣuḡhrā*).



[www.tulaibzafir.com](http://www.tulaibzafir.com)

# Student Blog

This term, we hear from Muscab on a close shave with Prelims, Sophie on her experiences as a disabled Muslim and Saqlain on his Blues cricket career experience.



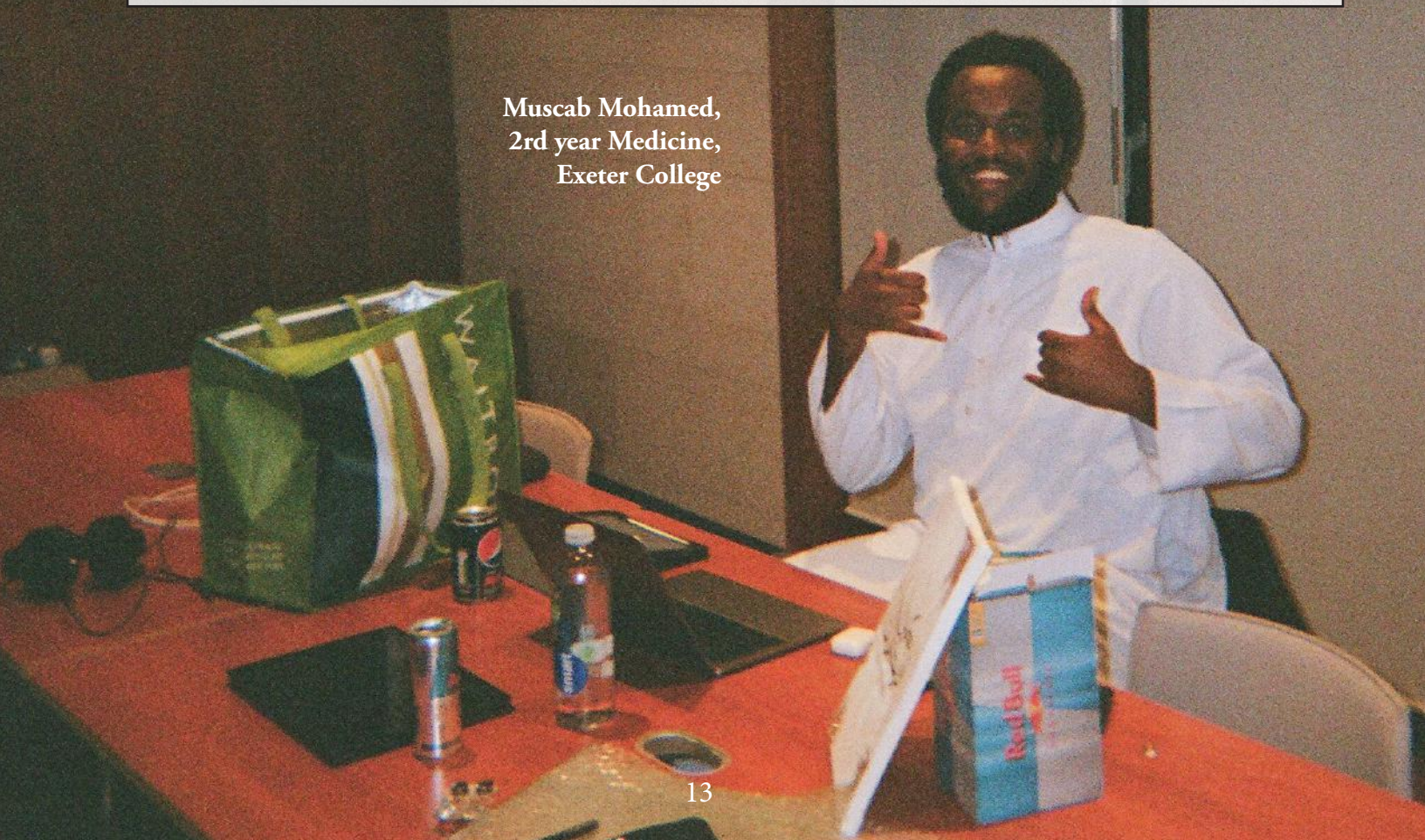
I entered Oxford uncertain of what this new experience would hold for me personally. Having practically been on sabbatical since the first lockdown, the process of rediscovering the rhythmic consistency that I needed to succeed at this university was tricky. With the unremitting onslaught of lectures highlighting the need to adjust quickly, and an added lack of structure due to all the content being online, I often sat there overwhelmed once the week's lectures and practicals were released at 9am on Monday morning and so I chose to spend my time in the depths of the online world, usually lost in the clutches of YouTube. Inevitably this made establishing a consistent pattern of work impossible, and boy did I live to regret that.

Perhaps no situation illustrates this better than exam season. Fortunately, Prelims were pencilled in for late Trinity and so the security of time meant that, for long periods of the year, I wasn't concerned about my exams at all. That held true until Trinity arrived and I sat there grossly underprepared, which absolutely terrified me. Fear began to kick in. I didn't want to disappoint myself and so I gradually began to increase the effort I put into my revision and my work in general. However, quite stupidly, I chose to do this at a detriment to myself. My daily schedule consisted of sleeping from 2pm until 7pm, which would usually require one of my neighbours to bang on my door to awake me from my slumber. I would

then proceed to work through the night, surviving off late night trips to kebab vans and countless cans of Red Bull. The irony of living such a dreadfully unhealthy lifestyle to revise medicine lectures is not lost on me at all, but those were the drastic measures I had to take to recover myself from the position I'd allowed myself to get to. This continued on through exam week itself and I vividly remember feeling exhausted in every way imaginable as I limped towards my final exam, wounded by the unsustainable lifestyle I'd been living. The crash was certain and sure enough I hibernated that night, sleeping for longer than I ever remember doing, interrupted only by an interlude for Fajr.

I recount those times as a warning so that others avoid falling into the pit that I did; discipline and routine are key to avoiding such troughs. One of my favourite quotes is from Eliud Kipchoge, the only man to ever run a marathon in under two hours. Whilst stood at a lectern speaking at the Oxford Union, he remarked 'Only the disciplined ones are free in life', going on to explain that these people aren't slaves to their moods and passions. Within that lies the truth; that sometimes success comes from the repetition of something unremarkable, and being disciplined in maintaining that. Consistency matters most, and I wish that was something I'd realised a year earlier than I did.

Muscab Mohamed,  
2nd year Medicine,  
Exeter College



I am a disabled Muslim. My faith and disability shape my life in ways most people can only imagine.

Throughout my life, there has been a distinct pattern to the ableism and Islamophobia I have experienced. I rarely see one without the other. I tell people I cannot separate my Islam from my disability, and it seems that nobody else can either. They are intertwined and integral to who I am.

Strangers regularly stop me in the street to tell me that if I prayed to Jesus (pbuh), he would cure me. I explain that my disability is not proof I pray to the wrong god. I also do not want or need to be cured; I want to live a free and full life exactly as I am. My existence is not a punishment. Atheists have asked me how I can believe in God given my condition. I want people to know that my life is not so terrible that my sheer existence proves God doesn't exist. My life can be extremely challenging, but that is for me to own, not for others to appropriate in religious debates.

My disability is beautiful, intended by God. Learning who I am as a disabled person has strengthened my faith, forced me to understand my religion in a way I wouldn't have done otherwise. I am disabled, and being disabled is not a bad thing.

I see patterns in the ableism I have experienced from Islamic scholars too. Whenever I seek religious advice, I am told the same thing: "Islam's approach to disability is very simple." But disability is not simple — it is complex, fluctuating and diverse. Islam is flexible, and understands God's mercy, so there is room in our faith to accommodate this complexity. But a hospital imam once told me that I would go to hell for adapting my prayers. He said that only paralysis justifies adjustments — if you can move your limbs you must pray "correctly". He dismissed my concerns about pain, weakness and safety. I have been told that to say praying like this makes my symptoms worse is a grave sin, even though it is an honest reflection of my reality.

These imams' views are not a true part of the Islam I know and love. Allah would not create me with disabilities, and then punish me for living with them. For me, being a disabled Muslim means going against such thinly-veiled ableism — it means referring back to the Quran's messages of mercy, and trusting that I know God more intimately. It has taken time to find the true, sincere belief that Allah embraces me and will not hurt me. I feel so blessed to know who He is.

In Islam I have found a community of people who love me for who I am. There are many friends in the prayer room who hold space for me even when I am absent. Islam is a great unifier — we come from all walks of life, meet in the mosque and support each other. "Sister" defines me just as much as "disabled" does, and I am so, so proud of that.

**Sophie Thomas,**  
2nd year Biomedicine,  
St Edmund's Hall





As a child, I had been exceptional at almost everything I tried, from academics, public speaking to even competing in the 2012 National Youth Olympics as a table tennis player. I had never known a true challenge up until the age of 13; before this, life was straightforward — or at worst required effort followed by a guaranteed reward. But life has a way of humbling you sooner or later, and for me, it happened when I went to boarding school and tried cricket for the first time.

The son of a taxi driver sharing a dormitory with the son of a Ukrainian billionaire? Suffice to say that not everything was smooth sailing. But in no other aspect of my experience was this disparity in means as apparent as in cricket. I was overweight and late to the party - most people start playing at 5 or 6. I'm not sure what exactly possessed me to desire excellence in something I was so bad at, but nothing before or since has caused me so much grief, or brought me so much happiness.

I have tried to "retire" at least once every year since I have started playing. I have tried all manner of things to counter my fear of failure - visualisation, meditation - the list goes on, but nothing worked for long. Why did this most trivial of things - a game - consume me? Maybe the confidence I had lost as an optimistic boy had never truly been recovered.

To the onlooker I've always seemed ridiculous, underselling my ability. For reference, I'm now a member of the Oxford 1st team tour to Barbados despite having "retired" twice in the last year. A walking paradox. But I would like to share three

things that help me to keep going. All are rooted in my faith (which has undergone a resurgence at Oxford thanks to many members of the Islamic society): ability, control and hope.

With regards to ability, passages such as "Allah does not charge a soul except [with that within] its capacity." [2:286] inspire me to believe that Allah has given me the ability to enjoy cricket with the knowledge that I'll be able to face the challenges that come with it. Next is control; what is it that I control? I control my efforts but not their outcomes. This is beautifully encompassed in verses such as "I have no power to bring a harm or a benefit to myself, except what Allah wills." [10:49]. And finally — perhaps most importantly — is hope. The hope that my hard work will reap its reward eventually. I recall verses such as "After a difficulty, Allah will soon grant relief." [65:7]. So hopefully some runs are right around the corner.

So if you have ever loved something like I have loved cricket (I pray you haven't), and it has at times had a hold on you and left you hopeless and powerless, maybe see if any of these tenets help you. And if not, find me around the PR and tell me what does work for you, because my struggle continues as well...

**Saqlain Choudhary,**  
**DPhil Condensed**  
**Matter Physics**



# Travel Writing:

## *A Spirit of Discovery*

Samiha Mohsen





To us the whole world's open wide,  
And all that's in it of Islam and non-Islam.  
We pass our summers on the snow,  
And winter in the land of ripening dates.<sup>1</sup>

Abū Dulaf Mis'ar ibn Muhalhil commenting on the nature of exploration, *circa* mid-10th century.

Islamic history is sprawling with influential figures. From caliphs to the *muhaddithāt* (female hadith scholars), we have been blessed with a rich and culturally diverse set of role models alhamdulillah, whose stories are still with us today.<sup>2</sup> From them, we learn a substantial amount about how varied Muslim conduct through time has been. Yet, there is one aspect of our history that often gets neglected but which has nonetheless been integral to our rich tradition — travel. In the UK alone in 2019, before COVID-19 changed our relationship with the outside world, 93.1 million people went overseas, spending an impressive £62.3 billion, primarily for leisure.<sup>3</sup> So, it's safe to say travelling is an important part of our lives. We are exposed to it constantly, whether that be through conversations about summer plans, on the TV or following influencers on social media.

Why is this relevant? Given how pronounced travel is in today's day and age, it is easy to assume trends in the distant (or not-so-distant) past were entirely dissimilar. To some extent, they were. Of course, our ancestors did not have access to EasyJet.<sup>4</sup> However, we often miss how steeped our tradition is in exploration, such that chroniclers, diplomats, and students, amongst others, would traverse lands to gain

wisdom, trade, skills, and much more. Today, we have been blessed with some of those histories through travel accounts. Through these mediums, we will discuss the pattern of exploration through time and how faith was integral to them.

Our travellers scoured the world. Geographer and poet Ibn Jubayr (d. 1217) journeyed from Granada across the Mediterranean, commenting on the religiously polynomial culture of re-Christianised Sicily along the way, to the Latin kingdom of Jerusalem. Ibn Battūtah (d. 1369), who traversed more land than any other in the whole of pre-modernity, left Tangier and ventured as far as China and Mogadishu.<sup>5,6</sup> Notably, Ibn Faḍlān's work (*circa* 921-2) expounds on a diplomatic mission from Baghdad to the northernmost points of the Volga River in modern-day Russia; his work is hailed as the earliest surviving first-person travel narrative in Arabic.<sup>7</sup> The distance of these journeys is impressive, inscribing the names mentioned above into the annals of history forevermore.

