The Lancing
Geographer

Changing Geographies of Hong Kong

Geopolitics of North Korea

Soundscapes

Geography of the Adur river

Interviews with Geography OLs

Lancing College

Journal of the Geography Department of Lancing College

EDITORIAL:

Hello and welcome to this year's Lancing Geographer –which aims to display and promote original work from college students.

In this issue, Hong Kong features heavily. With all the controversy surrounding the re-integration with China, two of our articles took a closer look at the megacity, one examining the system of reservoirs, and the other exploring the dynamic and ever-changing identities of the place.

Other features include some fascinating interviews with two OLs, discussing how studying geography helped them in their lives, an article about how music influences people's perception of place, a contentious debate around the dynamics of North Korean international relations and an excellent article about North Sea oil and its role in our future.

Thank you for reading, and we hope you enjoy!
Ben MS, Noah S, James G, Ian L.

THE EDITORIAL BOARD.

CONTENTS:

East or West? The changing identity of Hong Kong

Ryan L

In the first of two articles on the changing geography of Hong Kong, Ryan L reports on the changing place identity of Hong Kong residents. This article is based on his A Level Geography project.

The inspiration for this article is the protests in Hong Kong that became the centre of global attention in 2019. My aim is to investigate how British colonialism affected the sense of identity in Hong Kong. Once a tiny fishing port and trading outpost, it has evolved into one of the main financial centres of the world. Hong Kong was a British colony between 1842 and 1997.

In their research on identity shifts in Hong Kong since 1997, Steinhardt, Li and Jiang (2018) argued there is an emerging shift in emotional and physical identity, categorised as being Chinese or local 'Hong Konger'. With the rise of localism and the independence movement, the issue becomes more complex. Studying and investigating how the colonialism past of Hong Kong shapes today's identity, can explain the current conflict and identity crisis.

Saman Abdulqadir Hussein Dizayi (2015) illustrated how a crisis of identity is the

Photos of the Final Court of Appeal, Central Hong Kong in the colonial period (left) and today (right).

main aftermath of colonialism, as the confusion to true identity was because,

> *"they feel they detached from the previous history and not attached to present atmosphere of decolonization"* (Dizayi 2015).

British rule affected the social, political and economic systems in Hong Kong. However, protests in 2019 showed there is a struggle of identity.

To fully investigate the impact of British colonialism on identity, I answered three questions in my research:

1. *How have physical remnants of colonialism affected the sense of identity in Hong Kong?*

This question aims to investigate how British architecture and naming of streets and location affect the sense of places and identity in Hong Kong.

2. *How have cultural norms of Britain affected the sense of identity in Hong Kong?*

This question identifies the role that the mixture of British culture, and British traditions including language, food and festivals, have played in influencing local identity.

3. *How have political structures and ideologies of the British government influenced the sense of identity of Hong Kong?*

This question has been included to assess how British colonial rule and political philosophies have influenced the political structure and identity of Hong Kong. Ming K. Chan's work, 'Hong Kong: Colonial Legacy, Transformation, and Challenge' (1996), pointed out that Hong Kong was progressing democratisation before its return to China in 1997. The question can help determine whether such a trend took place in the years after. It is focused on democracy and the rule of law and its perception by locals. It also investigates the correlation between age and identity as to show how the British administration influenced the identity.

The physical evidence of colonialism in Hong Kong.

To investigate the evidence of British colonial rule in Hong Kong I focused on the origin of names of streets used photographic analysis comparisons. Many traditional Chinese street names were replaced by more Western sounding names which created a new identity for locals in the area of a westernised city. Such names are still in use today, showing its image on the place continues today. However, Hong Kong has become a very modernised urban city in Asia, with many more locations being built since the beginning of the

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colonisation. Formerly the city of Victoria, now the Central Business District of Hong Kong, was deeply influenced by western culture. My research shows that westernisation of physical identity varies across districts in Hong Kong; I only focused on three areas and all were in Hong Kong Island. If the investigation picked locations across the cities, including Kowloon and the New Territories, it could present a more diverse result.

Photographic comparison shows how British architecture still exists today.

Towards a unique Hong Konger culture.

Cantonese, the mother tongue of many Hongkongers is the most common language in Hong Kong and it is heavily influenced by English. Cantonese is unique to Hong Kong and distinguishable from Mandarin which is more common in China. Its creation shows how the English language created unique pronunciation of Chinese during its colonisation era. The language continues to be taught today and therefore separates the Chinese language between Hong Kong and mainland China.

Despite western influence, local Chinese traditional food remains popular in Hong Kong. Yet, in terms of identity, the British colonial period led to a mixture of traditional and westernised food, which makes it unique compared to rural villages and towns in China. As a result of changing food cultures, a main part of an individual's daily life, the result is effective in differentiating traditional and western influence on Hong Kong food culture.

Hong Kong political geographies.

The political identity in Hong Kong is changing, in line with predictions from Ming K. Chan's work, 'Hong Kong: Colonial Legacy, Transformation, and Challenge' (1996). With British colonisation, Hong Kong was isolated from China and its traditional Chinese culture. Hence, a unique, westernised identity of Hongkonger was created, with the mix of Chinese and British values.

As part of my research I asked a range of ages of people whether they identified as British, Chinese or Hong Konger. My result (see the graph) clearly shows that the younger generation see themselves as the local 'Hong Konger' identity.

Since the summer of 2019, Hong Kong experienced

"Since the summer of 2019, Hong Kong has experienced political protests against the government, and identity and politics became more polarised".

What do you consider is your identity? (Number of responses)
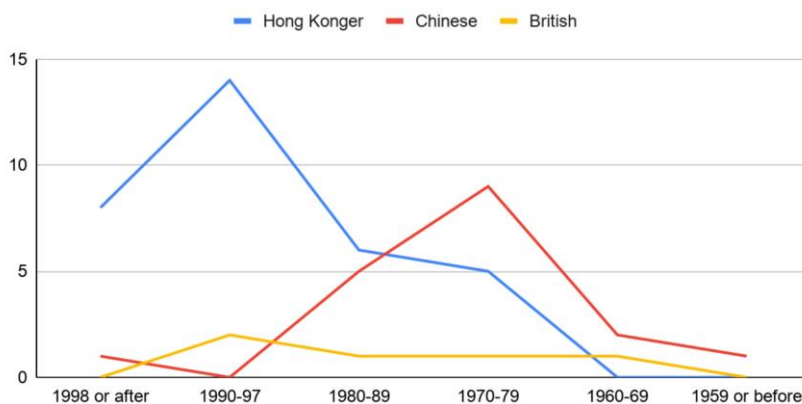
political protests against the government and identity and politics became more polarised. The protests also showed that Hong Kong people have a strong desire for democracy, along with freedom and justice. All such ideas are drawn from western philosophy and passed on by British colonial government. When compared with the Chinese political system, these values are not as important as their more traditional philosophy of patriotism. Therefore, the desire for a local political representative and westernised democratic system separates Hong Kong from China.

Conclusions

All in all, physically, Hong Kong has retained colonial architecture and continued to use English street names. Culturally, the English language still affects the local dialect of Cantonese and also creates a melting pot of both Chinese and English cuisine. Politically, the British system of parliamentary democracy has deeply impacted the locals' desire for freedom and rights. As a result, the identity division of British, 'Hongkonger', and Chinese still exist today. As protest and instability prolong, its position at the centre of conflict between the West and the emerging China could see authority action in entrenching a Chinese identity. But despite reforms and migrations, the product of colonialism, a sense of belonging for Hong Kong citizens, would continue to grow globally in the foreseeable future.

Ryan L is an UVI Geographer. This article was adapted from his A-Level NEA.

IV Form Tiffany Y's winning competition entry to reimagine the College map
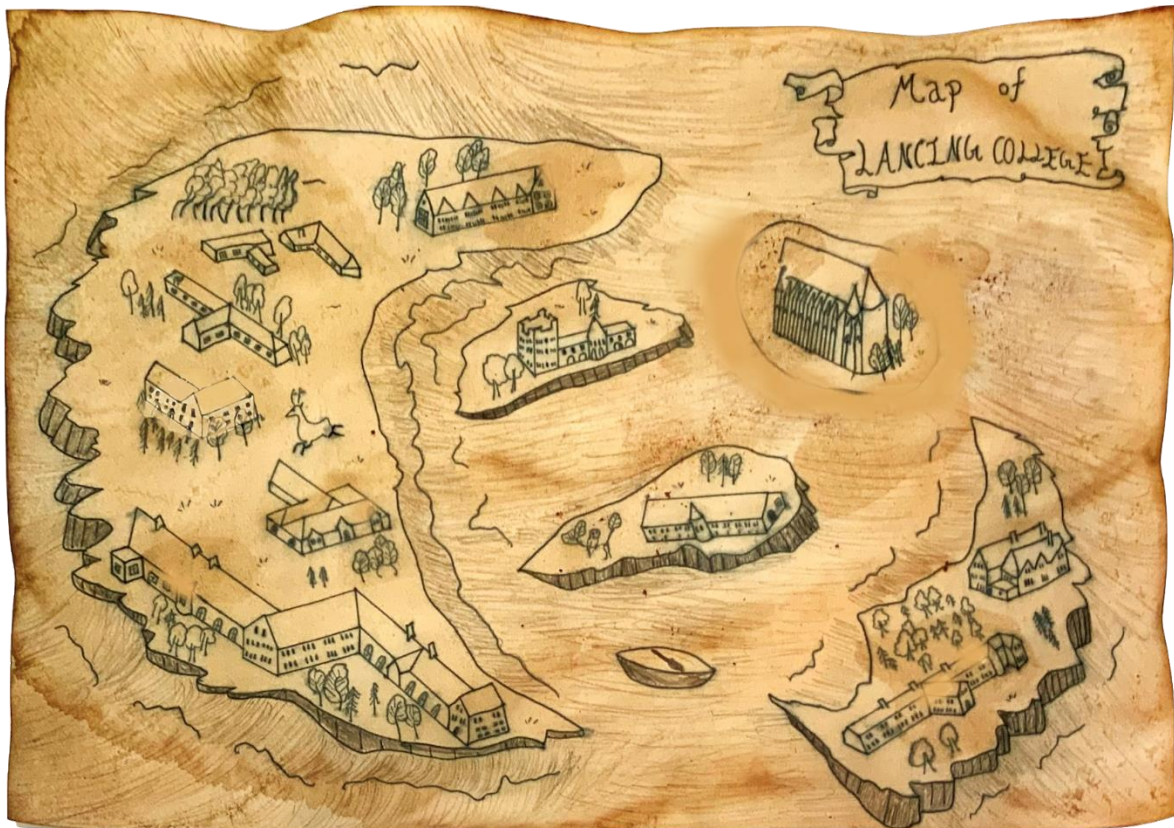
Turning the tide on the Adur

Amélie R

Upper Sixth Geographer Amélie R investigates the extent to which the tide influences key river processes along the River Adur by visiting three sites along the river's lower course. This original research was conducted as part of her A Level geography project.

The River Adur runs past Lancing College and is heavily impacted by the tide. The depositional landforms of mudflats and salt marshes shown in the arial photograph (figure 1) are caused by the presence of an estuary. At low tide, the estuary is a low energy environment; silt and clay is accumulated by flocculation (where small particles in suspension combine to form larger particles) which are then deposited in sheltered, low energy coastal environments. This process was identified by Marquez D.J.D. (2016) who suggest that that,

Figure 1: Mud flats on the Adur estuary (from Google Earth)

"flood, ebb, and wave energies drive the suspension and resuspension of sediments and affect the formation and differential settlement of (sediment)…. estuarine circulation patterns, provide an important mechanism for suspended particles to flocculate and later settle to the estuarine floor".