For these travellers, questions about topography and customs made their way into the imagination, and curiosity abounded. However, underlying their interest was a

Footnotes:

1. Al- Sirāfi', Abu Zayde, et al. Two Arabic Travel Books : Accounts of China and India and Mission to the Volga. 2014 p.ix.
2. See Nadwī, Muḥammad Akram. Al-Muḥaddithāt : the Women Scholars in Islam. 2007.
3. <https://www.ons.gov.uk/peoplepopulationandcommunity/leisureandtourism/articles/traveltrends/2019#uk-residents-visits-and-spend-abroad>.
4. They turn 27 (only) this March: <https://corporate.easyjet.com/about/our-journey>.
5. 117,000 km: an impressive distance even for today's standards.
6. Davis, Natalie Zemon. Trickster Travels : a Sixteenth-Century Muslim between Worlds. 2008 p.102.
7. Al- Sirāfi', Abu Zayde, et al. Two Arabic Travel Books p.ix.

motivating factor — their faith. As acclaimed historian Natalie Zemon Davies adeptly puts it, “travel had become a path to discovery for the Muslim scholar — discovery not of something considered foreign and exotic but of the character and meaning of Islam itself.”<sup>8</sup> Implied is the idea that exploration is essentially Islamic. The great scholar, Imam Shafi'i (d. 820) agreed with these sentiments, as demonstrated in some lines of poetry which read:

There is no rest in residence for a person of culture and intellect,  
So travel and leave where you are residing!  
Travel! You will find a replacement for what you have left.  
And strive! The sweetness of life is in striving!<sup>9</sup>

So, travel became a means for Muslims to access *culture* and *intellect* by acquainting themselves with customs and attitudes beyond their own. Interestingly, travel is often associated with hardship and grit in our tradition: hence the shari' expiations for whoever undertakes a journey.<sup>10</sup> Thus, there is an undeniable reverence for "the traveller". The 8th century rise in the availability of paper meant an increase in recording and sharing work, leading to what we would now regard as interdisciplinary intellectual investigations.<sup>11</sup> Therefore, the preoccupation with understanding the world through journeying becomes a literary exercise rooted in Islamic consciousness.

**There is no rest in residence for a person of culture and intellect,  
So travel and leave where you are residing!  
Travel! You will find a replacement for what you have left.  
And strive! The sweetness of life is in striving!<sup>9</sup>**

By covering various topics, ranging from ceremonial customs on burials or marriage, to royal etiquette, diet, and even in one instance, voluntary mass suicides at the death of a king, accounts established the importance of experiencing the full extent of cultural differences.<sup>12</sup> In Abū Zayd al-Sirāfi's (*circa* 915-6) account of China, he discusses political culture through the use of the *darā*, a bell connecting the ruler to all his citizens. It was a standard system where a bell hung above the ruler's head to alert him to grievances. Anyone in the city could slightly jilt a cord from which it was connected, which passed over the highway for easy access, to gain an audience with the ruler.<sup>13</sup> In addition, he comments upon medicinal practices, noting how there was a public fixed stone tablet of 10 cubits inscribed with cures for diseases, and any ill citizen could access public funds to pay for treatment.<sup>14</sup> These practices are elucidated in much detail alongside others, such as those surrounding clothing and education. Chinese public dress is remarked to be similar to the Arabs, “long tunics and belts,” while in India, they would, “wear two waist cloths and adorn themselves with bangles of gold and jewels, the men and the women.”<sup>15</sup> Also, the scholarly custom in

India was to have circles where students produce a written account of lectures on their prophets and laws from legal codes — *sarandib*.<sup>16</sup>

Footnotes:

8. Davis, Natalie Zemon. *Trickster Travels* p.102.
9. <https://waqfeya.net/book.php?bid=3302>, p.25.
10. Of course, this will have stipulations.
11. Frankopan, Peter. *The Silk Roads : a New History of the World*. 2016 p.95.
12. Al- Sirāfi', Abu Zayde, et al. *Two Arabic Travel Books* p.x.
13. Al- Sirāfi', Abu Zayde, et al. *Two Arabic Travel Books* p.51.
14. Al- Sirāfi', Abu Zayde, et al. *Two Arabic Travel Books* p.55.
15. Al- Sirāfi', Abu Zayde, et al. *Two Arabic Travel Books* p.65.
16. Al- Sirāfi', Abu Zayde, et al. *Two Arabic Travel Books* p.115.



Significantly, writers also commented on Muslim lands, changing attitudes towards Islamic societies. A critical aspect these accounts shed light on is women and their lives. Generally, Western beliefs about Muslim women were unnuanced and stereotypically unempowering. For instance, in 16<sup>th</sup> century popular literature, Saracen Floripas serves as a character in Elijah ben Asher's *Fierabras* who was only noteworthy for her love of a Christian knight.<sup>17</sup> In contrast, accounts written by travellers of Muslim origin complicated these narratives. One such was authored by the hugely controversial yet widely studied al Hassan al-Wazzan, Leo Africanus.<sup>18</sup> His writing mentioned women's roles in large-scale commerce and autonomy in using their dowry for trade or administering charitable endowments.<sup>19</sup>

Observations were not limited to customs. Interestingly, there are passages on supernatural events. Ibn Faḍlān reports two fully armed forces engaged in a battle for an hour before they both just disappeared — the “spectral army”.<sup>20</sup> According to Bulghar folktale, he is told that these are armies of the jinn, believers and unbelievers, who are in a state of constant warfare. In another vein, natural landscapes were frequently commented on. Ibn Faḍlān's commentary goes from meteorological displays

**“Glory be to the One Who created [all things] in pairs— [be it] what the earth produces, their genders, or what they do not know!” [36:36].**

to local flora, and even considers how the night and daytime hours in different regions affect prayer calendars.<sup>22</sup> Critically, links are made between natural processes and the Majesty of God. In Al-Sīrāfi's account, he quotes the

Qur'anic verse, “Glory be to the One Who created all [things in] pairs — [be it] what the earth produces, their genders, or what they do not know!” [36:36].<sup>23</sup> This is followed by a description of that which he previously had

no knowledge; he writes, “The oysters contain nothing but a piece of pinkish flesh, like a tongue, attached to the base of their shells, with neither bone nor sinew and having no vein in it.”<sup>24</sup> His preoccupation with oysters continues in the text. Thus, this erudition demonstrates how complexity found in nature is directly linked to God's creation and His Power above all else to fashion the unimaginable.

So, what then is the significance of these accounts? For one, they functioned as invaluable ethnographic surveys to gain information about pre-modern cultures and societies. However, implicit in them is a sense of wonder about the world around them. No doubt, each account is situated in its context. Yet, a unitary theme is their attempts to capture the reality of difference. Crucially, they root their findings in a reverence for the religion that enabled and encouraged them to access worlds previously unknown.

#### Footnotes:

17. Davis, Natalie Zemon. *Trickster Travels* p.219.
18. So much so he had a colloquium dedicated to him in 2003.
19. Davis, Natalie Zemon. *Trickster Travels* p.220.
20. The contemporary Islamic intellectual climate was empiricist, so he remained sceptical despite the Bulghar King's testament to its veracity. Scholars in this case regard the incident as an attempt to politically manipulate Ibn Faḍlān.
21. Montgomery, James E. “Travelling Autopsies: Ibn Faḍlān and the Bulghārī.” p.13.
22. Montgomery, James E. “Travelling Autopsies: Ibn Faḍlān and the Bulghārī.” *Middle Eastern Literatures*, vol. 7, no. 1, 2004, p.6.
23. Surah Yaseen: 36. Muhammad Taqi-ud-Din al-Hilali & Muhammad Muhsin Khan's translation used.
24. Al-Sīrāfi, Abu Zayde, et al. *Two Arabic Travel Books* p.129.

The image features a complex, repeating geometric pattern in shades of grey, white, and brown. The pattern consists of interlocking lines forming various polygons, primarily hexagons and pentagons, creating a tessellated effect. The text 'Welfare &' is overlaid in a clean, white, sans-serif font. The word 'Welfare' is positioned on the left side of the upper half, and the ampersand '&' is on the right side. The background also includes horizontal bands of different geometric motifs, such as a repeating zig-zag or interlocking line pattern, and a band with a repeating diamond or chevron shape at the top and bottom.

# Welfare &



# Lifestyle

In this welfare section, Faseeha walks us through what routines we can build to keep a sense of balance in our everyday lives, Mahira shows us a handy sewing pattern in case you're in need of a new mask, Sohaib takes us on a tour of unappreciated Oxford spots, and Shorif teaches us a strategy to finally show procrastination the door.

# Patterns of Life: Routines



Routines have a habit of sounding awfully dull. However, they are simply another aspect to human patterns of behaviour, another thread woven together to create the fabric of life. Left alone, we would happily daydream the day away, procrastinate perpetually or bounce from one task to the next without achieving any sense of accomplishment. Routines are a powerful tool we can adopt to create structure in our day and to meet our goals more efficiently. With their help, no longer absorbed in menial tasks, our minds can be free to deliberate, ruminate and create.

Putting a routine together feels almost like putting your life together. A daunting task perhaps – or perhaps not. We can begin by addressing the fundamentals: food, exercise, *Salah* and sleep. Simple as they may sound, to maintain them all day in and day out is no small feat. Eat three healthy meals at appropriate times every day and keep yourself hydrated. Exercise to raise your heartbeat for half an hour a day. Sleep a solid 8 hours and practice good sleep hygiene. And *Salah*: in the same way we tend to our mind and body, *Salah* provides daily nourishment for the soul. Begin and end your day with *Salah* and bring barakah into your time. It is the foundation upon which all else lies. Now, these four things are all for your own personal wellbeing,

but paradoxically – almost as self-sabotage – under pressure, they are the first we sacrifice.

Next (inescapably) is work. As term grinds us down, we can be inundated with appointments, commitments, and deadlines. These all belong in a paper diary or online calendar, not roaming freely in your mind. Our brains are brilliant at processing information but far less skilled at storing it. Whether it's from reading, lectures,

talks or inspired random thoughts, collate the information in a note-taking app like Evernote or Notion.

It will clear the mind for more meaningful reflections. If you are feeling overwhelmed, writing can be quite cathartic. Ideas that feel larger in your mind are somehow smaller and more manageable as words on paper. Use productivity tools such as the Eisenhower Matrix to prioritise your task list and schedule them into your timetable for that day, week or month as required. Likewise, understanding your work style is

immensely useful. Are you an early bird? A night owl? Or a mix: working well in the morning, falling into a food coma in the afternoon, and then finding your mind buzzing at night? Alter your schedule according to how you work best. Being in academia, you are not so rigidly bound by the conventional nine-to-five, so take full advantage of this! Note: if one day you are just unable to work, then don't. Go for a walk; meet people. A break may be just what you need.





This brings us nicely onto leisure. In the same way as you need the villain in a story to identify the hero, you need satisfying work in order to truly enjoy leisure. Without work, you most likely cannot afford leisure. Without leisure, you can work neither effectively nor efficiently. Leisure, relaxation, and socialising are all part of a normal healthy lifestyle. One need not neglect them nor feel guilty indulging in them. Although it may take time or trial and error, finding your balance between work and leisure is a life-long skill. As you do with your work, choose your form of leisure wisely. Read a book or listen to a podcast over watching Netflix. Choose to go on a hike or bike ride with a friend instead of meeting for just dinner. Take up a new sport, learn a new language, visit a new place. It will be more refreshing and far more fulfilling. Remember: in reality, there is no ideal work-life balance. With a deadline looming, your work may unavoidably take 90% of your time. Similarly, commitments with family or with a society may overtake another time. Requiring flexibility and adaptability, these shifting balances are harder to navigate but allows for more varied days. And variety keeps

life interesting.

Inevitably, just as there is no perfect work-life balance, there is no perfect routine. As time goes on, you may outgrow one routine. It may not be stimulating anymore to work in the same library, to sit in the same coffee shop. Alternatively, it may have served its purpose, and now a new pattern is needed to match a new goal. To realise if change is needed requires reflection. Reflect every once in a while on whether you are happy with the balance you currently have. Do you spend enough time with your family? By yourself? Are you learning new things or do you feel static? Is your degree or career progressing as you would like? If not, why not? And can you change something in your life, or incorporate something into your routine to help?



Routines help with goals and, in the end, what is our goal here? Ultimately, it is to be healthy in mind, body and soul. It is to complete work or life commitments proficiently and leave time for the things that matter to you – whether it be food, family, friends, travelling, painting or poetry. Or making it to Q-club because you finally finished your essay early. The



**Faseeha Ayaz,  
DPhil Cardiovascular  
Science**

**Artwork by  
Amy Russell**

# ALL TIED UP:

## MASKS

A new covid variant calls for a brand-new mask, so this time around, why not make your own custom hand-sewn mask instead? You will need: a needle, thread, fabric, and a piece of elastic.

1. Fabric dimensions:  
26x26cm for a small mask  
28x28cm for a medium mask  
30x30cm for a large mask



2. Turn the fabric around and fold it in half, then in half again.



3. Fold the fabric as shown and put a mark on the corner.



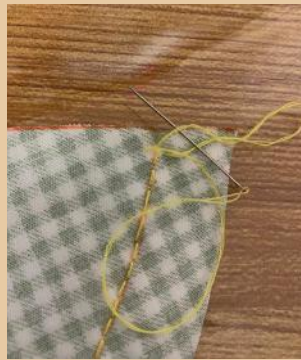
4. Continue folding a triangle of the fabric all the way round, marking as you go. Join up all the dots, and cut along the arc.



5. When you have reached the end of your fabric, thread a stitch perpendicular to the direction you have been sewing but don't pull the thread all the way out.



6. Instead put the needle through the loop and then pull through. Repeat this a few times.



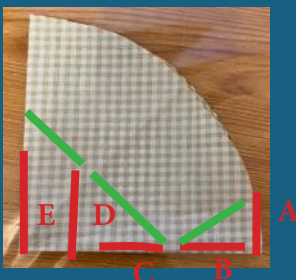
7. This will make sure that your stitches are secured.



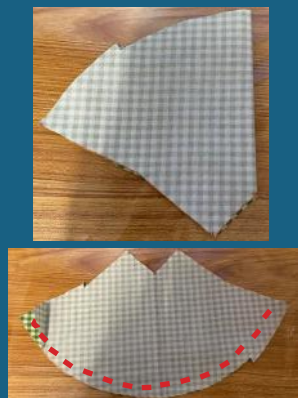
8. Then just cut the thread!



9. Mark the fabric along the red and green lines, then cut along the green lines.  
Small: A+B 2cm, C 4cm, D 3cm, E 4.5cm  
Medium: A+B 2.5cm, C 4.5cm, D 3.5cm, E 5cm  
Large: A+B 3cm, C 5cm, D 4cm, E 5.5cm



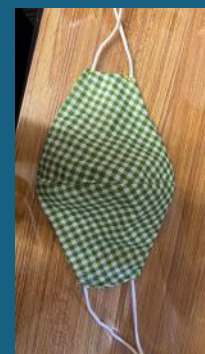
10. Open it up and then sew along the bottom (along dashed lines).



11. Open it up and fold in the other direction, joining point A to point B. Sew along the green dashed line. The two sides marked by the blue line should still be left open. After sewing along the green line you can turn the inside-out mask the right way round through an open end.



12. Next fold in the two open sides, place two ends of a piece of elastic inside them and sew them closed.





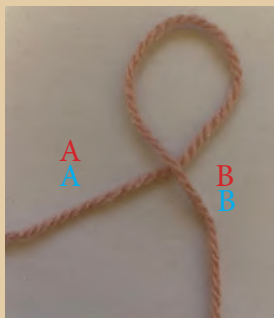
# TWO TUTORIALS

Mahira Muhsanat,  
2nd year Engineering Science,  
St John's College

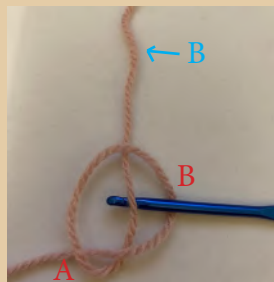
A crochet square is one of the most versatile things to make; they're quick, easy, and joined together they can make scarves, blankets, hats and much more! You will need: yarn and a 4mm crochet hook.

# CROCHET

1. Make a loop that looks like this (slip-knot).



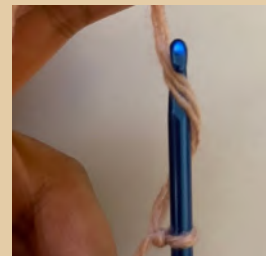
2. Next, place end B under the loop as shown and put the crochet hook over the loop, then under B.



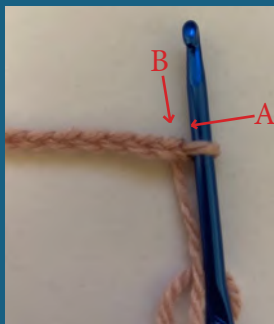
3. Hold A and B together and pull the crochet hook through.



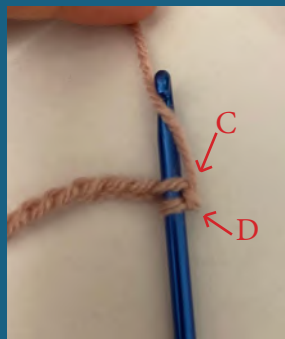
4. To chain, loop the yarn around the hook as shown. Next, pull the crochet hook through the first slip knot. Then repeat 21 times.



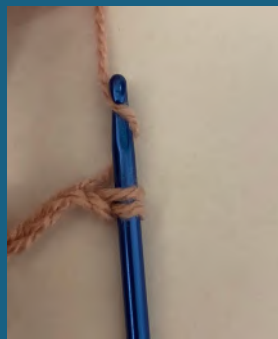
5. After the 21st chain, chain one extra stitch at the end so that you now have 22. Next, insert your hook into stitch B, which is the second stitch from the hook.



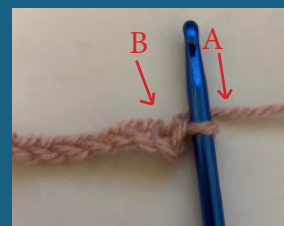
6. Next, wrap your yarn around the hook like you did when chaining - this step is called 'yarning over'. Pull the hook through stitch C only.



7. It should then look like this. Again, wrap your yarn around the hook like before, and this time pull through both stitches.



8. You've now moved onto the second row of your work. To carry on, insert your hook into the next stitch (labelled B), and then yarn over as you did before. Pull through the first stitch only, then yarn over again, and pull through both stitches. Repeat till you reach the end of the chain.



9. When you reach the end, chain one extra stitch. It should look like a braid at the top. Next, insert your hook into the second stitch from the hook, but this time go through the whole braid rather than just the top half of it.



10. Yarn over and pull through the first stitch (which looks like 2 so be careful), yarn over again and pull through both stitches. Repeat till the end of the row, then chain one extra again and carry on from the second stitch, working away from the hook.



11. Repeat until you have a square. To finish off, cut the yarn and pull it through the hook, then pull it tight.



12. Final product!



# Re-routing: Oxford's Hidden Gems

In a city full of iconic landmarks and student life, we'd all find it easy to compile a list of all the wonderful things to do and see. But this list of the underappreciated gems in Oxford draws attention to parts of the city that don't feature as stops in those big red tourist buses or get captured for a postcard. Some of these spots are in plain sight, whilst others are a bit more obscure – but rest assured, all serve as the perfect spots for a good gander. Whether you're hoping to explore Oxford more or find a different route to your nearest Tesco, this is the guide for you.

Beginning the tour, we have the Hertford College MCR, the Octagon. Dating to the sixteenth century, the building has been used as a house, a shop, and even a church where students would stop to pray on their way to Examination Schools. Cute. Today, it is a Grade II listed building adorned with Gothic spirelets and battlements. At the side of the Octagon, you'll find an original stone carving of the Annunciation; something Old English tutors will love to tell you all about in their lectures – good luck. With its charming oddities, the Octagon holds up against its much more famous neighbours: the Bridge of Sighs and the Bodleian library.

Overlooked by the aesthetic titan that is the Rad Cam, you'll find the supposed inspiration for C.S Lewis' *Chronicles of Narnia*. Down by St. Mary's passage, fans of the novel (and more importantly, the films) can get a glimpse at the rumoured inspirations for the iconic Narnian characters. It is said that Lewis stepped out into the Square through the St Mary's Passage door of Brasenose College and began to admire the intricate carving of a lion, the twin statues of a faun playing the flute, and the streetlamp in the snow close to the square - sowing the seeds of Aslan, Mr Tumnus and the entrance to Narnia. Even those unfamiliar with the classic story can revel in the wonderful ways Oxford nurtures the imagination.





Oxford is remarked for its cobblestone alleys, and some of the most idyllic displays of this ancient feature are away from the hustle and bustle of the city, nestled between the High Street and Christchurch Meadows. The High Street itself offers a remarkable range of architecture: from the sandstone classical facade of Queen's College to the colourful Georgian inspired private buildings, battling the strains of consumerism at their feet. A stone's throw away from the racks of Oxford hoodies lie alleys such as Merton Grove: a theatrical entrance into Christchurch Meadows. Squeezed between Merton Chapel and Corpus Christi, the Grove gives the enchanting feeling of walking through a trellis tunnel. Head to the meadows through the Grove to live out your fairycore dreams.

Just beyond Christ Church Meadows is Folly Bridge. The bridge itself is Grade II listed and was apparently built to allow oxen to cross the ford which formed because of the Isis river. This part of South Oxford has some of the most unique structures in the city; it's mostly composed of small islands separated by the river. The river bank is lined with mysterious and peculiar buildings from the early twentieth century like Caudwell Castle, Grandpont House and Folly Bridge House. Walking along the bridge towards South Oxford gives the brief illusion of Oxford as a canal city, with the boathouses

and canal boats visible from one side and homes which more resemble mini forts dotted amongst towering greenery on the islands on the other. The area is also home to great walking and running paths on both sides of the bridge - perfect for your daily dose of welfare. Folly Bridge is a great escape from the traditional Oxford architecture and offers views and walking paths unique to the city.

Crossing the bridge over the Thames river in Uni Parks leads onto the outskirts of the countryside, with a lengthy walking route next to the Cherwell where you can even get a riverside glimpse of Wolfson College. Yes. It's real. Perfect for immersing yourself in the wilder nature spots in the city (that are not Port Meadows!) and for getting that primary school sense of adventure back. All it takes is one break away from the pattern of the routes you've been round a thousand times.

That is the end of the things-you-may-or-may-not-have-missed-in-Oxford tour. This is by no means an exhaustive list. Living in a smaller city gives the opportunity to see quite a lot of it, and admire its quirky features as it becomes more familiar. If anything, I hope this tour serves as encouragement to walk a different way home and find your own special gems in Oxford that intrigue, excite, relax, or amuse you - for any reason whatsoever.

The Octagon  
by Amy Russell

Sohaib Hassan,  
2nd year English,  
Hertford College

# The Power of Habits

Habits are the primary drivers of action in daily life and if actions define a person, it follows that their habits do too, and to a far greater extent. The Prophet ﷺ said, “The best deeds are those done regularly even if they are few.” Here, I have summarised the key steps in building good habits that I have found most useful in my own life. For further details, I would recommend *Atomic Habits* by James Clear, a must read for anyone interested in this topic.

Simply aiming to become something great one day is unhelpful. Picturing yourself as wham as Zain or as tall as Saad is unlikely to produce any results. In the case of Saad, I’m sorry to say it can’t be helped. However, in the case of Zain, you’re in luck. It is far more effective to be the person you imagine. Rather than thinking “*I will be really fit, one day*”, tell yourself, “I am someone who values fitness.” Then, when it comes to making choices, the thought process becomes, “as a fit person, I make sure to balance my calorie intake with my maintenance.” This applies to whatever habit you are trying to build or break; “since I’m a great student, I make sure to watch lectures in the timetabled slots”, “as a health fanatic, I’m diligent in getting my eight hours of sleep” and “as the social butterfly of my friend

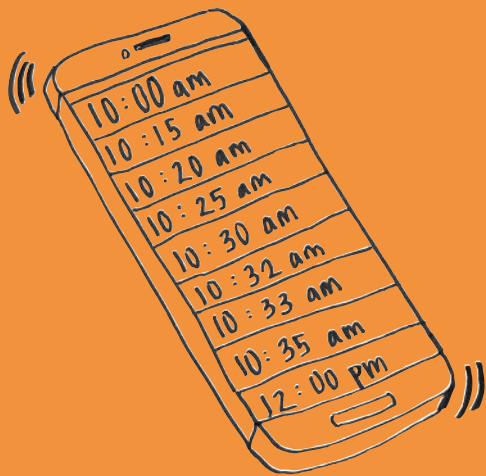
group, I make sure to organise motives” are just some examples.

This mindset relates directly back to our deen. It is a grave mistake to tell yourself you’re a sinner and a bad Muslim. Rather, it is imperative to assume you are a good Muslim that has made mistakes, major or minor, and since you are a good Muslim, you make sure to take steps that will stop those sins through seeking forgiveness and making *du’a*.

Now, once you’ve adjusted your mindset, what do you actually do? Something very important to consider is that winners and losers both have the same goals. Zain and I both had the aim of getting buff. It didn’t work out for me, clearly. Therefore, it is obvious to see that setting goals alone is ineffective in producing results. Rather, what is far more effective is devising systems that make it impossible to fail. For example, rather than thinking, “I will stop being a slob and eat more healthily,” think, “I will make sure to have a vegetable-based lunch from place X six days a week.” Being specific and having a very easily achievable action is far more likely to yield results.



Artwork by  
Maryam Kazimi



## The conundrum of motivation

No matter how cleverly a system is planned, it is crucial to address the Zain in the room; that is, not feeling like it when the time comes to act. Motivation is a fickle thing and relying on it proves to be foolish. A quote from *Atomic Habits* that really stuck with me is, “You do not rise to the level of your goals; you fall to the level of your systems.” This has been proven time and time again in my experience of trying to brute-force my way into a new lifestyle.

The following are some steps countless people have found immensely useful in planning out their systems.

### 1 Make it obvious

Making it obvious simply entails making whatever you want to do visible. A great example is in trying to eat more fruit. People have found it helps greatly to leave them in the centre of their living space rather than tucked away in the fridge. That way, you can just grab an apple on the way out. Other ways include setting a repeated alarm reminding you to prepare to go to bed.