Figure 2: The River Adur further inland (Google Earth)

As distance inland from the estuary increases, the tidal influence of the estuary is reduced and so the process associated with that such as deposition and flocculation are also reduced. This explains why the mudflats present at site 1 and 2 (closest to Shoreham) are not present at site 3 (further inland).

Therefore river landforms are influenced by the estuary.

The width and the depth of the river Adur decreases as it gets further inland away from the estuary which could mean that the velocity is less, as a higher proportion of water is being slowed by friction with the sides and bed of the river.

Furthermore, velocity may increase closer to the estuary as more water is added via tributaries such as the Ladywell stream. This means that less water is in contact with the
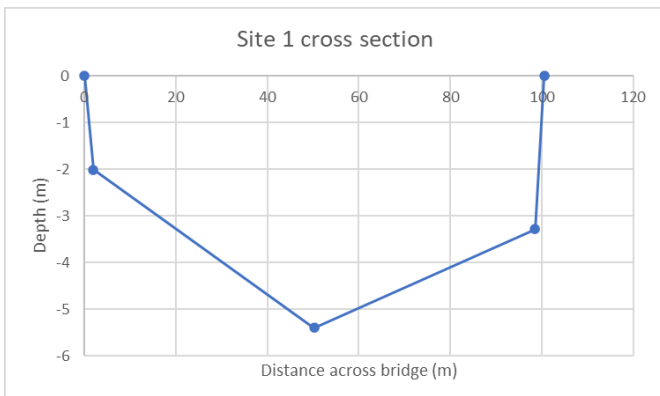
bed of the river and so there is less friction acting on the water. This can result in an increase in velocity because less energy is needed to overcome the friction acting on the water. This pattern fits with an analysis of the change in river velocity which states:

> "analysis of some of the large number of velocity measurements…. demonstrates that mean velocity generally tends to increase downstream". (Leopold, 1953).

However, where the marine-dominated and river-dominated areas meet, this could make the velocity lower than expected.

Results from my own research show that two miles inland from the estuary the velocity of the river was only 0.42 m/s, as the
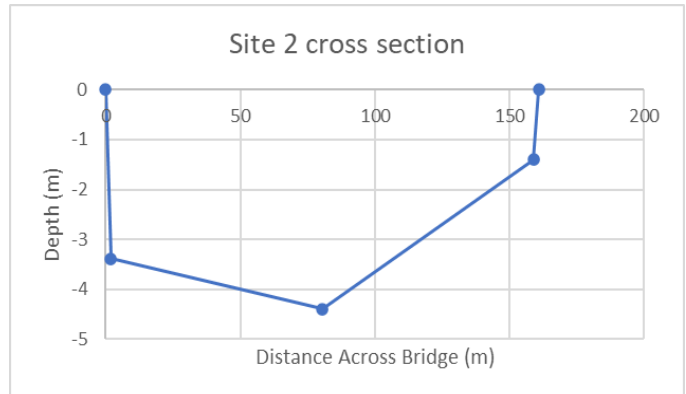
energy is mixed between the tide pushing the water one way and the river flow pushing it the other. This resulted in the overall energy being decreased. The higher velocity at site 1 close to the estuary could be caused,

> "because … tidal ranges and tidal currents increase as one goes landward from the sea, because the incoming tidal wave is compressed into a progressively smaller cross-sectional area, until friction causes them to decrease toward the tidal

limit." (Robert W. Dalrymple, Kyungsik Choi, 2006).

This cross-sectional area of the channel increases closer to the estuary (as the three graphs here show), and this may be caused by river processes. For example, further downstream, various tributary rivers join on to the river Adur, such as the Ladywell Stream, this increases the volume of water in the river and so there is an increase in erosion of the riverbed by abrasion and hydraulic action, which in turn forms a deeper channel downstream. The channel may become wider closer to the estuary due to the gradient becoming more gentle, and so lateral erosion becomes more dominant. If this was the case, then the pattern seen in the change in cross sectional area may not be due to the presence of the estuary but due to river processes rather than tidal processes.

However, another possible explanation for the pattern shown in my research is that the tidal processes which are dominant closer to the mouth of the estuary could have resulted in an increase in erosion causing the cross-sectional area of the river being greater closer to the mouth of the estuary. At high tide, the water level in the river channel will increase most significantly where the tidal processes are dominant and so more of the river channel will be exposed

Graph to show river discharge at the sample sites

River discharge (m/s³) vs Site
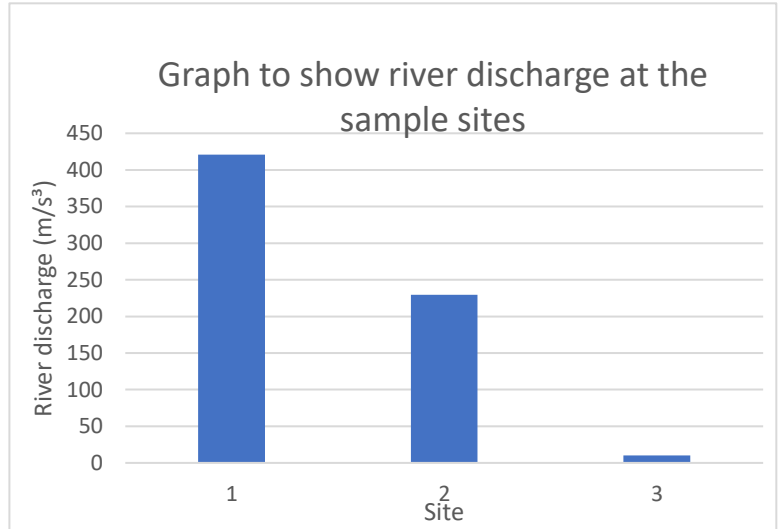
to erosional processes such as hydraulic action and abrasion resulting in a wider cross-section.

Furthermore, the gradient could become shallower due to an increase in deposition closer to the mouth of the river due to flocculation, resulting in lateral erosion becoming more dominant and so increasing the width and cross section of the river.

River discharge = cross-sectional area x velocity

My research also shows that the river discharge decreases inland as distance from the estuary increases. The bar chart shows this.

These results are linked to other findings as the river discharge is dependent on the velocity and cross-sectional area of the river: velocity decreases with distance from the mouth of the estuary, and cross-sectional area of the river also decreases with distance from the estuary. Therefore, the river discharge, (cross sectional area times velocity) is greatest closest to the mouth of the estuary.

Site 3 cross section

Depth (m) vs Distance Across Bridge (m)
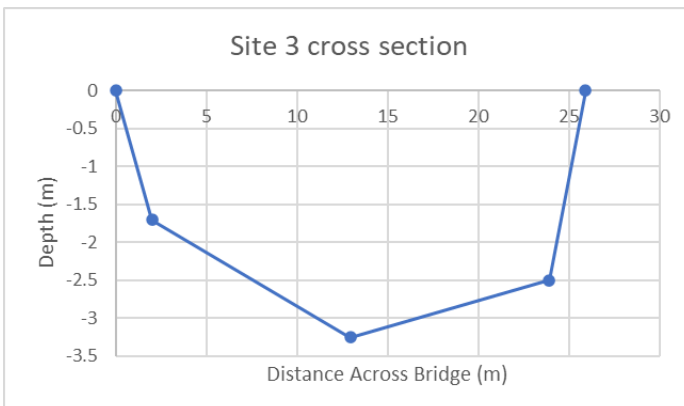
	area (m²)	velocity (m/s)	river discharge (m/s³)
site 1	404.58	1.04	420.76
site 2	546.79	0.42	229.65
site 3	69.34	0.15	10.4

Conclusions

In conclusion, the estuary impacts the magnitude of the velocity of the river. The closer to the mouth of the estuary the velocity increased. This is because tidal current speed is highest in the middle of the estuary and so the velocity is greatest in the middle of the estuary. Where the tide dominated and fluvial dominated areas of the river meet, the velocity decreases. Therefore, the River Adur fits with Robert W. Dalrymple, Kyungsik Choi (2006) model of tidal dominated estuary.

The estuary impacts the cross-sectional area of the river because it leads to deposition and flocculation as it is a low energy coastal environment. This creates a shallower river gradient closer to the mouth of the estuary which results in an increase in lateral erosion thus causing the river width and cross-sectional area to increase.

The estuary impacts the river discharge. As river discharge is the product of velocity and cross-sectional area the overall increase in both of these properties closer to the mouth of the estuary leads to an increase in river discharge.

Amélie is an UVI Geographer. This work was adapted from her A-Level NEA.

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Photo: Andy Horton.

Bahrain Bay redevelopment: A playground for the rich?

Yousif Ak

Yousif Ak investigates the changes to Bahrain Bay that he has witnessed throughout his life. This research was originally conducted as part of his A Level Geography coursework.

The development of Bahrain Bay started in July 2005, with the land reclamation process taking more than 5 years to complete. Land reclamation is the process of creating new land from the sea. In terms of the development of Bahrain Bay, this was done by mining sand, clay, and rock from the seabed and using this to construct new land in the chosen area. Following this, construction began with a 5 star hotel, residential and commercial buildings, as well as community parks and gardens.

My own research was framed by a series of key questions.

How has the area physically changed?

To investigate this I chose to compare maps using google earth pro software across a range of timescales as well as conducting a land use survey and an environmental quality assessment.
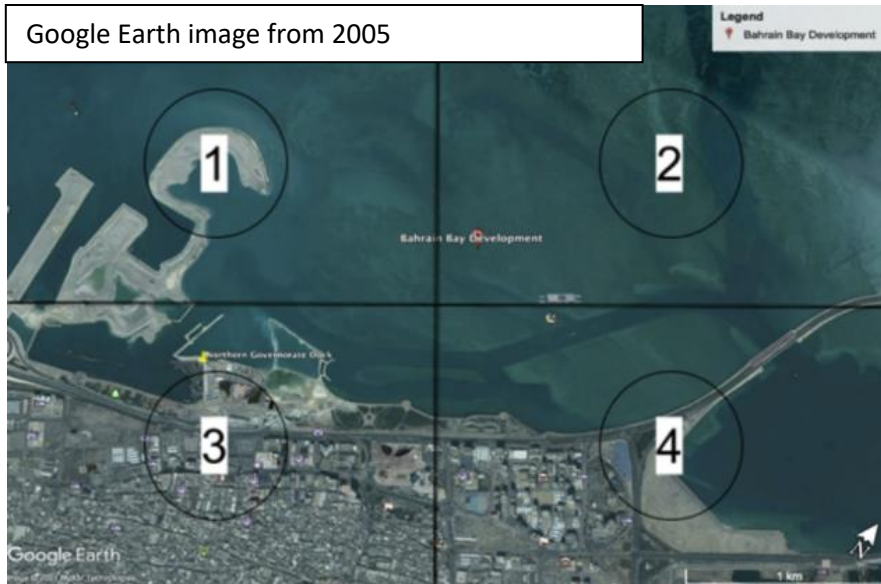
Google Earth image from 2005

done by dividing the maps into four equal subsections and comparing how the development had affected each subsection through varying timescales.