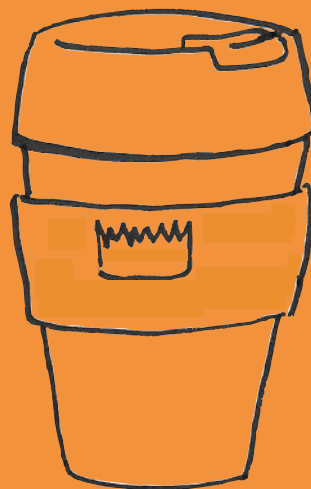
### 2 Make it attractive

Making it attractive means making whatever you want to do seem genuinely enticing. Something very important to remember is that this needs to be the case not just for the long term, but the short term as well. Naturally, we value instant gratification over delayed gratification. A great tactic is to pair something you really want to do with something you have to do. For example, going to the gym could mean allowing yourself to have a coffee at a nice café afterwards. That way, the dopamine released in anticipation works in your favour.

### 3 Make it easy

Making it easy just means minimising the friction in doing something good. A great way to do this is to follow up an action you already do regularly such as going to the library, with the habit in question, say going to the gym. This, combined with tactics to make the habit attractive, can be a potent force driving you to do the things you need to consistently, ultimately leading you to achieve the goals that you (didn't) set.

Now, wipe away that solemn look (and the burger sauce) and start planning the systems that will build new habits and transform your life.



**Shorif Haque,**  
**1st year Engineering Science,**  
**Lady Margaret Hall**

# Syrian Sisters: A Self-Led Community

**Nuha Abdo works with the University of Oxford's Multaka Museums project, and with the Refugee Studies Centre on projects exploring refugee integration, as well as being a trustee at Refugee Resource. Here, she reflects on her experiences setting up the community group Syrian Sisters.**

I came to the UK in 2016, and founded Syrian Sisters in October of that year. I come from a background of social workers, working with international organisations in Syria, and even worked with the UN for some years before I came here, helping refugees from different countries, and learning how to give good support. So I had some experience I could use here. Having experienced being a refugee and having young children myself has taught me a lot.

In East Oxford, I found that there was a large number of women seeking a safe place to meet. Slowly, we started to see what activities they needed. I remember the first project we did was with Oxford University. We ran English classes for women with children. All these women were here, wanting to learn English, but there was no college or class which they could attend with their babies, so the uni kindly offered us a place and volunteers. The language was our priority when we started. After this, we looked for workshops for work, ran activities, and now in the pandemic, we've been focused on looking after our community's wellbeing, making healthy food, helping with employment after Covid and finding volunteers to help people feel less isolated.

Another project with the university which ran for more than 3 years was called Refugee Language. We found loads of students who were willing to volunteer

but didn't know how, so after some quick checks, these students would visit families in their houses to help children with their homework, to chat with the women, to be fed. These students study for four years without their families here, so on Friday or Saturday evenings, they'd visit these families, who'd feed them - they'd never let them go without a good meal! Though initially they only planned to volunteer for one hour, again and again one hour would turn into five. We had such lovely feedback from both sides. These families felt they had a friend, speaking perfect English and sometimes even helping them with paperwork, and the students felt at ease. They could play with the children if they missed their siblings, and feel part of their homes. There are some American students who are still in contact with those families. It was a great project - Covid has made it difficult, but we're aiming to start it again.

These days, we have a huge range of people, which is why we have such different activities - I want to provide service to everyone. We run summer activities for the children, a programme helping educated women, and another supporting women without any qualifications or degrees already. We are all from different countries, not only from Syria. We try to include and engage everyone. Our organisation is very different to others, because it's run by us, by refugees, and we know what we need. It makes us very successful and warm.

We meet every Friday - sometimes we pray together - and every week, one lady will cook good healthy food, and teach us how. Food is such a big part of our culture. We'll always have some visitor or other, some English friend, and we're so proud because they always give us such lovely feedback.

I remember one single mother, who had young children and was very depressed; she was handling a lot of issues and needed medical treatment. We found a very good job for her, and we looked after her wellbeing. And she prays for us every day, which honestly makes you wonder: well, what more can I ask for? It's not just an enjoyable job, it strengthens my relationship with my God - pleasing him, and feeling appreciated too. I'm very proud of everything we've achieved - and everything has been put into motion by our own women. Some of them had never even left their own cities, and now they're coping in Oxford.

Each photo reminds me of wonderful moments. When I founded Syrian Sisters, I was coordinating everything myself. I have trained another woman who coordinates it now, and I'm so proud of her. At our end of year party, everyone surprised me with two cakes to celebrate my birthday, and to thank me for looking after them. I will never forget this moment in my life. That sense of community is really strong.

We employ a lot of women now and are aiming to help different groups of women now. We want to train some women in my community to help Afghani people arriving in Oxford, to mentor them. We want to keep supporting our elderly people, and our young people; we want to keep looking after our culture and language: those are our aims. Looking after each other, being warm to each other and keeping going. After five more years, I'll step down, I think, but insha'allah it'll have an impact for many years to come.



by Nuha Abdo



# Current Affairs

The subtheme of this Current Affairs section is Control; our authors interrogate the academisation of state schools, the tactics underlying the government's response to the pandemic, male domination within the modern workplace, and the controversial Nationality and Borders Bill. As always, the views expressed in this section only represent those of their authors.



# A Power Vacuum in the Classroom?

## How 'super strict' academies infiltrated English education

Over the course of the last two decades, through the academisation of state schools, successive governments have discreetly abandoned responsibility for the education of England's pupils. Now unwilling to turn back on this unsuccessful experiment, the public sector turns a blind eye to the results – schools where student outcomes remain questionable, parents are mired in uncertainty, and punitive, prison-like discipline reigns supreme.

Academy schools were first introduced by the Labour government in the early 2000s, as part of a drive to remedy, or replace, failing inner-city secondary schools in England. Academies differ from typical state schools, in that they are not funded and overseen by local authorities. Instead, academies are funded directly by the central government, and possess significant monetary, organisational, and educational autonomy. These early academies were supported, both in terms of finances and management, by esteemed individuals or businesses, forming public-private partnerships, a hallmark of the Blair era. Although the introduction of the first academies passed quietly, this period would serve as a turning point in the history of English education.

By 2010, academies remained a small part of the educational landscape, accounting for slightly more than six percent of English state secondary schools. However, the coalition government soon pressed ahead with plans to dramatically increase the number of academies by deregulating the sector, essentially outsourcing much of the state education system. These reforms also invited all state schools in England to become academies, whilst also enabling brand new academies to be established, known as free schools.

The impact of this move was astounding. Within a year, the number of academies in England had tripled to over 600. By 2012, more than half of state secondary schools in England had become academies, and the scheme was extended to primary schools. The latest figures for 2021 show that 37% of primary schools, as well as 78% of secondary schools, are academies. Despite this, figures show that local authority schools were more likely than academies to maintain good or outstanding Ofsted ratings.

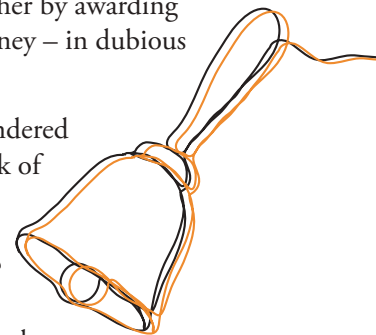
The early 2010s also saw a distinctive shift in terms of wider education policy. Michael Gove, the Education Secretary at the time, spoke of reintroducing "rigour" to the classroom, principally by reintroducing O-levels

to replace GCSEs, and emphasising the importance of rote learning and traditional discipline. Meanwhile, Sir Michael Wilshaw, Ofsted's Chief Inspector of Schools in England between 2012 and 2016, regularly criticised schools in the media for failing to regulate behaviour, and in particular tolerating so-called "low level disruption". School leaders, themselves threatened by the fear of poor Ofsted inspection reports, began to enforce ever stricter behaviour expectations on pupils – expectations that still prevail nationwide today.

What's more, the situation began to worsen, as many academy schools, often overseen by those with little or no experience in education, soon required intervention. Instead of simply reverting back to local authority control, these schools were taken over by existing academies, forming academy chains, known as multi-academy trusts (MATs). Over one thousand of these organisations exist, with over one hundred MATs each running more than a dozen schools. UCL research from 2018 demonstrates that pupils in these large MATs achieve considerably worse exam results. Individual schools, however, cannot voluntarily leave a MAT or revert to local authority status – any school that is dropped by its MAT is placed within a new one. Consequently, the largest MATs, including the Harris Federation, the Oasis Trust, and ARK Schools, continue to grow larger.

Academies, and in particular MATs, with their cookie cutter vision for education, have failed to raise standards in English schools. Simultaneously, they have succeeded in creating uncomfortable environments for staff and students alike. Amongst all this, academy trusts are rarely held to account by the government, whilst their leaders pocket six-figure salaries. And if that wasn't enough, these leaders have sometimes profited further by awarding contracts – funded by taxpayers' money – in dubious circumstances.

It is clear that poor execution has rendered academisation unsuccessful in its task of improving educational outcomes for England's children. So why is the government so afraid of intervening? Is the current situation really the result of a power vacuum where nobody is willing, or able, to take responsibility for state education?



**Yusuf Hassan**

# The Tyranny of Liberal Control

On 23<sup>rd</sup> March 2020, Boris Johnson announced that the country would be going into its first lockdown. I remember that day acutely. A week or so earlier I had been travelling back from Oxford for the end of what had turned into a fairly strange term. I sat listening in the car as the radio presenter declared that our Prime Minister hoped for a return to normality within twelve weeks. It has now been one year, eight months and, at the time of writing, two days.

What I wish to address in this short space is not primarily the morality of lockdowns and other government-imposed restrictions. I want to know why it is that we are in a position where mainstream discourse around potential responses to the pandemic has continuously been so monotone and one dimensional, and how it is that the people of this country have so readily adopted its voice. A top-down dictated discourse: its native speaker, the BBC; its pupils, social media users and their echo chambers. It grows increasingly difficult to distinguish what is sensible from the moral pressure that underlies liberal control.

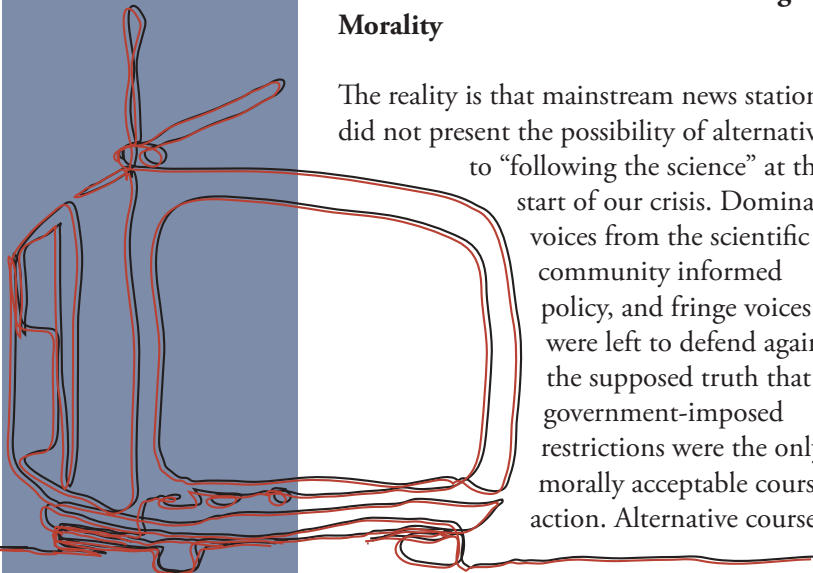
## **Follow the Science: Our New Guiding Morality**

The reality is that mainstream news stations did not present the possibility of alternatives to “following the science” at the start of our crisis. Dominant voices from the scientific community informed policy, and fringe voices were left to defend against the supposed truth that government-imposed restrictions were the only morally acceptable course of action. Alternative courses of

action were portrayed as lunatic and seldom broadcast or discussed on any major news platform. The problem with this is that “the science” came with a whole accompanying agenda: science is not a normative discipline. It can help inform normative judgements but it does not *in and of itself* provide moral injunctions on how we should live our lives and what specific actions a government should take in a given situation, if any. Among the unfortunate characteristics of the last couple of years has been the wrapping up of an entire course of political action under the guise of “science” and justifying it on that basis. Provocative comparisons thrown around such as “science vs Boris Johnson” and “lives vs economy” have served the purpose of presenting false dichotomies in the midst of a discussion that should be far more nuanced. “Lives” and “economy” are not mutually exclusive categories — a bad economy, for example, will have implications for the quality of healthcare available. Had reporting on this pandemic been less loaded with such ridiculous comparisons and preachy one-sided moral injunctions, I do not believe that people would feel the need to adopt extreme positions. We would not see so many individuals propagating vaccine misinformation on social media. They speak the language of black and white thinking only because this is the language that has been taught to them. If categorical moral injunctions are all that are dictated by prominent institutions, then of course there is going to be a reflexive pushback.

## **Protect our NHS: Accept the Unacceptable**

This leads onto our second predicament: the government’s dictation of morality. I observed at the Tesco on Oxford’s Magdalen Street that the day before they became mandatory, early in December 2021, only a



minority of customers wore face coverings in supermarkets; the day after, it was difficult to spot a customer who did not. Government narrative was designed to dictate the discourse and hugely affect receptivity to policy changes. The people were softened up. Perceived personal threat and the sense of duty to others — including towards family members, friends and wider society via the continued function of the NHS — were targeted in order to ensure obedience to the law. The approach of surveillance and punishment, whilst an important component of control in far Eastern countries, was contrastingly not so central (nor would it have been effective) in ensuring compliance to English law. Liberal democracies had no option but to emphasise the moral case for compliance. Social duty in particular has been homed in on, meaning individuals have not only been ready to accept personal restrictions as they have come in, but have welcomed and propagated them. The result is a much more subtle tyranny. The issue for me in this case is not the wearing of masks, but that people have become *religious* in their devotion to government rules to the extent of adopting the voice of government control. There is a difference between taking precautions because they are sensible and taking them due to moralistic pressure.

### **Save Lives: Where are your Morals?**

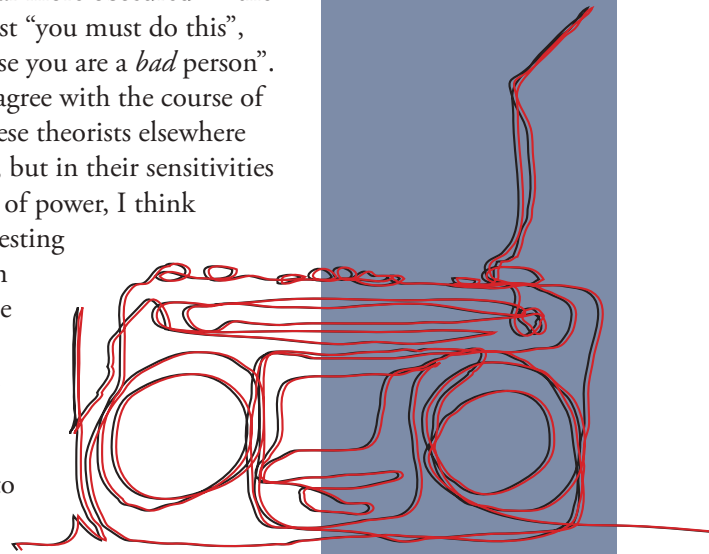
The sinister element is the specific way in which control has been exercised in Britain and much of the Western world. Whilst designed by those in positions of power, it has been principally secured by members of the public. In his book *Discipline and Punish*, Michel Foucault discusses how power manifests in different forms over time, highlighting how, whilst in the past punishment has focussed on the body, modern prisons now target the soul. The one is an overtly obvious manifestation of power whilst the other is more subtle, yet potentially more sinister. Similarly, Slavoj Žižek describes modern authoritarianism as being highly moralistic in its methods. Old fashioned authoritarianism is clear as day — dictated and spelt out clearly by those at the top; contrastingly, modern

authoritarianism is far more obscured — the implication is not just “you must do this”, but “do this otherwise you are a *bad* person”. I do not necessarily agree with the course of moral action that these theorists elsewhere suggest is warranted, but in their sensitivities to varying dynamics of power, I think that they make interesting points. Authoritarian elements today in the West have a moral implication intrinsic to them whereby it is not just about telling people what to do but teaching them how they should think.

One might identify other social issues today where this same moralistic sentiment is easily discernible, and what always follows is a proportionate reaction.

For all my criticism of “liberal democracies”, for the most part I like living in Britain. England is my home and so-called liberal democracies have much to commend themselves. However, my intention here is to draw attention to a particular blemish that plagues Western governance which is not easily discernible in other parts of the world. You might not agree that there are sensible alternatives to government-imposed restrictions on social interactions for what has now been approaching two years; I might think that during this time some of us have forgotten what it means to be human. Perhaps you’ll say I’m being dramatic and naïve, and that’s fine. I won’t question your right to hold that opinion. I urge you though to at least consider whether your sense of morality has stemmed from your intuitive sense of right or wrong, or if it’s just that you’ve become another spokesperson for liberal control. What is your religion and why are you doing this?

**Noor Qurashi**



# Women and the Workplace

There are more CEOs named Peter than there are women CEOs.<sup>1</sup> As my time at university is coming to an end and my entry into the workplace nears, I have begun to ponder my position in the workplace as a Muslim woman. When reflecting on previous generations of women in the workforce, it seems there is a lack of control and this can be traced to two key factors: the expectation, including cultural traditions, of women to become mothers and the established patriarchy in the workplace.

When women halt their careers to become mothers, this often comes with many sacrifices. This aligns with what some women want and have planned, but for those who wish to juggle the two, it can inhibit or slow down their career progress, which then makes them less likely to be promoted into senior positions in the office. This continuous cycle adds to the lack of control women have, forming a stark difference in comparison to their male counterparts, who are not expected to take a significant amount of time off work. For Muslim women of colour specifically, there are cultural traditions which contribute to women lacking control in the workplace. These women are expected to become mothers and their sole focus should be on raising their children. If we look at the reasons behind the lack of older Muslim women in the workforce, we see this ongoing expectation of women running the household which further impacts the progression of women in the workplace.

The established patriarchy produces a favouritism towards men which sets them up to be in positions of power.<sup>2</sup> Stereotypes and the upbringing of men better places them for positions of power; supposed qualities of a leader such as dominance and ambition are more associated with men. For example, it is stereotypical that a man that exhibits aggression and control tends to be more respected. This dominance lends itself to lad culture, prevalent across many areas of life including the

workplace. Casual sexism, degradation of women and increasing rates of sexual assault can all be seen as products of lad culture, and all of which create an environment which can feel deeply hostile to women.

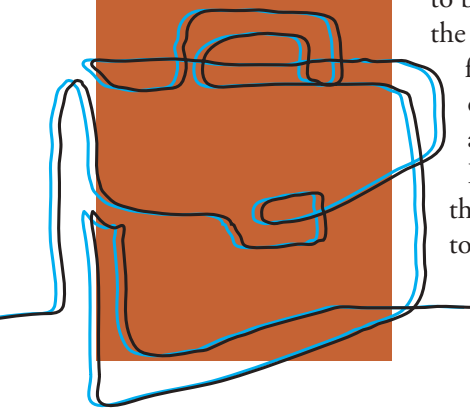
In contrast, women are viewed as soft and maternal; qualities that suggest they are not fit to be CEOs. Ironically, even if they did have the authority and ambition supposedly required for positions of power, they would be viewed as unfeminine and unlikeable. For example, the stereotype of women belonging in the kitchen might give the impression that women are the better cooks. However, there are hundreds of male chefs that hold Michelin stars in comparison to just six held by women.<sup>3</sup>

As Muslim women, we need to establish what it is we want; it is fundamentally about having the option to *choose*, and enabling generations of women to excel professionally by addressing the obstructions in their way. This includes the gender pay gap and discriminatory employment practices, for example, but it all funnels down to the fact that women lack control in the workplace. This can very quickly translate into a lack of control within one's own life, and perhaps losing one's sense of self. To avoid this, we all need to make sure these are topics of conversation within our workplaces and our homes, so that each person can express what it is they want, and others can support them in achieving this. In fact, we can look to Khadija (RA) as a source of inspiration: a successful business woman in her own right, controlling one of the most important caravan trade routes in the region. A woman who had control.

**Kadiza Khanom**

Footnotes:

1. <https://www.fastcompany.com/90534066/what-is-a-peter-problem-jaw-dropping-study-of-u-k-ceos-reveals-more-named-peter-than-women#:~:text=Which%20brings%20us%20to%20the,of%20the%20population%20is%20female.>
2. [https://theconversation.com/why-are-there-so-few-women-ceos-103212.](https://theconversation.com/why-are-there-so-few-women-ceos-103212)
3. [https://elitetraveler.com/features/the-rise-of-the-female-michelin-star-chef.](https://elitetraveler.com/features/the-rise-of-the-female-michelin-star-chef)



# Countering the Borders Bill

In the last two years, amidst the backdrop of a raging pandemic, the government has slowly begun a process of eroding our basic rights and liberties in this country. Its seventy-nine seat majority in Parliament has paralysed any effective opposition to the state, ensuring the emergence of an “elective dictatorship”. With proposals on curtailing the right to protest, the planned introduction of voter IDs that implicitly discourage voting and the diminishment of due process in citizenship revocation cases, the Conservative Party have embarked upon a frightening path towards totalitarianism.

The Nationality and Borders Bill relating to matters of asylum, immigration and citizenship was introduced in July 2021 and is currently passing through its second reading in the House of Lords. In November 2021, the Home Office quietly, amidst the public uproar directed at Boris Johnson over the Christmas party scandals, added a provision to the Bill that dangerously tips our democracy into the realm of authoritarianism. The newly added Clause 9 exempts the Home Office from having to give notice of a decision to deprive a person of their citizenship if it is “not reasonably practicable to do so, in the interest of national security, or otherwise in the public interest.” The clause is controversial as it builds on decades of draconian measures since 9/11 used to strip British citizens, mainly British Muslims, of their nationality. By removing the notice requirement, the government makes it harder for those targeted to appeal the decision, effectively creating a two-tier citizenship system where roughly six million people from an ethnic minority could be targeted for any reason the Home Office sees fit.

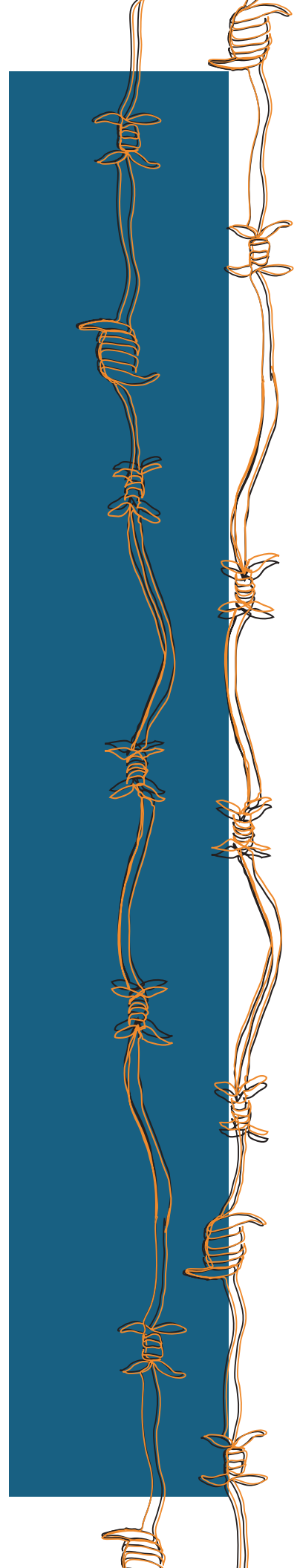
The government’s power to remove people’s citizenship has in the past been used in contradiction to national and international law, calling into question whether the state can be trusted to make fair and impartial decisions. Making citizens stateless is illegal under both the British Nationality Act 1981

and the UN Convention on the Reduction of Statelessness. In 2019, the government revoked Shamima Begum’s citizenship on the grounds of national security arguing that she would not be left stateless as she was, by birthright, entitled to Bangladeshi citizenship. Whilst technically true, Bangladesh’s foreign minister stated at the time that Begum would not be allowed to enter the country and if she did, would face the death penalty due to their “zero-tolerance policy towards terrorism”. The British government’s decision to revoke Begum’s citizenship when she was unable to acquire another nationality essentially rendered her stateless and thus was illegal by all accounts.

The Bill also seeks to overhaul the current immigration system, with the government claiming it will wipe out human trafficking gangs and protect refugees. In reality, the opposite is true. The Bill introduces a new definition of “entering” the UK, which is likely to make it easier to prosecute migrants intercepted in UK waters. Refugees travelling into the country via “unofficial means” could face up to four years in prison. Under the new reforms, up to around 22,000 people each year who would normally be regarded as refugees would no longer qualify, according to the Refugee Council. There is now a real risk that refugees will now be judged on how they came to the UK, rather than the circumstances that led them here.

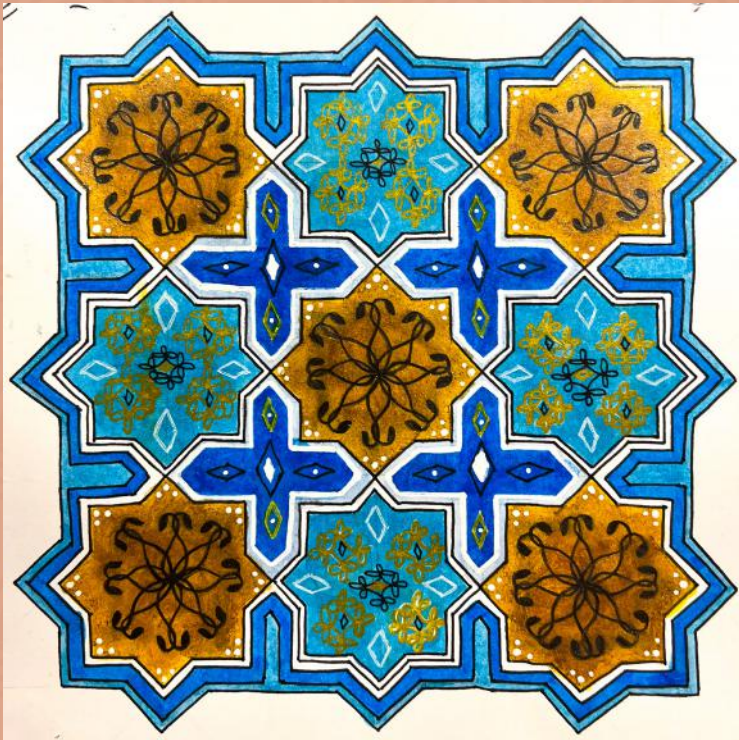
The proposal in Parliament is an extension of hostile state policies systemically targeting marginalised communities – if we want to halt its advance, we must be proactive in holding this government to account, whether that is on the streets, in the courts or at the ballot box.