The aerial photograph shows the early stages of the development process of Bahrain Bay from 2005. Sections 3 and 4 show the northern governorate area and it's built-up urban region. The upper region of section 3 also shows the location of the northern governorate harbour - where local fishermen would dock their boats. Additionally, we can see examples of land reclamation and sand dredging in central section 1, with the development of man-made islands nearing completion. Section 2 also shows signs of the early stages of the main land reclamation process, with land being built up from the seabed. We know that the development of Bahrain Bay used sand dredging in order to build up land from the seabed and commence construction. This was done by mining sand, clay, and rock from the seabed and using this to construct new land in the chosen area. I know from my literature research; Koehnken, L. and Rintoul, M. (2018), *Impacts of Sand mining on ecosystem structure, process and biodiversity*, WWF that sand dredging can have a massive influence on local ecosystems. Sand mining can kick up silt that
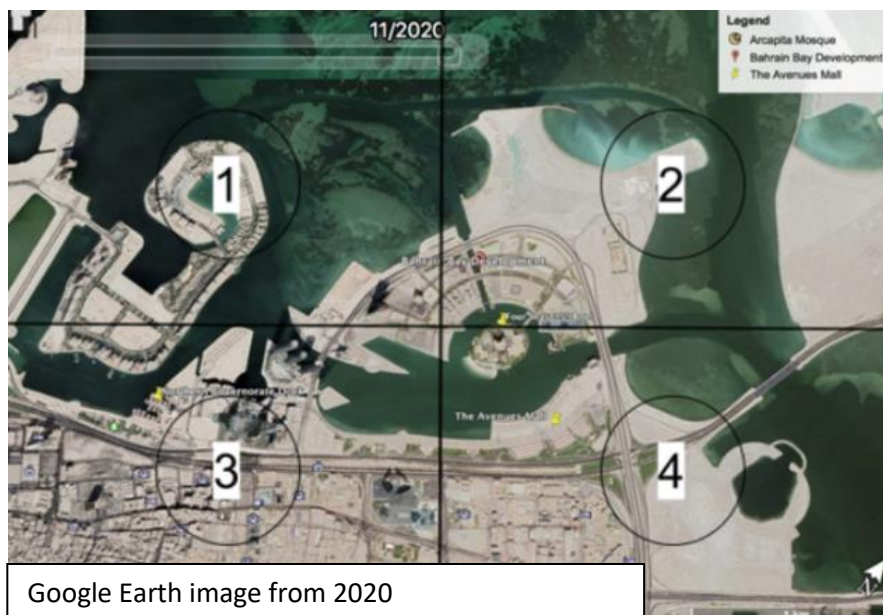
I collected this data by using the timeline function on google earth pro and then took screenshots of the maps and compared how the land had changed throughout the different stages of development. I chose to use google earth pro as it allowed me to make time-comparisons of the development as well as providing accurate place specific locations.

I chose which areas to compare within my maps using stratified sampling. This was

Google Earth image from 2020

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smothers fisheries. This suggests that a large scale reclamation project will negatively affect the local environment by damaging the local ecosystem which local fishermen rely on for their catch and livelihood.

The second aerial photograph was taken in 2020 and shows the final stage of the development process. We can see the site fully developed with waterways, roads and buildings. The dock in section 3 has been moved back to its original location. There is also evidence of parks and green space located within the development; section 4 of the figure shows a park located around the avenues shopping mall. Overall, the development itself has drastically altered the local area on a physical level through the reclamation process which in turn has affected the aquatic local ecosystem.

These results follow with what I expected to see within my hypothesis in that the development of Bahrain Bay would have many implications on the physical landscape of the local area. Whilst the question of whether these changes are positive or negative are subjective, I personally believe that the development has had a mixture of both positive and negative implications on the area. On one hand, we have seen green space and parks brought into the area which could potentially provide new habitats for species. However, I know from my literature research that the excessive amounts of land reclamation that went into this development is very likely to have damaged the aquatic ecosystem, thereby affecting local sea life by damaging their habitats. Overall, the development of Bahrain Bay has significantly changed the

local area, which in turn has affected the sense of place of the local population.

How has the development affected the local population?

My second research question focused on people. To investigate this question, I conducted a virtual interview with journalist Maurice Picow, who I found via LinkedIn, who published an article describing the impacts of sand dredging on local populations in Bahrain and how this affects their day to day life: *'Bahraini fisherman's plea for help with their catch… land reclamation and sand dredging by construction companies have directly affected their livelihood'.* The questions I asked are listed below, with the highlights from each answer.

Who has benefited from the development?
　　"I think that a large-scale development such as Bahrain Bay involves many personnel and will for sure benefit a number of key players. The investors and developers will first see financial returns as the development reaches its final completion and more businesses rent buildings and move into the area. We have already seen the new luxury Four Seasons Hotel built which is already generating income and tourism into the area. I think that this development will also benefit the middle-class locals as it will provide leisure facilities and restaurants, improving social life."

Has the development benefited the locals?
　　"We have those in the lower class who will most likely have no benefit or in the cases of the Northernate

fishermen, be at a loss from this development."

Since the development has there been a change in the quality and quantity of catch for local fishermen?

"We already know that large scale land reclamation projects such as this development have a major impact on marine life. It's not just dumping construction waste in the Persian Gulf that's killing delicate coral formations these days. Now, the fishermen are complaining that their catches are much lower than expected… The problem is land reclamation, coastal erosion and sand dredging by construction companies, according to the fishermen."

How has the finshermen's lifestyle changed before and after the development?

"The fishing industry in Bahrain has been experiencing a decline in catch for the past decade. Major land reclamation projects throughout the country combined with dumping construction waste has led to the killing of delicate coral reefs which in turn caused a decrease in quantity of catch. So in that sense, I suppose that reduced catches is something that these local fishermen have been dealing with before this development had begun."

The interview supports my hypothesis that different demographics of the population will have their sense of place changed in both positive and negative ways. Additionally, he spoke about the affects the development could have on local

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fishermen. We have previously seen the dock being relocated to aid the reclamation process and I know from my literature research that the process of sand dredging damages fisheries and reefs which act as habitats for sea life.

This further supports my hypothesis in that the lower class of society seem to be dismissed throughout the development process and as a result are disadvantaged from this project.

The word cloud was created using the full interview transcript from the journalist. The larger the word appears on the figure, the more frequent it has been mentioned. Common words include 'class', 'players', and 'income'. These are all linked in the context of who has benefited from the development. Those in higher classes will have access to the luxury resources such as five star hotels and as a result will have a more positive sense of place whereas those in lower classes are less likely to experience these facilities and therefore are more likely to have an unaffected sense of place.

My literature research has shown that developments also bring opportunities for many people by providing more jobs into the area. This can be seen in the case of Bahrain Bay with the Four Seasons Hotel as well as Avenues shopping centre, further affecting people's sense of place by changing their livelihoods.

Additionally, the journalist spoke about the local fishermen and how their sense of place could be negatively affected as a result of the development impacting their livelihood. The local dock had to be relocated in order to facilitate the reclamation process. This would have

affected the fisherman's sense of place as they were forced to work in a new area.

Overall, both my hypotheses have been supported by my data in proving that the development of Bahrain Bay has significantly affected the sense of place of the local population by affecting both the livelihood of the local population as well as through changes to the physical landscape of the area.

Yousif Ak is a UVI Geographer. This article was adapted from his A-Level NEA.

North Korea: An uncomfortable relationship with the rest of the world?

Oscar S

Oscar S has offered a contentious and fresh take on North Korea's controversial relationship with the rest of the world.

The economic and political fortunes of North East Asia have been shaped by the geographical features of the land. One central theme to the story of this region is that of North Korea and its difficult relationship with its closest neighbours. However, this does not only affect this

region - it has a significant influence on the foreign policy of global superpowers such as the United States of America, Russia and the People's Republic of China.

https://www.timemaps.com/history/korea-1960ad/

North Korea: Background

Korea was occupied by Japan from 1910 to 1945 following the First Sino-Japanese War and the Russo-Japanese War.

Following the defeat of the Japanese in the second world war the Korean peninsula was divided along the 38th parallel by the USA and North Korea was born. A rather different account from the 13th century is that Korea was created in 2333BC by The Lord of Heaven who sent his son Hwaanung to earth.

North Korea is a 'poverty stricken' country which is surprising given North Korea has a wealth of natural resources such as coal, natural gas and precious metals, unlike its neighbours South Korea and Japan who have to rely on imports. Stuck in a dictatorship, led by a morally corrupt bankrupt communist monarchy who use torture,

> "North Korea attempts to portray themselves in a positive light. The population is fed a propaganda feed that the country is strong, munificent and magnificent."

internment camps and show trials to strike fear and enforce discipline among the North Korean citizens whilst sending a message to the rest of the world that they are dangerous. Who is in charge of this corrupt country? Kim Jong-Un is the present Supreme Leader of North Korea, however it wasn't always

that way. Kim Jong-Il, the "Eternal bosom of hot love", was born on 16 February 1942 and held the post of supreme leader from 1994 until his death in 2011.

The hermit kingdom is so called because it walls itself off from the rest of the world, and with good cause. Following invasions by the Mongols, Chinese Qing dynasty, Manchurians and Japanese, North Korea was practically destroyed in the Korean war in the 1950s on the authority of General Douglas MacArthur, who said:

> "Burn it if you so desire. Not only that… but burn and destroy [frugally] as a lesson any other… towns"

The result was the deaths of 1.5 million people.

North Korea attempts to portray themselves in a positive light. The population is fed a propaganda feed that the country is strong, munificent and magnificent. They view themselves as standing up to the evil foreigners calling themselves the South Korea.

South Korea

In contrast with North Korea, South Korea is a more progressive nation. However, it is perpetually threatened by North Korean gun emplacements on the border between the nations - the South Korean capital, Seoul, is only 35 miles south of the border. Furthermore, South Korea's primarily flat landscape makes defending the country from Northern incursions more difficult. The North suffers no such issue though, being

"A war between North and South Korea would cause a large number of unwanted refugees to seek refuge in China"

protected by mountainous terrain should the South attempt a similar incursion.

North and South Korea have been intertwined in conflict for decades now following the division of the two along the Imjin-gang river, but has there been a point to this ongoing feud and

This map shows the progression of the Korean War from 1950 to 1953, starting with the invasion of South Korea by North Korea on June 25, 1950. (Attribution: Copyright Rice University, OpenStax, under CC BY 4.0 license)

who has a stake in the future of the region?

The United States

The United States plays a large part in this dispute. As a key ally to South Korea, the US needs to be seen giving support to the country, else their allies around the world, such as the UK, could lose faith in them. The US feels trapped and threatened by the ominous presence of North Korea and its support from China. The US could perhaps feel that withdrawing the 30,000 military personnel situated in South Korea would send out the wrong message, so feel obliged keep them there in the hope of maintaining peace. In September 1950, the US, leading a United Nations Force, surged into North

Korea, pushing the Northern troops (who attempted to reunite Korea following the withdrawal of American and Russian troops in 1949) back across the 38th parallel and then up almost to the Yalu River and the border with China.

China

China supports North Korea out of the fear of a unified Korea serving as a staging ground for American allied forces poised on its border. Furthermore, a war between North and South Korea would cause a large number of unwanted refugees to seek refuge in China. North Korea seems to be suspicious of most nations, barring the Chinese. However, they are oddly suspicious of Beijing, despite the fact that China supplies 84.12% of North Korea's imports and buys 84.48% of its exports according to 2014 figures from the Observatory of Economic Complexity.