**Enes Morina**





# Community Works



'Rahma'



'1/52'

1/52

After falling in love with the beauty of the Dome of the Rock and appreciating how ornately detailed each tile is, I recreated just 1 of the 52 patterned arches in order to focus on the details. Including the gold plated dome inside the arch added an abstract touch

Rahma

Inspired by a book on Islamic Design, I recreated this geometric pattern also known as "The breath of the compassionate", using a colour palette inspired by the Dome of the Rock.

Amy Russell,  
Oxford Brookes



'Patterns and Arches in Medina'  
Hira Javaid,  
St John's College

## Patterns of Being

A forlorn scattering of dust floats,  
Tracing borders of the raging pit  
Trying to define what constitutes sin,  
Creating arcane shadows in the midst  
Reflected in the fire-light,  
They tell the story of another life,  
Two endless lapses of time,  
Forced together on the same night.

Zuhaira Islam





'Umrah'  
Aaliyah Natha,  
Exeter College



'Windows and Panes'  
Tayiba Sulaiman,  
St Hilda's College





# Islamic Art: Geometry, Patterns and their Hidden Meaning

According to many holy scriptures, representation of figurative images is forbidden in Islam in order to avoid them becoming objects of worship; instead, artists were led to explore non-figural types of decoration in Islamic art and architecture. As a result there are predominately three forms of decoration found in Islamic culture: calligraphy, vegetal patterns and mathematically designed decoration, better known as geometric patterns, which will be the focus of this article.

The use of geometric patterns is widely used in Islamic culture as they are not simply a form of decoration but are steeped in symbolism. They have an underlying language with the intention of helping the believer to reflect on life and the greatness of creation.

Geometry had been associated with metaphysical properties long before Islam. The development of geometry through Islamic art and architecture directly correlates to the significant growth of science and technology in the Middle East, Iran, and Central Asia during the 8<sup>th</sup> and 9<sup>th</sup> centuries. This was prompted by translations of ancient texts from languages such as Greek and Sanskrit. The Greeks had contemplated the perfection of geometry and came to associate it with divine properties. Muslims who subsequently studied Greek mathematical works agreed on this, and as a result began to integrate geometric art as a spiritual gate to the divine.

By the 10<sup>th</sup> century, original Muslim contributions to science became significant. The earliest document on geometry in the Islamic history of science was written by Al-Khwarizmi in the early 9<sup>th</sup> century. Islamic mathematical and astronomical ideas later

spread to Europe via the Moorish occupation of Spain. The patterns found in Islamic art and architecture were initially derived from simpler designs used in earlier Greek, Roman, and Sasanian cultures in Iran.

The compass and the ruler are to this day the only tools used to construct the complex patterns and are based on a grid system. All patterns are derived from four basic shapes, from which the more complicated patterns are constructed. These basic shapes are: circles, triangles, squares or four-sided polygons and finally the ubiquitous star pattern. These may be overlapped and interlaced to form more intricate and complex patterns, including a wide variety of tessellations.

The symbolism behind the mathematics begins with “one”, as represented by the point or the circle. As circles have no end, they are infinite and so in turn remind Muslims that Allah is the infinite Creator. Complex geometric designs in turn create the impression of unending repetition, and this also helps a person get an idea of the infinite nature of Allah. The other three basic shapes are all derived from the circle and so the source of every pattern, however complex, ultimately takes you back to the symbol of Allah and unity.

The triangle is commonly formed by firstly drawing a straight line across the centre of the circle, crossing the central point. A second circle is then drawn, using a point at the end of the line, thus creating two overlapping circles. An equilateral triangle is then easily drawn using the guide points formed. The triangle is the Islamic symbol of consciousness and harmony. The points at each corner symbolise the knower, the act of knowing and the known; that is the consciousness which

knows the divine truth. The square is also formed by initially constructing interlacing circles. The square symbolises the four elements earth, air, fire and wind and is also a symbol of stability.

The complexity and variety of patterns evolved to include simple stars and rhombus shapes in the ninth century, through to a variety of six- to thirteen-point patterns by the 13<sup>th</sup> century, and finally to include also fourteen- and sixteen-point stars in the sixteenth century. The star patterns are unquestionably the most beautiful and intricate of all the Islamic patterns. They owe their beauty to the high level of symmetry at all levels.

The Quran proclaims: “Allah is the light of the heavens and earth” [24:35]; this is the only description of Allah Himself within Islam. Stars produce light in the heavens, hence this is why their form appears widely in Islamic culture. Some of the star patterns have symbolic significance. For example, the five-pointed star reflects the Five Pillars of Islam which are central to the faith and is found in the symbol of Islam alongside the crescent.

The popular recurring eight-pointed star began to appear in Islamic art in the Middle Ages. It is made of two squares, one rotated 45 degrees over the other. It is referred to as *khatim* or *khatim-sulayman*, meaning “seal of the prophets.” These stars are known to denote life, as it is understood that the sun, itself a star, sustains life on earth. Other stars are also seen as a symbol of divine guidance, or enlightenment in the darkness.

Over the centuries these complex patterns began to embody a refusal to adhere strictly to the rules of geometry. As a matter of fact, geometric ornamentation in Islamic art

suggests a remarkable amount of freedom in its repetition and complexity. It offers the possibility of infinite growth, in turn giving a glimpse into the spiritual world and perfection. Some examples also accommodate the incorporation of the other types of ornamentation as well: calligraphy and vegetal patterns.

These geometric patterns not only adorn the surfaces of monumental Islamic architecture but also function as the major decorative element on a vast array of objects and use a variety of materials including kilim carpets, tilework, pierced stone screens, ceramics, leather, stained glass, woodwork, and metalwork.

While geometric ornamentation may have reached a pinnacle in the Islamic world, interest in Islamic geometric patterns is increasing in the West, both among craftsmen and artists including M. C. Escher in the twentieth century, and more recently among mathematicians and physicists including Paul Steinhardt and Peter J. Lu, both recognised for their discoveries of fractal quasicrystal patterns found in Persian girih tiles in Medieval Islamic architecture. The finding was considered a significant breakthrough as the patterns were found to possess the same characteristics to Penrose tiling, but predating their discovery by five centuries.

This complex art form, dating back centuries, will continue to arouse interest for centuries to come. These craftsmen demonstrate that with creativity and dedication, a compass and ruler, intricate and detailed works can be produced that are not only pleasing to the eye but are also interlaced with deep symbolism, leading to a new-found appreciation for Islamic art.



Lana is an artist and Architect based in Oxford. She graduated from Oxford Brookes University, with a Master of Arts with distinction in International Studies in Vernacular Architecture (ISVA) before qualifying as an Architect in 2007. Cultural identity is an underlying theme in many of her works of art, which have been exhibited at a number of exhibitions including the Victoria and Albert Museum, London and the Istanbul Trienali in 2013.

**Lana Al-Shami,  
Architect**



# Research Showcase

The Research Showcase really shines in this issue; the following articles provide an insight into the James Webb Space Telescope, which launched on 24<sup>th</sup> December 2020, then take a deep dive into the wonders of the spirals in nature, introduce us to the technique which can be used to capture images outside of the visible light spectrum, and explore the importance of Muslim children's fiction.

# Galaxy Evolution with the James Webb

RESEARCH PROJECT

Imaan Wallace,  
DPhil in Astrophysics

In recent centuries, we have made phenomenal progress in understanding our solar system and our own galaxy, the Milky Way. However, this progress has been markedly delayed when applied beyond our “local neighbourhood” of galaxies, limited both by technological constraints and poor-quality data. As an unfortunate consequence of the fixed speed of light, this failure to adequately describe distant galaxies represents a failure to grasp our own history, and an ultimate inability to connect the present day to the dawn of time.

Luckily, the James Webb Space Telescope (JWST) promises to resolve this dilemma. Just over a month ago, astronomers from around the world celebrated the long-awaited launch of the spacecraft from French Guiana in South America. After more than a decade of delays, JWST should revolutionise the field of astronomy with its cutting-edge sensitivity and image resolution, making it a prime candidate for studying the earliest stars and galaxies.

JWST achieves this remarkable capacity in several ways. Firstly, its precision-sculpted mirror is assembled from 18 separate hexagonal segments, strategically packed to fit inside modern spacecraft fairings, which unfolds in space to nearly triple the diameter of that of its predecessor, the Hubble Space Telescope. Secondly, JWST detects primarily infrared light, which accommodates for how the expanding universe ‘stretches out’ visible light beyond what optical telescopes can detect (literally, “redshifted”). Thirdly, it achieves a sufficient sensitivity by orbiting far from Earth, deploying a five-layer, tennis court-sized sunshield which prevents further interference from the Sun. As a result, JWST can peer farther out than ever before.

In addition to images, JWST can extract the spectra from galaxies, much like rain transforming sunlight into rainbows. This “spectroscopy” technique reveals many key

features of underlying galaxy physics. For example, the general shape of the spectrum can tell us the average age of the stars. Additionally, some of this starlight may be ‘scattered’ by dust, altering the slope of the spectrum by reducing the light at higher frequencies. Further, different elements in the surrounding gas absorb and re-emit light at specific frequencies, producing signature bright and dark lines in the spectrum which can be used to measure overall stellar activity, chemical composition, and provide rough estimates of distance from us.

Several mathematical models exist to describe these phenomena (to varying degrees of success). By layering these models on top of one another, we can produce complete phenomenological descriptions of individual

galaxies. In my research, I use a software called BEAGLE which applies Bayesian statistics to galaxies in order to ask how probable different parameters are in reproducing real-world galaxies.<sup>1</sup> Doing so reduces prior model assumptions, letting the data advocate for itself.

Applying this to JWST, I hope to use BEAGLE to describe the history and evolution of galaxies across a wide range of cosmic time.

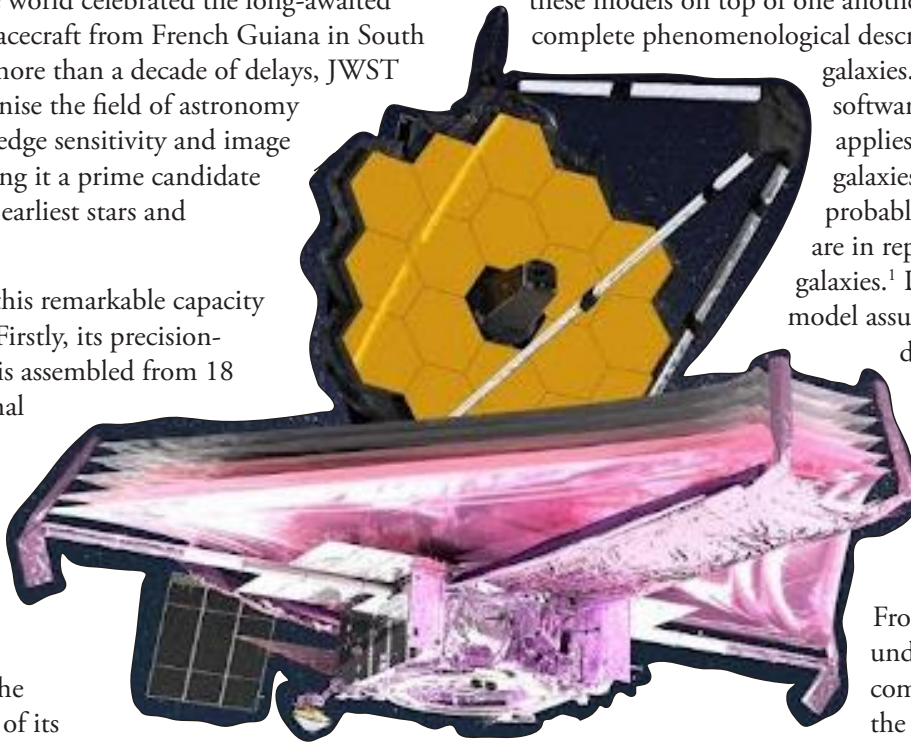
From here, JWST will undergo a six-month commissioning period, where the instruments are calibrated before it can begin its first observations mid-2022. Beyond just our research, other groups may use JWST to study the first stars, characterise exoplanets, and continue the search for extraterrestrial life. A truly exciting time for astronomy.

Further reading:

1. Official JWST webpage: <https://webb.nasa.gov/content/about/index.html>

Citations:

1. Chevallard, J. and Charlot, S., “Modelling and interpreting spectral energy distributions of galaxies with BEAGLE”, *Monthly Notices of the Royal Astronomical Society*, vol. 462, no. 2, pp. 1415–1443, 2016. doi:10.1093/mnras/stw1756.



# Spirals and the Golden Ratio

The Fibonacci numbers are a familiar sequence where you begin with two 1s and then every other number is the sum of the previous two: 1, 1, 2, 3, 5, 8, and so on. I had forgotten all about it until it recently surfaced in a problem sheet. We had to construct a matrix (a mathematical model) to represent the Fibonacci sequence and compute the corresponding eigenvalues, which tell us about the spread of data. Upon calculation, these values are functionally reduced to 1.618 and -0.618 (to 3.s.f). This leaves us with phi, the golden ratio, 1:1.618, the rate of growth of an object that can be innately pleasing to the eye. Both eigenvalues are valid, but for the sake of simplicity, 1.618 is the more commonly used example. There are many ways of arriving at this value, but it can be simply found as the ratio between two consecutive terms in the Fibonacci sequence. We get closer to this number when we take ratios of higher terms as the sequence tends to infinity. For example,  $8/5 = 1.6$  and  $34/21 = 1.619$  (to 3.s.f).

The golden ratio is also known as phi, the golden section, and the divine proportion. It is the most irrational

number and thus cannot be written as a fraction of integers, or even remotely approximated by one. Irregular, unpredictable numbers are nature's way of allowing objects to fit around each other. Some have speculated that blooming roses, spiral galaxies, hurricanes and the DNA double helix might all share the Fibonacci proportion, although such spirals can also be found with other proportions in place. It may even have a presence in fluid dynamics, or in waves and hurricanes. Fibonacci claimed knowledge of these numbers, but stated his influences lay within Islamic scholarship, and his findings are similar to renowned Muslim scholars, notably Al-Khawarizmi. There are also plenty of places in the Quran that point us towards examples in nature, like in Surah Al-Dhariyat:

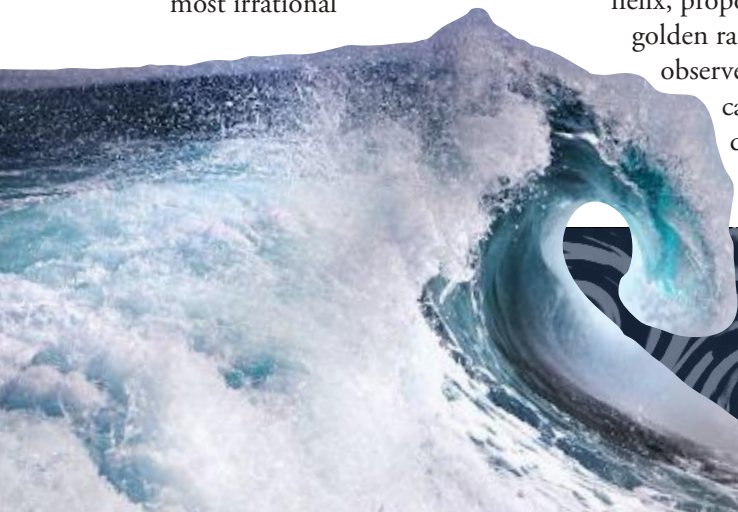
**There are many Signs on Earth for those of sure faith. And also in your own selves. Do you not see? [51:20-21]**

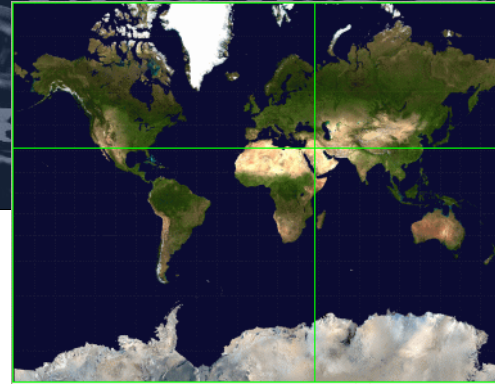
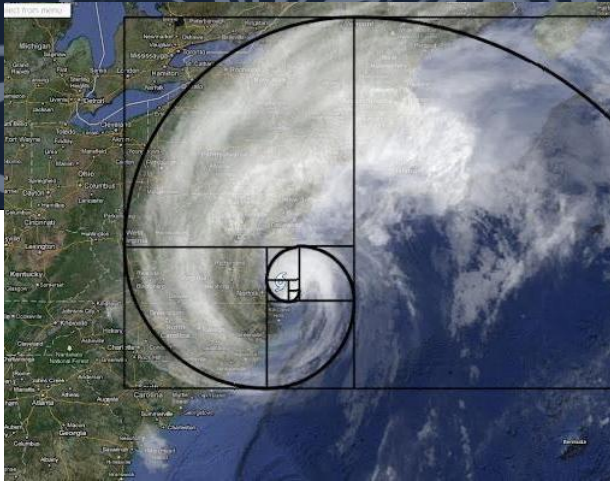
When we look closely at our own bodies, we see where these shapes start to emerge. As well as the DNA helix, proportions similar to the golden ratio and angle can be observed in the ratio of the cardiac and ventricular dimensions, and the

systolic (maximum) and diastolic (minimum) blood pressure counts, allowing for optimum heart pump structure and function. It has also been linked to reproduction: uteruses with dimensions closer to these mathematical ratios may be more fertile. The golden ratio also plays an important role in the miracle of hearing, as the earlap and cochlea are structures that follow this perfect geometric pattern. We may now look to Surah Al-Anam,

**And there is no animal that walks upon the Earth nor a bird that flies with its two wings but they are like yourselves... [6:38]**

Bird and butterfly wings are also proportioned similarly to the golden ratio, just as we are. The examples are numerous, and range from the tiger's face to the ram's horn – from the elephant's spout to the chicken's egg. These numbers continually appear within nature. Within his book *Liber Abaci*, Fibonacci notably introduces the sequence with a problem involving the breeding patterns of rabbits. And all these examples are linked to the Creator, as noted in Surah Ghaafir:





The distance of Mecca from the South pole vs to North pole is 1.618 and is claimed to be the golden ratio point of the earth.

**It is Allah Who... has given you shape and made your shapes beautiful and has provided for you sustenance.'**  
[40:64]

Proportions using the Golden ratio are inherently pleasing to the eye – they may have been used in Da Vinci's Mona Lisa and The Last Supper, as well as within studies of his Vitruvian man. The providence of sustenance can be seen in the way leaves grow in a spiral manner, ensuring that they do not cast shadows on each other, each receiving maximal sunlight as well as directing as much rain as possible to the plant's roots. It was Kepler who observed that leaves and trees naturally align themselves to a pattern matching the Fibonacci numbers and how these numbers regularly crop up in the number of petals we see on flowers such as lilies (3), cosmos (8), daisies (13), and chicory (21). These flowering plants bear fruit for our sustenance, just as our bodies sustain us. Much of the body is proportioned by the golden ratio, which is linked to practicality as well as beauty. Within Surah ar-Rum, it is written:

**...and thus follow the nature designed by Allah, the nature according to which He has fashioned mankind...**  
[30:30]

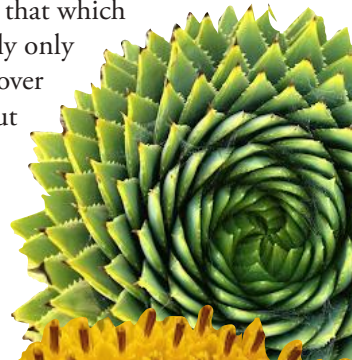
Our finger joints are proportioned in a similar pattern to the Fibonacci numbers, allowing our hands to form a perfect curl when we clench our fist, facilitating

our manual dexterity. Scientists look to mirror these mechanical movements, using the golden ratio in turn.

The Fibonacci numbers represent a fundamental mathematical structure. They are a tool which allow us to develop scales, structures, architecture, and data, imitating those natural patterns. We are blessed to have a blueprint and map laid out for us that guides us in our suitability of designs for models; a system we know will already work as it is repeated in nature over and over. As AbdurRasheed argued in the last issue of Ikhlaas, nature and science do not disprove religion; we see here that Allah has left nature as a microcosm of his creation and ability to create. It is a marked sign for us believers to ponder and reflect upon. But nature alone is not sufficient to convey to us the entirety of God's qualities; we must strive to develop a relationship with him beyond this and learn about *aalim ul ghaib* (the world of the unseen), that which is beyond human evidence. Nature is truly only a witness to Allah's might and authority over all creation. God is reflected in nature, but even all of nature cannot be an absolute reflection of his majesty.

And Allah knows best.

Mehrin Abedin,  
2nd year Engineering  
Science



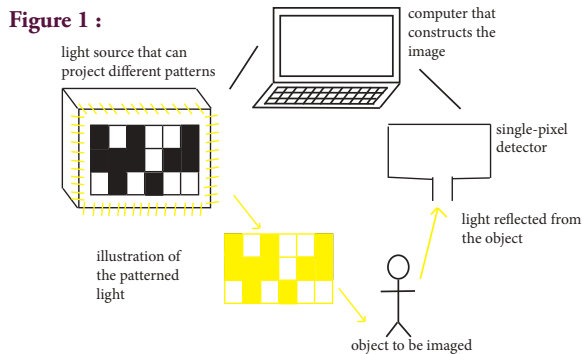
# Single-Pixel Imaging

How many pixels does your camera have? A lot more than one, that's for sure. Modern smartphone cameras are labelled by their megapixel count, with one megapixel being a convenient unit for about a million individual pixels. They work by focusing light onto an array of sensors arranged in a grid, each representing a pixel in the final image. Each sensor measures the light incident on it and uses that to figure out the output for its corresponding pixel.

This method of imaging is fast, but it doesn't work that well outside of the visible light spectrum, because the materials needed to make the sensors for some spectral regions are rarer and therefore more expensive. So: can we take an image with just one pixel? If we only have one light sensor, as opposed to an array of million, can we still construct a multi-pixel image?

The easy answer is yes. You could simply take this single sensor and move it in a grid, taking a picture at each position, effectively mimicking a multi-sensor array.

But this will take ages, so it's no good for imaging something in real time and the background light will easily overpower the image, so it will be very low quality.



There is a much smarter way to take a picture with a single, stationary sensor, as impossible as that sounds, and this is where things get interesting. Let's imagine we shine a pattern of light onto the scene we want to capture, and then measure the light reflected back at us. Our single sensor measurement is an indication of how similar the pattern and the scene are.

Therefore, if we shine lots of different patterns and make a measurement for each one, we will indirectly learn a lot about the scene. If one pattern returns almost no reflection, we know that the scene must look very different to it, and if another returns a strong reflection, we know that it and the scene look similar. A computer can be tasked with sorting out all the readings.

And just like that, a multi-pixel image can be reconstructed from a single sensor that hasn't even moved! It seems like magic, but that's the power of clever maths and clever patterns. Unfortunately, selling the iPhone 14 with a 1 pixel camera is unlikely to go well, but this technology has applications in all the fields which need pictures taken outside the visible spectrum. For example, radiation in the terahertz spectrum can detect cancerous tissue, probe for hidden weapons and even detect an artist's signature on an old painting! Single-pixel imaging is making all these applications possible, and more.



**Figure 2 :** This is an image of a model taken after one million patterns were displayed onto it.<sup>1</sup>

## For the more mathematically inclined

Now that the humanities students, medics and engineers have gone, we can dig deeper into the maths. Each  $i$ th reading the detector takes is given by  $n_i = \iint a_i(x,y)r(x,y)dx dy = \langle a_i, r \rangle$ , where  $a_i(x,y)$  is the  $i$ th pattern and  $r(x,y)$  is the reflectivity function of the scene. If we now think in terms of the image to be reconstructed rather than the reflectivity function, we can represent the measurements by  $\eta = A\Psi$ , where  $\eta$  is the vector of measurements,  $\Psi$  is the  $N$ -pixel image reshaped into an  $N \times 1$  vector, and  $A$  is the  $M \times N$  matrix where each row represents a pattern reshaped into a  $1 \times N$  vector. Thus, we can see that  $\eta_i$  is the inner product of the  $i$ th pattern and the image. If we display  $N$  distinct patterns such that  $M=N$ , then we can invert  $A$  to solve for  $\Psi$ .

This automatically implies a trade-off between image resolution and imaging time, since displaying more patterns will take longer. For this reason, compressed sensing techniques are often used. It is known that most natural images are sparse in the Fourier domain, meaning that

most high-frequency terms in the 2D Fourier series of most natural images are 0. Hence, if we choose our patterns to be low frequency 2D sinusoids rather than the random patterns shown in Figure 1, we can get away with displaying  $M \ll N$  patterns to find the most important Fourier coefficients, and then doing a quick inverse discrete Fourier transform (assuming all unmeasured coefficients are 0) to reconstruct a faithful representation of the image.

Naturally, any higher frequency contributions to the image would have been missed, hurting the quality of the final image, and to get around this sometimes reconstruction algorithms are used rather than the inverse Fourier transform. But these take time, so you've managed to speed up taking the image by using fewer patterns, but you've dramatically slowed down displaying it because of the hefty processing. These trade-offs are the focus of much intense research.

Reference:

1. Sun, Baoqing et al. "3D computational imaging with single-pixel detectors." *Science* 340.6134 (2013):844-847.



# Imaan and Identity in Children's Fiction

Mahirah Rahman  
BA English

As Muslims living in the "Western World", many of us can relate to the fact that we did not have fictional representation growing up. In this little bubble that we call "childhood", it is essential that Muslim children receive resources that will teach them to have self-confidence and unfaltering pride in their faith. Luckily, there has been a steady growth of Muslim authors whose sole intention is to educate and entertain the younger generation. By breaking the pattern of a lack of Muslim representation in literary history, these authors have successfully inserted the Islamic way of life into English childrens' fiction.