Although North Korea appears to view China favourably at the moment, the larger nation definitely isn't out of the firing line. Some of North Korea's nuclear facilities are only 35 miles from the border, necessitating China to keep a close watch on North Korean activities. China's newly expanded 'Air Defence Identification Zone' in the East China Sea covers territory claimed by China, Japan, Taiwan and South Korea allowing for a layer of protection from potential threats from both North Korea and incursions from other nations.

Japan

Japan is a sea faring society with an ageing population located along the coastal regions of its four islands. A shortage of natural resources has led to aggressive Japanese expansion in the past, annexing Korea in 1910 having invaded the country repeatedly previously. This resulted in the near destruction of Korean culture, with the teaching of Korean language and history being banned. In the years following the Second World War, the US helped Japan rebuild its industry and economy (in much the same way as it did with Germany) as the support of Japan would be crucial to help contain any threats in the East, including from the then Soviet Union and China. The relationship between South Korea and Japan filled with friction, however. The threat posed by the Chinese-backed North Korea moving south beyond the 38th parallel ensures a degree of *entente cordial.* This is especially true given that North Korea has the ability to fire nuclear missiles into Tokyo, which has a population of 39 million, over the Sea of Japan. This option gives North Korea large amounts of leverage over Japan, granting it more freedom than other nations might enjoy in its place.

> "[Repeated Japanese invasions] resulted in the near destruction of Korean culture, with the teaching of Korean language and history being banned."

Conclusion

This conflict has brought many countries together and pushed many apart, showing the true colours of both sides of the face-off. When an ally is in trouble what can you do to help, and if you can't offer your aid then you need to make it seem as if you were to prevent any backlash from the media. An everlasting battle is a sensitive subject, you have to be careful when discussing these topics for the fear of creating the wrong message which can go very far in the wrong direction. These conflicts not only create a topic to discuss but they lead to a far worse
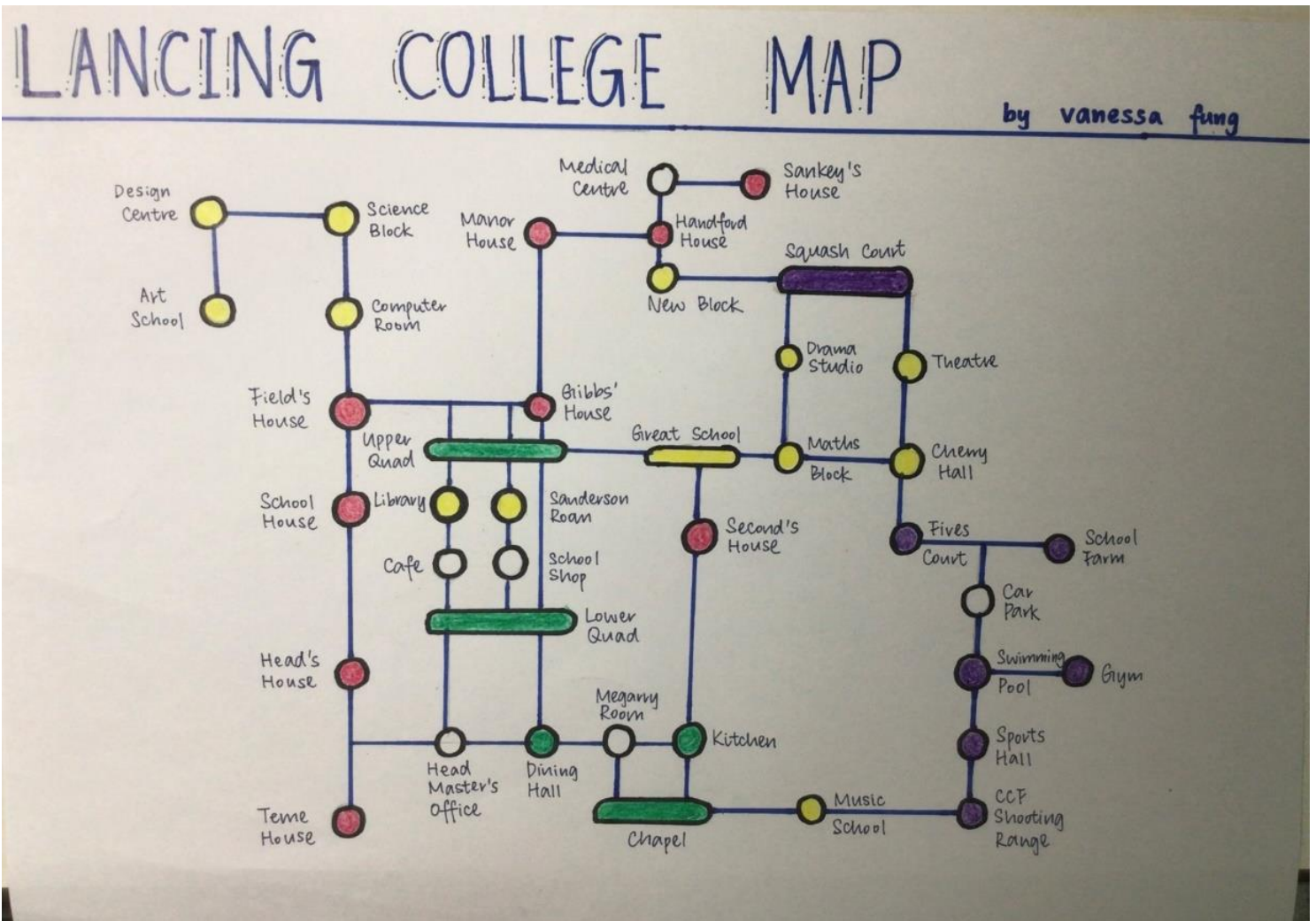
outcome, what is that outcome? That outcome could be war.

War has been an event that has destroyed countries as a whole and individuals for as long as we can remember and yet it still seems to resurface when tensions get high. War is something to avoid at all times especially in our day due to the advancements that have been made in the science of nuclear warfare. When war involved people on the frontlines fighting hand-to-hand less casualties seemed to occur. Now many first world countries host an arsenal of nuclear weapons which could destroy entire countries, or an entire continent, at any given time.

Oscar S is a V Form Geographer.

III Form Vanessa F's winning entry to the map competition saw the College depicted in the style of Beck's Underground map.

LANCING COLLEGE MAP
by vanessa fung

Design Centre
Science Block
Art School
Computer Room
Manor House
Medical Centre
Sankey's House
Handford House
New Block
Squash Court
Drama Studio
Theatre
Field's House
Gibbs' House
Upper Quad
Great School
Maths Block
Chemy Hall
School House
Library
Sanderson Room
Cafe
School Shop
Second's House
Fives Court
School Farm
Car Park
Lower Quad
Head's House
Megarry Room
Kitchen
Swimming Pool
Gym
Sports Hall
Head Master's Office
Dining Hall
Music School
CCF Shooting Range
Teme House
Chapel

North Sea oil – an outdated fossil or a necessity?

Kristy W

Fifth Form Geographer Kristy offers her insights into North Sea Oil, and the extent to which opportunities and challenges are presented.

The North Sea is located in the Atlantic Ocean, a sea area between Great Britain, Denmark, Norway, Germany, the Netherlands, Belgium and France. The sea covers approximately 570,000km^2 and contains a wide variety of species, including plankton, fish and seabirds. This makes the North Sea one of the world's most important fishing grounds. Furthermore, the Sea is rich in energy sources such as fossil fuels and

"Oil revenues have dropped by around 50 to 85% during 2020 compared to 2019."

wind power, containing 54% of the sea's oil reserves and many large wind farms.

Importance to the UK economy:

The UK was the second-largest producer of oil and gas among European countries in 2016, according to the Organization for Economic Cooperation and Development (OECD). The oil industry in the North Sea contributes £35 billion to the UK economy. More than 300 companies are involved, creating around 450,000 jobs. As such, we can assess the importance of North Sea Oil to the UK economy.

Challenges:

The price of oil resources has been declining over the years, as renewable energy production has become more and more common. Furthermore, as the quantity of oil in the North Sea decreased, so did the return on investment, as such leading to decreased investment in the industry. Hence, with the reduction of investments and income, it has become more difficult for the oil and gas industry to operate. As a result, many companies have been forced to shut down, leaving a number of oil platforms and oil rigs abandoned. This raises severe social and environmental concerns.

The International Energy Agency claims that oil revenues have dropped by around 50 to 85% during 2020 compared to 2019. Adding on, the outbreak of covid 19 in 2020 has further intensified the problem. For instance, the travel ban implied at the start of 2021, has been limiting the income of countries that are prominent exporters of oil which creates a significant rise in the unemployment rate. In Aberdeen, where most of the income relies on oil industries, the rate of unemployment has increased significantly, which is reflected by the number of people claiming unemployment related benefits - 136% in Aberdeen city as compared to only 84% in Scotland as a whole. The high unemployment rate can also lead to several problems. For instance, as the local economy declines, unemployed people have to find ways to earn money for a living and without a job, many could only resort to illegal activities or work in in roles on lower pay.

> "Environmentalists have suggested transforming the formerly damaging oil rigs into safe havens for wildlife, by turning the underwater structures into artificial reefs."

The recent low carbon footprint targets set by the government puts additional stress on the oil and gas industries, as prospecting, extraction and transportation generate large amounts of greenhouse gases. In 2017, upstream production of oil, which only includes the extraction of oil, not the burning process, produced 15.7 million tonnes of carbon dioxide accounting for 3% of the UK's total greenhouse gas emissions. The large amount of greenhouse gases produced will impact global warming and climate change, raising more environmental concerns.

Decommissioning:

Decommissioning refers to the removal of infrastructure and machines from oil production sites. The number of abandoned oil rigs has been increasing due to the decline in the amount of oil in the oil fields. Not only are these above-water abandoned oil rigs completely useless, they can impact shipping and make trade more difficult. Furthermore, leaving them submerged in the ocean can cause the metal structures to rust, increasing the risk of crude oil leaks. If this happens, it can cause significant damage to marine ecosystems and the seabed. Although short-term employment is created by the decommissioning process, the issues and effects of unemployment still remain, since the main cause of the unemployment (the closing of the oil rigs) has not been addressed properly.

Furthermore, the removal of infrastructure and machinery is extremely expensive, due

Due to the decline of the oil and gas industry, the number of jobs created by the North Sea oil and gas industry is expected to decrease to less than 40% of all energy resources. In replacement, infrastructure to generate renewable energy such as offshore wind farms are built. Wind farms are constructed offshore because wind speeds are higher out to sea than inland because of the lack of obstacles in the way of the wind. Furthermore, the construction of offshore wind farms produces comparatively few greenhouse gases in comparison to the construction of a new offshore oil rig, for example.

to the complexity of the oil rigs. Not only is it expensive, but it is also very labour intensive which requires a lot of work and time, although this does help reduce unemployment in the short run, as previously mentioned. So, should capital and time be lacking, it is challenging to remove the rigs.

Environmentalists have suggested transforming the formerly damaging oil rigs into safe havens for wildlife, by turning the underwater structures into artificial reefs. As the offshore rigs are constructed around highly biodiverse areas, the structures can provide shelter for marine wildlife. The supporting metal pylons can provide a spawning ground for fish, and the shelter provided can help to revive the population of endangered animals such as bocaccio rockfish. In addition, fishing activities are banned in oil drilling areas, which protect the fish and help combat the issue of overfishing. It is much easier than total decommissioning, and a lot cheaper than the total removal of the structures.

Furthermore, the construction of new renewable energy sources can help ease unemployment too, as jobs are created by the construction process. The transition from oil to renewable energy allows skilled workers, scientists and engineers to transfer their skills into renewable energy sectors. Based on the trend in the development of energy resources, it is very likely that there will be more investments in renewable energy to help expand the sizes and numbers of wind turbines. The end goal, for governments and private corporations, is to reduce carbon footprints - renewable energy is one of the ways to do so.

Conclusion:

In conclusion, the transition from oil to renewable energy brings both opportunities

and challenges to different stakeholders. Due to the rise of renewable energy, people involved in the oil and gas industries have been negatively impacted, whereas those investing in the renewable sector have benefited. With the decreasing trend in both oil production, prices and investments, many people face unemployment. Furthermore, the issues surrounding decommissioning have to be solved in order to stop the process from negatively impacting people. The production of oil emits huge quantities of greenhouse gases which are harmful to the environment as well. As such, renewable energy sources are seen as the way forward.

From an environmental point of view, not only does renewable energy help to combat the problem of global warming and climate change, the now abandoned oil rigs can provide spawning grounds and shelter for endangered species, further benefiting the ocean ecosystem. By looking at the North Sea, we can see how developers can make use of offshore areas, and use them as a site to generate renewable wind power. Furthermore, the construction of these offshore sites can help to reduce unemployment too. Therefore, by the closer cooperation between both corporations and governments, I believe that a better solution can be proposed in the future to help minimise the use and costs of unsustainable energy resources.

Kristy is a V Form Geographer.

III Form Ria Y's Highly Commended 'memory map' entry to the map competition.
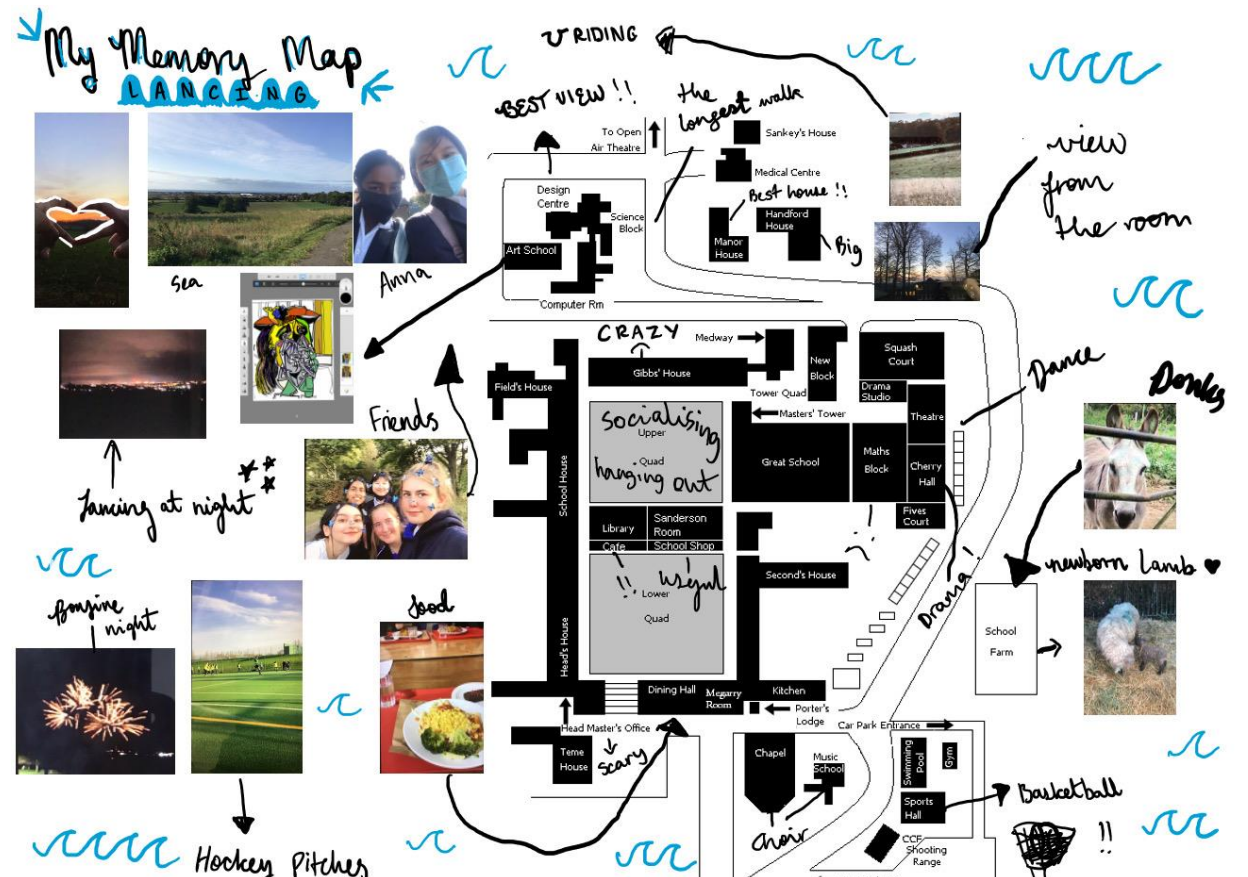
Soundscapes: How does the geography of a place influence its music?

Ben MS

Ben MS investigates the links between places and the music created there.

There are hundreds, perhaps thousands of different genres of music, each one having unique and interesting roots, some of which can be traced back millennia. To what extent does the geography of a place, both human and physical, influence the music created in, or pertaining to that place?

There are several arguments to be made for the case that place has a strong influence on the music from there, but first, a distinction between *place* and *space* needs to be made. Space is a physical area, with measurable dimensions and is characterised by its physical features, such as walls, the relief of the land, and average temperatures to name but a few. A *place*, however, is more than just a physical area. A place has characteristics that are more than just its climate or morphology. A place brings with it completely subjective connotations, not merely the hard data about its wind direction. For example, as space, 10 Downing Street is merely one house among many situated on Downing Street. However, as a place, 10 Downing Street is the home of the Prime Minister, and can perhaps be viewed as the centre of British Government.

"Yodelling is hypothesised to have originally been a method of communicating between distant mountain villages high in the mountains"

Dr. Daithí Kearney argues in his paper 'Listening for geography' that "localised music genres occupy particular spaces that help shape the sounds produced", implying that place can shape localised music. Indeed, an excellent example of this is the Alpine tradition of Yodelling. Yodelling is thought to have originated in Africa over 10 millennia ago, at the beginning of human civilisation, but it has been most extensively utilised in the Central Alps, primarily Austria and Switzerland. Yodelling is hypothesised to have originally been a method of communicating between distant mountain villages high in the mountains and, as such, needed to be both loud and recognisable over long distances. Here, the mountainous landscape shaped the yodel and has continued to do so to the present day.

The traditional Indonesian art of Gamelan music is another excellent example of how place shapes music - a Gamelan is a traditional Indonesian 'Orchestra', for want

of a better term. Taking Javanese Gamelan here as an example, two distinct tuning methods are used to tune the mainly percussive instruments used in these 'orchestras' - Sléndro and Pélog. Sléndro is a pentatonic scale, meaning it is comprised of 5 different notes. However, the intervals between these notes vary between Gamelan, and instruments are often tuned slightly differently to create micro-tonal differences which have been described as creating a 'shimmering' effect. This is usually used in religious ceremonies, to symbolise a God or Godhood. Due to the lack of ability, in the past, of the Javanese people to uniformly construct and tune instruments, each Gamelan has its own unique sound and has become a distinct part of the culture of the islands. The entire culture of Java, and indeed Indonesia as a whole, has been influenced by the geographical constraints which prevented the uniform construction and tuning of instruments!

Blues music in the USA is further evidence that place shapes the evolution of sound - Blues is thought to have originated in traditional African music migrating to the United States via. the trans-Atlantic slave trade. It is characterised by the originally African themes of call and response, and the use of instruments inspired by traditional West African instruments, notably the Banjo - likely developed from the West African Xalam or Akonting instruments. These traditional African themes merged with Christian hymns, most notably those by Isaac Watts, to create two distinct genres - Gospel music and Blues. Here, the traditional African music imported into America by slaves evolved in the different landscape of the Deep South, changing in response to the different places the slaves found themselves in.

While we have seen that place shapes music, can it work the other way around? Can music shape place? Dr. Ray Hudson believes that "music… plays a unique and often hidden role in the production of a place." He goes on to say, in his paper

'Music, Identity and Place', that "The dynamic interrelationship between music and place suggests that music plays a very particular and sensuous role in placemaking." Indeed, this is evidenced all around the world. In the words of Barbara Eifler, "the groups making and presenting usic are the often hidden but indispensable ingredient in [creating] a successful place".3 Therefore, music is not only a component of place-making but could be seen as an integral part of the process of making a place. Perhaps the most telling indicator of this is once again from Dr. Kearney, when he notes that "music, and music-making, construct, rather than merely reflect, places".

Music carries an integral role in how we perceive place. Take, for example, Elvis Presley's song 'Viva Las Vegas; the lyrics present the view that Vegas is a shining city, a place to get rich and be surrounded by beautiful women. Yet the reality is, Vegas is just a normal city, with all the issues that come along with it. Homelessness, for example, in Las Vegas is rampant - with 1.2% of the population estimated to be homeless in Clark County, in comparison to 0.17% across the United States on average.4,5 The common view of Las Vegas is that it is the perfect tourist destination - 5-star hotels, lots to do, and beautiful buildings, among other things. This image is, in part, due to the perception of place influenced in informal ways - i.e. music, television, books, art - anything which isn't official and doesn't contain survey data, like a census. Informal representations of place have warped the image of this city to look more enticing than it is.

We have seen that place can influence music, and that music can influence place.

The question, therefore, which needs to be asked next is whether this turns into a self-perpetuating cycle? Can music influence the perception of a place, changing it so that the next songs written about it are different, which then emphasises this certain aspect of the place even more? For example, using 'Viva las Vegas' again, could this song have changed people's perception of Las Vegas, then causing other artists to write similar songs further reinforcing the positive image perpetuated by Elvis?

Logic would dictate that yes, this is the case, but it is extremely difficult to find any real-world evidence of this. Although there is an overwhelmingly positive perception of Las Vegas amongst informal media, this is not necessarily an indication that a cycle of reinforcement is occurring. Perhaps the fact that Las Vegas is generally perceived to be an excellent tourist destination, and an appealing city could count as evidence towards the fact, but all this is circumstantial and inconclusive. The most probable answer is that yes, this cycle does have an effect on the perception of place, but given the lack of evidence for it, it is impossible to answer conclusively.

In conclusion, therefore, we have seen that the geography of a place can influence its music, but that music can also influence the perception of that place. This can perhaps lead to a change in future music about that place, creating a positive feedback system, where each change causes a bigger change in the future. There is only circumstantial evidence for this, however, so it cannot be proven.

Ben MS is a Lower Sixth Geographer and a member of the Lancing Geographer Editorial Board.

Researching 'Funky' Geographies: Rebranding in Shoreditch

Abby H

In this piece of original research, Abby H reports on recent changes to Shoreditch in London. This research was part of her A Level geography coursework.