Authors like Asma Mobin-Uddin, Rukhsana Khan and Qasim Rashid beautifully present the struggles and growth of ordinary, relatable Muslim children. Mobin-Uddin perfectly captures the "overcoming the monster" storyline in *My Name is Bilal*, where the "monster" is a school bully, representing Bilal's inability to take pride in his identity. Bilal tells people his name is Bill to "fit in", but reading about his namesake, companion of the Prophet ﷺ, Bilal ibn Rabah, eventually gives him the courage to stand up for himself. Their stories mirror one another as Bilal finds strength through his faith. His story closes with him leading the adhan, just as his namesake had done over 1400 years ago.

Rukhsana Khan's *Big Red Lollipop* also depicts this intermingling of Muslim and non-Muslim life: Rubina navigates her relationship with her little sister, who gets in the way of her classmates. The story narrates the cyclical growth of two sisters who are brought together by the same thing that had once separated them — a lollipop, received after a birthday party, which at first represents greed and embarrassment, and later sisterhood and the gift of sharing.

Similarly, Qasim Rashid's *Hannah and the Ramadan Gift* and Mobin-Uddin's *The Best Eid Ever* focus on some of the basic foundations of Islam. In these stories about the month of Ramadan, the righteousness of good deeds is discussed. By following the acts of the Prophet ﷺ, Abu Bakr (RA) and many others, Hannah and Aneesa learn about the power of kindness, allowing them to share the beauty of Islam with other people. The readers are taught not to "show off" their deeds; instead they must be like "anonymous superheroes". The idea of helping our neighbours and our Muslim brothers and sisters reinforces the virtues of siblinghood and respect, stressing the importance of children having good role models to follow and look up to.

In just 30-odd pages, these writers have emphasised the key Islamic morals of faith, endurance, kindness and siblinghood, and highlight the common insecurities of Muslim children. Scholars of children's literature believe that stories should not sugar-coat reality because it hinders their development, and should instead provide solutions to common problems. Thus, by providing Muslim role models through which readers can trace the experiences of growing up, such stories are forging new patterns of positive representation; the younger generation can understand the obstacles they may face and build both a stronger connection to faith and an understanding of the *dunya* and *akhirah*.

TOPIC OF INTEREST





# Alumni

Finally, our Alumni Section features a personal reflection on tracing a path which breaks away from the expectations which normally surface after graduation, from alumnus Junaid Mubeen.

# Escaping Life's Local Maxima

For too many students, the before and after shots of the Oxford undergraduate experience are a worrying look. The triumphant optimism they bring to the dreaming spires diminishes as they contend with key life choices.

On the careers front, recruitment fairs and glossy brochures are saturated with conventional narratives around what constitutes a meaningful career. We're forcefully nudged towards a handful of prestigious roles – if not banking or consultancy, then perhaps a law conversion or accounting (so long as it's for one of the Big Four, of course).

As a maths student, I watched as my peers secured jobs in these sectors. For a while I thought I would follow suit but the most basic of sense-checks, aided by conversations with tutors and graduates who took more novel career paths, reigned me in. I realised that none of the standard roles met my own criteria of having fun while achieving social impact. I have resolutely sought a more autonomous professional identity, where the everyday means of my work is also its purposeful end. It is a journey of continual striving and self-reflection.

A criteria, however preliminary or primitive, safeguards us from stumbling through life on auto-pilot. How is it that some of the brightest students surrender their agency when evaluating job opportunities? Social customs have much to answer for. We're bombarded with signals from our family, our community and our peer groups, each of whom carry hopes and expectations for us. Our own notions of job satisfaction are easily distorted by the validation we seek from others. We find ourselves replicating established patterns of behaviour that scarcely resonate with us, privileging the familiar above all else.

Those customs persist because our education and upbringing places relatively little emphasis on questioning

accepted wisdom. As a result, many people find themselves trapped in what mathematicians call a local maximum – they've surveyed a narrow spectrum of career choices and found the most palatable amongst them, but they remain oblivious to the greater heights that await them if only they broaden their search criteria. An Oxford degree is itself a local maximum – many students convince themselves they've already reached an intellectual summit and use it as justification for relaxing their career ambitions.

The pressures of family and culture assert themselves even more strongly in our search for life partners, where archaic (and hardly Islamic) notions of race, nationality and even caste are allowed to govern our choices. A contemporary trope would have you believe that degree choice is a marker of compatibility – as if only medics "get" other medics, or only a mathematician could handle the analytical disposition of another. It is no more enlightened than the view that your soulmate must reside somewhere in the village where your parents grew up.

Yet our deen gifts us with the most inclusive of criteria when evaluating prospective spouses. If we followed the Prophet's ﷺ advice of selecting partners primarily on their character, we would witness a huge uplift in successful unions. It's hard enough to find a partner that will elevate you and share your most intimate moments; to do so within strict social parameters is needlessly prohibitive.

As you navigate the terrain for your own life choices, be prepared to explore beyond your current horizons. Have the courage to disrupt existing patterns of behaviour. You are more likely to arrive at your global maximum when your choices are truly your own.

**Junaid Mubeen**

Junaid Mubeen (St Anne's 2003-2011) is a mathematician-turned-educator and writer. After studying Maths up to DPhil at Oxford, he earned a Master's in Education from Harvard as a Kennedy Scholar. Junaid has spent the past decade working in EdTech and has recently partnered with Simon Singh to develop the world's largest online maths circle. Junaid's book, *Mathematical Intelligence: What we have that machines don't*, is out later this year (his TEDx talk on the same topic can be found via the QR code). In 2008 he earned fleeting fame as a series winner of Countdown.

Junaid has fond memories as an early adopter of ISoc football (his dubious talents notwithstanding), and as a member of the transition committee in



# ODE

Tayiba Sulaiman

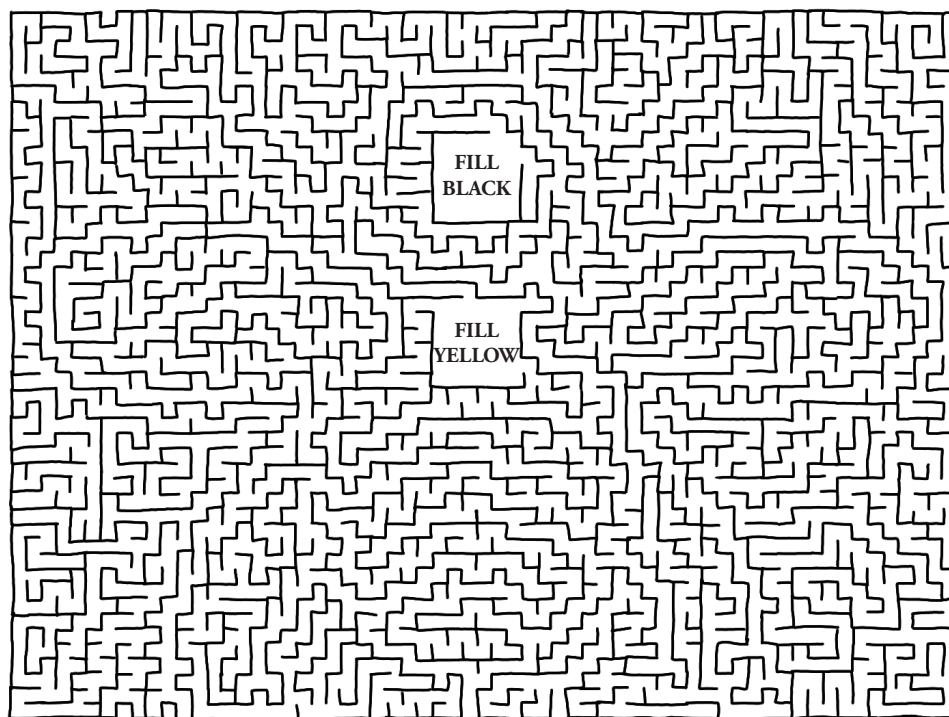
Since dishing out dinners for Covid iftar  
and long queues of Muslims around the PR,  
The long wait is over; the day is now here!  
The people of Oxford are shaking with fear!  
Corona is shifting; the bug's on the hoof  
But something is shaking the Robert Hooke's roof.  
It isn't a raucous new round of applause  
post-khutbahs with more than 10 people indoors,  
It isn't the cheers as the ISoc completes a  
half marathon just to lay hands on free pizza.

No, that's not the rumble! That can't be the chatter  
of students bemoaning their lack of grey matter.  
The PR is back as our hive of activity  
now that its members are out of captivity.  
But something is back, and it's not going to cease  
for sisters just trying to pray Isha in peace.  
The beaten and battered old Prayer Room screen,  
(for those who have wondered what sights it has seen)  
is stricken with fear of a renewed attack:  
after two years of calm, Brothers' Wrestling is back.

# BETWEEN THE LINES

Siddiq Islam

Reveal the image by following the path and staying between the lines.



# CRYPTOGRAM

Ahnaf Farabi

A	B	C	D	E	F	G	H	I	J	K	L	M

N	O	P	Q	R	S	T	U	V	W	X	Y	Z

12 8 7 4 6 26 24 24 11 5 21 11

26 21 8 8 7 12 6 12 6

8 7 24 1 4 6 8

15 9 17 25 8 16 14 9 4 3

8 7 4 8 12

18 12 1 1 26 24 3 4 10 12 11 14

# OUSOC Termcard - Hilary Term 2022

	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	
Week 1 16th Jan		Grad Ice-Cream Chill (6:30pm)	Q-Club (7:15 - 9:15pm)	Lessons from Imam Ghazali's Ihya by Sh Riyad (7 - 8pm)		Sisters' Chaitiwala and Chill (6pm)	Subject Family Reunion (7 - 8pm)	
Week 2 23rd Jan	Brothers' Ice Skating (7pm)			Lessons from Imam Ghazali's Ihya by Sh Riyad (7 - 8pm)	Election Info Night (7 - 9pm)	Refreshers' Formal (6:30pm)		
Week 3 30th Jan			Q-Club (7:15 - 9:15pm)	Lessons from Imam Ghazali's Ihya by Sh Riyad (7 - 8pm)	Brothers' Charly Fila Tournament (7pm)	Sisters' Movie Night (7pm)	Grad Tea and Cake Drop-In (5pm)	
Week 4 6th Feb	Muslim Worship: A Showcase of Sincerity	The Quran: A Journey Through its Origins and Contents	Muhammad (pbuh): Why We Follow the Prophets Example	Lessons from Imam Ghazali's Ihya by Sh Riyad (7 - 8pm)	Khayal Theatre: A Legacy of Sincerity	Open Jum'ah	World Cultural Fair	DISCOVER ISLAM WEEK
Week 5 13th Feb	Brothers' Grappling (7pm)	After the Last Hour (6 - 7:30pm)	Women's Figh (Sisters only) (6 - 7:30pm)	Lessons from Imam Ghazali's Ihya by Sh Riyad (7 - 8pm)	Sisters' Charity Quiz (6pm)	Friday Night Dinner with JSoc (7pm)	OMAC (9:30 - 3pm)	
Week 6 20th Feb	OMAC (9:30 - 3pm)	Reviewers of Islam: Umar Ibn Abdul Aziz (6 - 7:30pm)	Brothers' Chaitiwala (6pm)	Lessons from Imam Ghazali's Ihya by Sh Riyad (7 - 8pm)	Election Night (6pm)		Subject Advice Session (7 - 8pm)	
Week 7 27th Feb	Brothers' Paintballing (12:30pm)	Interfaith Socials: Brothers' Football (7pm) Sisters' Minigolf (7pm)	Q-Club (7:15 - 9:15pm)	Lessons from Imam Ghazali's Ihya by Sh Riyad (7 - 8pm)	Tackling Misconceptions Q&A (7pm)	The Uyghurs (7pm)	Grad Nature Walk (10am)	
Week 8 6th Mar	Charity Bake Sale Social (1pm)	Free Will and Pre-Destination Talk (6 - 7:30pm)	Culture and Islam (7pm)	Lessons from Imam Ghazali's Ihya by Sh Riyad (7 - 8pm)	Brothers' Games Night (7pm)	Sisters' Mocktails (7pm)		

## REGULAR EVENTS

Event	Dua Kumayl	Sunnah Fasts	Brothers' Fajr Breakfast	Brothers' Football	Tilawah Circle	Sisters' Mixed Martial Arts	Welfare Chats
Date/ Time	Thursday After Isha	Thursday Maghrib	Friday After Fajr	Friday 8pm	Sis' - Saturday 11am Bros' - Sunday After Isha	Sunday 9:30-11am	Check WhatsApp

## KEY

Religious Education	Community	Politics	Other
Graduates	Islamic Awareness	Welfare & Social	

رَبَّنَا تَقَبَّلْ مِنَّا  
إِنَّكَ أَنْتَ السَّمِيعُ الْعَلِيمُ

“Our Lord! Accept (this) from us.  
Indeed! You are the Hearing, the Knowing.”



# IKHLAAS

*The OUISoc Magazine*



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