The focus of my research is the question **'How successful is the rebranding of Shoreditch?'** I have chosen this because I am interested in finding out how the redevelopment of Shoreditch has changed people's perception of the town and if the rebranding of the area was worthwhile.
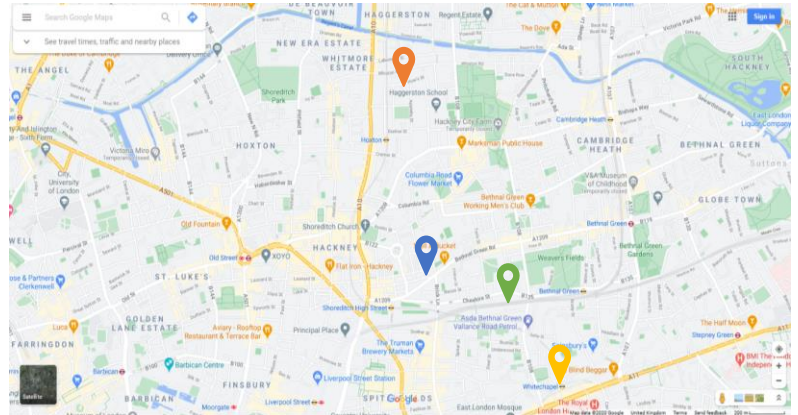
Methodology:

Environmental quality survey

1. I stood and did a 360 scope of the surrounding area enabling me to get a realistic 'feel' of the place. I made sure to not only look around but also listen to the surrounding area.

2. I then answered the Environmental quality I repeated this four times per category and there were four categories which were: Buildings, traffic, Open space and general quality.

3. Then based on my ratings, I added up categories score to find the total environmental quality survey score.

4. I did this in four locations around Shoreditch.

Environmental quality survey for urban areas

- = Site A: Shoreditch Park
- = Site B: Shoreditch Tube Station
- = Site C: Shoreditch High Street
- = Site D: Brick Lane

1. For this part of my method, I used another environmental quality index, however this one was specific to urban areas

2. I followed a similar method to the previous survey, however, rather than a bipolar scale, the second questionnaire asked me to pick a number based upon how strongly I agreed with a statement.

Internet Survey

Because Covid-19 I was unable to do a questionnaire to locals in Shoreditch.

a. I created a Survey monkey based upon the 'What Makes a Great Place Wheel' by PPS, particularly the 'sociability' section of this wheel.

b. I uploaded the survey to various Facebook groups associated with Shoreditch, such as 'Memories of Shoreditch and Hoxton' and 'Mums of Shoreditch' I uploaded the survey to 4 different groups in order to obtain a wide variety of people in my sample.

c. I used the questions in my survey such as:

- On a scale of 1-10 (1 being low, 10 being high) how far do you agree with the statement 'I feel safe walking alone at night in Shoreditch'?

- On a scale of 1-10 (1 being low, 10 being high) how far do you agree with the statement 'I would recommend living in Shoreditch'.

- On a scale of 1-10 (1 being low, 10 being high) how far do you agree with the statement 'I think Shoreditch is a diverse place.'

- On a scale of 1-10 (1 being low, 10 being high) how far do you agree with the statement 'I think Shoreditch has a community atmosphere.'

- What word do you think best describes Shoreditch?

Results.

What word describes Shoreditch? This data is taken from my online survey of which I got 40 responses.

My results show that people felt safe. This could be because of good street lighting, making people feel more visible and therefore less vulnerable. Also, being a populated area may make people feel more at ease due to the busy nature of the streets.

This data is very encouraging for Shoreditch as if people feel safe they are more likely to go out and be social and use the facilities within the town such as restaurants, parks and joining clubs. This means people will encourage the growth of the area.

'I would recommend living in Shoreditch'

number of people

8 | 2 | 0 | 0 | 8 | 2 | 2 | 8 | 2 | 8

agreement with the statement

'I feel safe walking alone at night'

number of people

4 | 0 | 2 | 2 | 10 | 4 | 2 | 8 | 4 | 4

agreement with the statement
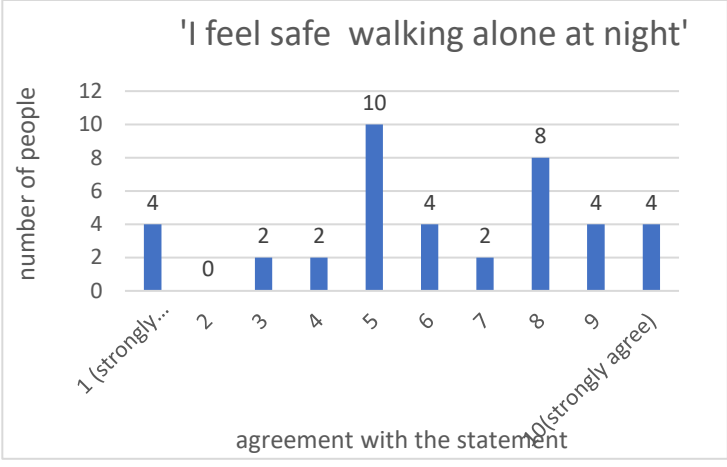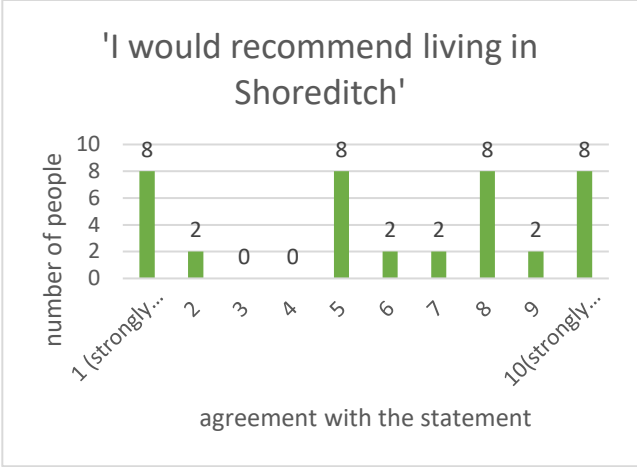
We can see that 55% of participants are likely to agree with the statement (22), disagree (10) and unsure (8).

The word cloud provides a visual snapshot of how people view Shoreditch. The larger the word is the more people described Shoreditch in that way. We can see from the word cloud that most people think that Shoreditch is 'trendy' 'hipster' 'fun' and 'funky'. These were the most popular adjectives, and all these words describe Shoreditch as a positive place. This data gives us a snapshot to people's opinion and we can see that overall the majority have a positive perception of Shoreditch. However, this is not a unanimous opinion, with some describing Shoreditch as 'a dump' and 'overcrowded' reflecting a negative opinion.

Photographic evidence

For this section of my method I took photos at each of my study sights where I was conducting my environmental quality survey.

Bright lights make the station more welcoming and identifiable

Modern

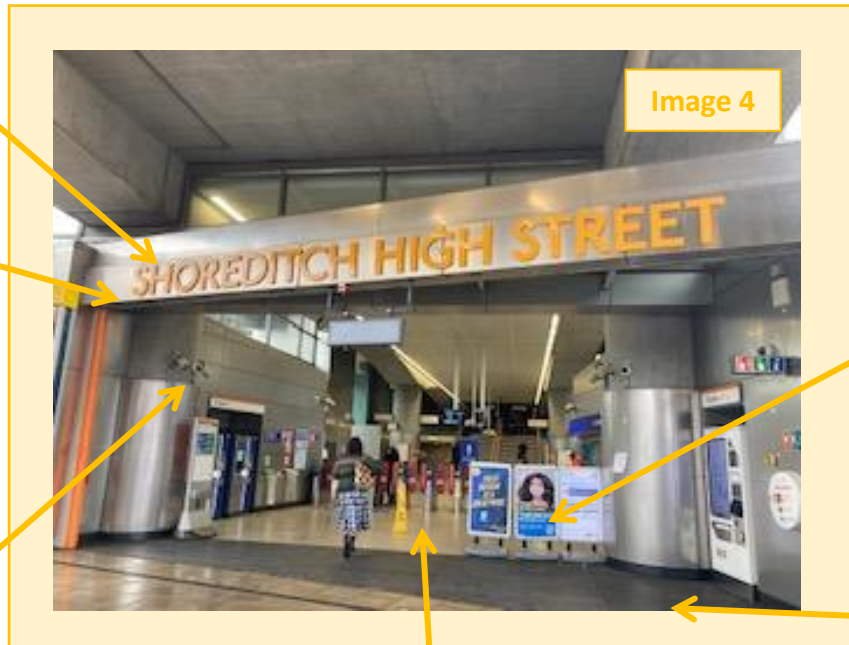**CCTV increases the safety of the station and contributes to crime reduction**

Image 4

Clear promotion of mask wearing and following COVID-19 guidelines.

New build

Clean and well maintained

Image 5

Here we can see the difference between an older building (The Crown and Shuttle pub) and the construction of a new building

No cars parked. More space for pedestrians Encourages people to take public transport rather than

No litter

Furthermore, the question 'Would you recommend living in Shoreditch' which is question 2 in my questionnaire was used to answer this question with the assumption that if people think positively about Shoreditch and enjoy living/spending time there then they are likely to recommend the area to others. However, my results showed an even split of opinions. The mode answer was 1, 5, and 10 out of 10 showing an even split. Therefore, we can conclude that people may like Shoreditch, however do not view it as a desirable place to live.

We can see from the environmental quality surveys that Shoreditch, scored very highly within the different categories. Although the quality fluctuates between different areas in Shoreditch the average scores were high. Therefore we can conclude that the rebranding was sustainable and environmentally friendly.

We can also see from the photographs I took, evidence that Shoreditch is promoting a

greener future. For example, recycling bins and the encouragement of using more sustainable modes of transport which is shown in the images where we can see people either using bikes or places to safely store bikes.

A rebranding success?

We can see from the online questionnaire that the public feel safe in Shoreditch and frequently use the facilities on offer in Shoreditch such as public parks, local restaurants and taking part in clubs/activities. This shows us that the rebranding has been successful as I based my questionnaire questions on PPS's 'What makes a great place' wheel. Shoreditch scored highly on the four main attributes (sociability, uses and activities, comfort and image, access, and linkages) shown from the high scoring answers to my questions such as 'Do you think Shoreditch is a Diverse place?' which had a mode rating of 10/10.

However, I don't think Shoreditch's rebranding was as simple as evolving from an industrial to post-industrial economy. Due to Shoreditch's location of being in London, the area was already built up and industrialised. Instead, Shoreditch's rebranding focused on making the area more clean, environmentally friendly, accessible, modern, and most importantly desirable to live in and visit.

This study has drawn some clear conclusions about how successful Shoreditch's rebranding has been, but several evaluative points can be made. Firstly, given time and covid restrictions it was difficult to survey the whole of Shoreditch accurately. If I were to do my research again, I would collect more data throughout the year to obtain more accurate data. The information I collected was accurate, however was

collected once on a weekday between 11am and 4pm. Therefore, any conclusions drawn from my results are time and place specific and therefore my conclusions are partial and tentative. To combat this it would be useful to travel to Shoreditch frequently throughout the year, alternating between weekdays and weekends in order to make conclusions that are more relevant generalisable.

A further limitation in my study was the lack of in depth, qualitative data. Due to Covid-19 restrictions I was unable to safely interact with the public face to face. Therefore, I used an online survey to collect evidence. Although this provided some valid data, it meant I was unable to ask follow-up questions and the questionnaire contained only closed questions, most of which were multiple choice. To improve this, next time I would go to Shoreditch and ask people face to face.

Abby H is a UVI Geographer. This article is adapted from her A-Level NEA.

Born to be Wild? Extract from 'The Truth about Wolves'

Tara HB

Fourth Form Geographer Tara HB sets out the debate about the reintroduction of Wolves to Colorado, USA.

Throughout history, the wolf has been censured by scandalous lies ranging from rabid killer to man-eater, and everything in between. Condemned across cultures, this apparent barbarian acquired its reputation as a savage beast way back in ancient times. These perennial claims have lasted far into the 21st Century but are now being challenged by views that recognise the benefits wolves can have for the environment. Everybody seems to have a view and there doesn't appear to be any middle ground. Is it time to rethink our branding of *Canis lupus*?

One of the largest controversies is the debate surrounding wolf reintroduction, the deliberate release of a species into the wild. For thousands of years, humans have done this with the purpose of pest control but

reintroducing for conservation is a much newer practice. "The goal of species reintroduction," Wikipedia says, "is to establish a healthy, genetically diverse, self-sustaining population to an area where it has been exterminated".

With strong opinions on both sides of the debate, this idea has been the spark for a raging fire of articles, controversies and petitions. The debate in Colorado, USA, is currently one of the most substantial. "If Coloradans are willing to embrace an honest portrayal of the grey wolf," says Montana State senator and member of the Ted Turner Endangered Species Fund, Mike Phillips, in an interview, "they will conclude that coexisting with them is a relatively straightforward affair that requires only a modicum of accommodation." Phillips has been on the front line in the reintroduction efforts in Colorado for decades and intends to connect the northern and southern packs through their protection in the state.

One point that that is continually brought up in favour of the wolf is the evidence that restoring wolves in the mountains of Colorado could eliminate a 'missing link' between related populations separated by geography. According to Spencer McKee,

Director of Audience Development for OutThere Colorado, "the grey wolf species range currently stretches the extent of the Rocky Mountains, from Canada to the Mexican border, with one exception – Colorado."

Filling this gap along the Western Slope of the state could benefit the entire ecosystem. A restoration could "trigger a ripple of benefits among wildlife, plants, and other organisms and restore ecosystem balance."

> A restoration could "trigger a ripple of benefits among wildlife, plants, and other organisms and restore ecosystem balance."

All of this could be recreated with the restoration of Colorado's wolves, but it is vital that the drawbacks of such an action should be considered. There will be inevitable consequences for allowing a large predator to roam free whichever way you slice it, as these must be acknowledged.

The 'Stop the Wolf' coalition is one of the main bodies of protestors fighting against the wolf's return. The alliance consists of sheep and cattle associations, hunting groups and, despite not officially backing it, many of the country's farm units as members of the Colorado Farm Bureau. Part of their movement is to educate the public about many diseases carried by wolves, such as the hydatid, or grey wolf, disease. This is true. Post-Independent journalist, Thomas Phippen, affirms that wolves are "known carriers of *E. granulosus*, a tapeworm that can be transferred to other canines and even humans, with deadly results." Wolves can also transfer rabies, listeriosis, brucellosis, deerfly fever, foot and mouth disease and anthrax. Similarly, a study in the former Soviet Union found a 100% increase

in cestode infections for moose and wild boar with every successful litter of wolves born. The study determines that the rate of disease in prey animals is lower in the absence of the wolf. Clearly, the arrival of wolves into the area will not be as straightforward as Phillips predicted.

Elk herds struggle with population decrease as a result of predation by wolves. Stop the Wolf presents compelling evidence in this direction, proclaiming that southwest Coloradan herds are already struggling with low numbers: "Researchers are working to find the cause of poor calf recruitment and low elk numbers. A forced reintroduction of wolves would be catastrophic to this work and the established elk and deer herds in the area."

However, not all of Colorado is experiencing this downturn. McKee writes that, "the presence of wolves would help to restore a more natural method of population control among Colorado's big game". Most of the prey falls to human hunters as opposed to natural predators, with a hefty 41,900 elk annihilated during the hunting season of 2015.

Arguably, wolves taking back control over prey populations has its benefits. Previously, we glanced at the maladies wolves can inflict in other species, but there are plenty that they can *prevent*, too. As effective at population control as we are, "Human hunters tend to seek out healthier members of an animal population, thus stunting the overall health of an animal group," states McKee. "Wolves,

on the other hand, tend to target weaker members of a herd, in turn, making the herd stronger overall."

Wolf reintroduction can be economically advantageous. "Wolf-inspired tourism is also a reason why some support the reintroduction of wolves in Colorado," McKee says. "One 2011 article published by *My Yellowstone Park* indicates that wolf introduction in the Yellowstone area boosted the local economy by $5 million per year." The money drawn in through travel costs can be supremely valuable to certain places - especially those which struggle with low economic income.

Financially, wolf reintroduction can, in some cases, be detrimental. "A forced introduction of wolves to Colorado would cost untold amounts of taxpayer dollars, redirect already limited wildlife management resources and would have a significant negative economic impact to the state," asserts Blake Henning, RMEF chief conservation officer of the Stop the Wolf coalition. Moreover, the money is the leading factor in the sustainability of some communities. The Coloradan hunting economy brings in $919 million per year and much of this money is administered remote towns in the state. These small towns rely on this income to exist. "Some are concerned that if wolves are reintroduced, they'll reduce the population of big game, thus reduce the hunting appeal of small rural towns in the Centennial State," says McKee. Along with this, wolves

> "Forced wolf reintroduction is not only a disastrous idea that will impact our wildlife, livestock and Colorado's growing population… but it's also not fair on the wolves."

are known killers of horses. Stop the Wolf mentions how horses, as well as being mere pets, are also investments with extensive effort and money put into their training. "The loss of a horse to wolves for a family can be devastating, not just emotionally but economically," the coalition points out. It is clear that many people will suffer significant losses if wolves are to be introduced into certain territory, making it difficult to side with one view. Either we prioritise the needs of the people or give more weight to the affairs of the ecosystem and herd stability. The presence of convincing arguments on both sides of the reintroduction debate in Colorado makes it very difficult to come to a decision. I can see why this ongoing quarrel sparked such persistent animosity between the two sides.

Some argue that, even if wolves could have slotted back into the ecosystem once, the landscape is far too changed for them to come back now. "It is one thing if wolves naturally return to Colorado," RMEF president and CEO, Kyle Weaver, from Stop the Wolf explains, "but it is something completely different if they are artificially placed on the landscape to complicate a system that is already complicated by human population and development". Richard Connell, who is Stop the Wolf's secretary for the coalition board, agrees in Phippen's article that the state is not a suitable area. "The state has less than a third of the combined land area of Wyoming, Idaho and Montana, and more than double

the amount of people, many who live in semi-rural areas," he says. This would prove problematic for the wolves, too, as they deserve to be wild and free, away from human contact. "Forced wolf reintroduction is not only a disastrous idea that will impact our wildlife, livestock and Colorado's growing population," Stop the Wolf asserts, "but it's also not fair on the wolves."

In spite of what has been established, the question on the danger of wolf attacks still remains: is their presence worth the risk? Rare as they are, these instances are highly unlikely, but are not 100% impossible. A small risk means barely any people will die from a wolf attack - but how many is *too many*? Would you still assume an almost negligible casualty count was reasonable if one of the victims was someone you love? Drawing the line

> Much of what we regard as 'true' can be distorted into 'good' or 'bad' by the way it is represented.

between acceptable and unacceptable is no easy task. Without data or evidence, we cannot even *attempt* to set down that divide without some sort of rebuttal jumping up in our faces. I mean, what value do you place on a human life? Perhaps we should rid ourselves of all the wild wolves as, even if the risk *is* low, it is still there to strike out at fellow humans.

Then again, dogs are known culprits of human killings, causing 25,000 deaths each year. So are cars, trains, elevators, and electricity, with traffic-related incidents causing around 1,250,000 deaths per annum. Yet still we accept them! It seems bizarre that we allow such everyday commodities like vehicles and pooches into our lives but continue to, in the words of zoologist, presenter, author and producer, Lucy Cooke, throw our thesauruses at the wolf "in a

frenzy of unflattering adjectives". Besides, how many wolves equals a human? Can you even get a good answer to that? Why ban these animals when there are far more dangerous things in our everyday lives that we should be focusing on?

Ultimately, the bottom line is politics. What the truth is, or, at least, what we are made to *think* the truth is, is often orchestrated by higher powers. Of course, it is always great to know the truth, but you are not going to get very far if people cannot see it. Much of what we regard as 'true' can be distorted into 'good' or 'bad' by the way it is represented. If people see you killing cute, baby badgers, what would they think? What if they then saw a wolf slaughtering an innocent little three-year-old? People can go from defending nature to fighting it in an instant and it all depends on what they are shown. Politicians have great power in the ways of argument and can distort information as they please in order to get their way. Influential, authoritative and persuasive, these people can twist the truth to their own ends. Sometimes, knowing the truth isn't enough.

Tara HB is a IV Form Geographer. This article is an extract from a much larger piece of work, 'The Truth about wolves' which can be read here: https://lancingedu-my.sharepoint.com/:w:/g/personal/19hodgkins bleaset_lancing_org_uk/EXXNB7pl3C9DolqOIQq YpVEB6g17mMKIDVtu-APTqNK87g?e=pkSKZt

Running dry: The Hong Kong Water crisis

Ian L and James G

In the second of our articles on Hong Kong, Ian and James have explored another contemporary issue related to Hong Kong, their home country. As they discuss, water is an increasingly scarce resource.

Geography of Hong Kong

Hong Kong has a total area of 1,108 km2 of which 3.16% is water. There are around 60 islands in Hong Kong, the largest of which by area is Lantau Island which is located southwest of the main peninsula. Rainfall is abundant in Hong Kong. The city averages around 2,400 millimetres per year.

Sources of water in Hong Kong

Hong Kong's two main sources of water are rainfall from natural catchments and Dongjiang water from Guangdong Province. Rainfall from natural catchments accounts for 20% of the source of water in Hong Kong. An example of it is the Jubilee Reservoir (also known as the Shing Mun Reservoir). The reservoir catches water from nearby drainage basins and provides water to the citizens nearby in Shatin. The main source of water in Hong Kong which takes up to 80% is the imported water from Dongjiang. The government pays Dongjiang water for Hong Kong citizens and stores it in the Plover Cove Reservoir and the High Island Reservoir (the photo shows the High Island Reservoir)

Water consumption in Hong Kong

Hong Kong as a global financial hub uses a massive 1000 million cubic meters every year. More than 70% of Hong Kong's water is used by industry and services, particularly the textile, metal-working and electronics sectors in manufacturing, hotels and restaurants. The city also has no intention to

minimise the use of water in coming years and continues to be one of the most water wasting places on the planet.

A series of water crises in Hong Kong in the 20th century

Hong Kong's largest water crisis occurred in 1963-1964, when water was delivered only once every 4 days for 4 hours. This was due to massive economic growth during this time outpacing infrastructure development, and the government looked to other measures to conserve water and increase supply, which they did through importing water from mainland China. The annual DongJiang water supply has supplied 80% of HK's water demand since the late 1990s. Hong Kong has historically faced water challenges, due to its few natural lakes and rivers, and inaccessible groundwater supply due to granite bedrock being the primary rock in most of the territory. To combat Hong Kong's growing demand for water, seawater is used for flushing toilets, and Hong Kong also utilises water treatment plants. Until 1964, water rationing occurred more than 300 days per year in Hong Kong, and this all changed once the government introduced seawater flushing, constructed large seawater reservoirs, and most importantly, started water imports from the mainland.

"The intense political tensions between Hong Kong and China also makes the city Hong Kong extremely vulnerable when the Mainland decides to cut the water supply to Hong Kong."

Colonial government response to the water crisis

Hong Kong's first response to the water crisis was the unpopular introduction of seawater flushing. In the 1960s, legislation was passed to promote seawater flushing in houses, and they increased investment into this separate sewage network. This was unpopular due to the need to build additional pipes, further increasing the cost of housing, but by 1999, the number of conforming households was 79%, meaning the programme was effective.

Another strategy for combating water shortages was the construction of freshwater reservoirs in the sea. The government had already created one freshwater reservoir before the water crisis, the Shek Pik reservoir that was completed in 1963. This reservoir was a freshwater store that intercepted surface runoff and stopped the freshwater from being lost to the sea. After the water crisis, two larger reservoirs were created, the Plover Cove reservoir and the High Island reservoir.

The need for water rationing of residential users was finally overcome in 1982, primarily due to water imports in the city. In 1960, Hong Kong first began importing water from mainland China, through the Dongjiang water supply scheme. The system includes a pipeline from Dongguan to a reservoir in Shenzhen, a city that borders Hong Kong. Water imports from the pearl river has also

drastically increased to keep up with demand for the field due to population growth, and lifestyle changes, and has increased from 23 million cubic meters per

year under a 1960s agreement, to 1100million cubic meters per year under a 1989 agreement. This accounted for 70% of Hong Kong's water supply in 1991, which was seen as a threat to water security in the region. China has never exercised its control over the pipelines for political gain, and

Year	Annual ceiling water rice (HK$ mil)	Change	Unit rate for DJ water conserved (HK$/m³)
2021	4,885.53	+1.33%	0.300
2022	4,950.51	+1.33%	0.304
2023	5,016.35	+1.33%	0.308

Hong Kong paid approximately 4 billion HKD for this service. Desalination plants have also been created and tested in the region, but have never yielded more benefits than using pipelines. A large desalination plant was

commissioned on Lok on Pai in 1975 but was decommissioned in 1981 as its use was more

expensive than importing water. Another desalination plant was created in 2004, this

time utilizing different extraction techniques, but the plant only lasted one year due to similar issues. Desalination is seen as a future supply of water for Hong Kong, but the technology is not cost effective yet. As the price of imported water increased from $1 to $3 per cubic meter, the Hong Kong government has ordered a 50,000 cubic meter per day desalination plant to be built. This will reduce the environmental damage for the Dongguan area, and reduce the risk of droughts along the pear river, but desalination plants typically damage the habitats of sea life, and Hong Kong's famous pink dolphins are already under serious threat due to land reclamation.

Up to date water problems in Hong Kong

The first water problem in Hong Kong is the overconsumption of water in Hong Kong.

This is because the Hong Kong government bought water from Mainland China and provides a generous subsidy to all Hong Kong residents. This makes the residents have less awareness in saving up water while some do not even recognise the water problems they face. The table below shows the huge prices of imported Dongjiang water China charges on Hong Kong.

The second water problem in Hong Kong is the over-reliance of Dongjiang water from Mainland China. As mentioned in the introduction part, the city depends heavily on the expensive Dongjiang water from Mainland China. This over-reliance on Dongjiang water will have huge effects on Hong Kong when there is an emergency case of water shortage. And indeed, in recent years, the Dongjiang water flow decreases at a steady rate and the Dongjiang water also becomes more polluted due to the increased number of factories along the middle part of the tributaries near Guangzhou. In addition, the intense political tensions between Hong Kong and China also makes the city Hong Kong extremely vulnerable when the Mainland decides to cut the water supply to Hong Kong. The city will definitely be in a water crisis if the Dongjiang water has a sharp decrease in supply.

Towards sustainable water use

We highly recommend the Hong Kong government take advantage of the successful formula Singapore demonstrated in their water revolution in the recent decades. Hong Kong and Singapore are often compared as Asia's two biggest financial hubs and both places have multiple similar identities and characteristics. Singapore

collects excess rainwater after sudden and heavy rains by building an underground detention tank and more drains and diversion canals. The engineers also designed a large amount of rain gardens and permeable land surfaces among the country. This hugely increased the local catchment water area. This catchment area now reaches two thirds of the total land of Singapore. However, Hong Kong does not collect excess rainwater as much, the government even decided to release excess water to the sea and river nearby instead of storing them up for further use. The Singapore government also introduced NEWater to their citizens. NEWater is water purified from sewage using advanced technology. It is mainly for industrial use. During dry periods, it is supplied as tap water after treatment. The Hong Kong government should also adopt these clever and creative ideas to achieve a sustainable water supply to the Hong Kong citizens. These sustainable and environmentally friendly methods of managing water problems are indeed an inspiration to many places.

Ian L and James G are LVI Geographers and on the Lancing Geographer Editorial Board.

Geographical Journeys: Where can Geography take you?

Noah S

In this article, Noah S caught up with two OLs who left Lancing College to study Geography at University to find out how the subject has shaped their life and career.

ALISON MARSHALL OL. 1987

1. Where and what did you study?

"Emmanual College, Cambridge for my first degree in Geography. Subsequently I did a Masters in Rural Development at Sussex University, Brighton, then an LLM (Master in Law) focused on Human Rights at Birkbeck, University of London and then an MSc in NGO Management at Cass Business School, University of London."

2. What made you choose to study that course?

"I chose geography because I wanted to understand more about our world, I liked its broad span and the opportunities to explore new places"

3. What was your favourite part of your course?

"At Cambridge I enjoyed the international development aspect - I recall learning a lot about India. Also the socio-political elements such as understanding the polluter-pays principle."

4. How has your course helped you in your career?

"It has been very relevant since I chose to work mainly in international non-governmental organisations focused on development and human rights. I have worked with colleagues from all over the world and enjoyed lots of opportunities to travel too. For example I worked on the Make Poverty History campaign, children's rights at UNICEF UK including on climate change / inter-generational justice; on sexual and reproductive health and rights and gender issues at the International Planned Parenthood Federation including lobbying the UN; and now I'm Director of an international disability and development charity."

5. Did you go on any field trips for your course?

"For my first degree course at Cambridge we went on various trips across the UK, but the best was when we went to Crete for explorations in physical, historical and social geography."

6. What do you think are the main differences between GCSE, A-Level and University Geography?

"It has changed a lot since my day but I guess I could say that at each level the scope gets broader and you are encouraged to think more for yourself."

7. What advice would you give to anyone thinking about studying geography at A-level, or University?

"Go for it! Geography is often underestimated by people who do not understand how important, wide-ranging and immensely valuable it is as a subject. Both climate change and the COVID pandemic highlight the importance of understanding place / space and global inter-dependence. It provides a strong foundation for many different careers."

SIMON POOLE OL 1977

1. Where and what did you study?

"I studied at Bedford College, University of London, from 1977-1980. Last year marked 40 years since graduating with a University of London BA Honours in Geography. At the time that I was at London Uni, Geography could be studied as either an Art or a Science: I think it was the only subject in which that could occur. To be honest, I never enjoyed Physical Geography, and I was useless at Maths (!), but since early prep school days I always
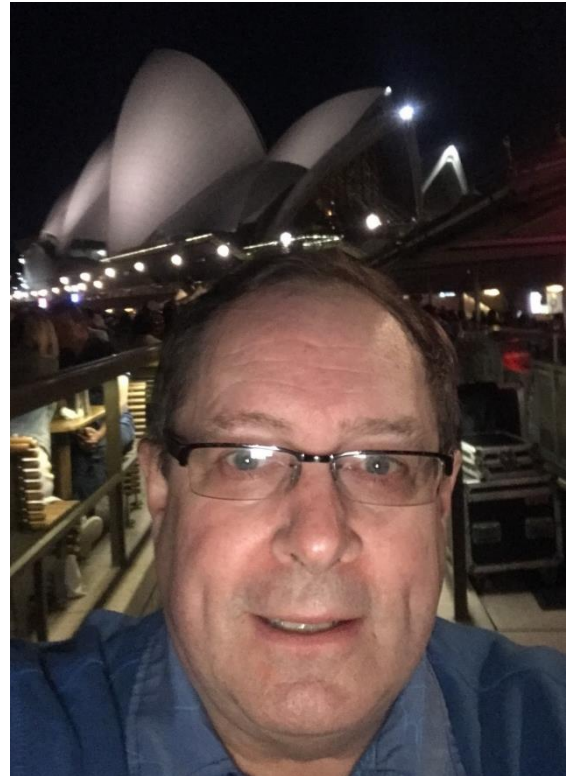
enjoyed the Human aspect of Geography, and that is what I specialised in, once I was free to choose the courses I wanted to take."

2. What made you choose to study that course?

"I guess they are a bit linked, this and the last question, but my desire to acquire a University Degree in Human Geography can be put down to two things:

(a): School teachers that made the subject 'come alive' and encouraged my interest in it, and (b) a natural in-built interest in how humans have shaped, currently are shaping and will continue to shape the surface of this incredible planet we all inhabit."

3. When were you at Lancing?

"Again, it must come across as positively ancient to you: I was at Lancing from Jan 1972- Dec 1976. I realise that if I were in your current shoes, to me that would

have been equivalent to hearing from students who'd been at the school from 1923-1927, which must seem impossibly long ago."

4. What was your favourite part of your course?

"When I look back at it after all these years, here in Sydney this evening, whilst typing this, it was the field work that was my favourite activity: it's a fantastic bonding opportunity that Geographers get, and I made genuinely

life-long friendships from being teamed up with fellow students and thrust into the real world to find out information in urban and rural situations."

5. How has your course helped you in your career?

"I really wasn't sure what I wanted to do by the time I left uni, other than I knew I wanted to travel and see as much of the world as I could, and I wanted someone to pay me to do it, rather than the other way round.

In the end I got where I wanted by starting on a low rung in the British Travel Industry and working my way up, with my uni degree not really coming into play until I emigrated to Australia in my mid to late 20s. It took a 2 year break in my CV, between the ages of 27 and 29, when I travelled extensively in Asia and Australia (admittedly at my own expense) to gain the incredible life-changing experience that that 'journey' gave me, to subsequently confidently apply to a major Australian Tour wholesaler to employ me as National Sales & Marketing Manager, and to

> "Geography is often underestimated by people who do not understand how important, wide-ranging and immensely valuable it is as a subject"

sponsor my Australian residency, something which occurred on the day of my 30th birthday. That job required a degree, as has every subsequent job, and as also did the Australian Immigration Department.

I then proceeded to have another 18 years experience in the Travel industry in Australia before taking another (mid-life crisis?) year off, of travelling, this time around the continental coastline of Europe (long before the show 'Coast'!), before deciding on a major career-change, requiring re-training (and my degree!). As a result I became an Academic English Tutor at a leading Australian university, something I'm now in my 13th year of being, although thanks to Covid 19 this past year has seen me teaching from home on this very laptop on which I'm typing) rather than face to face teaching on campus, which I do miss.
Did my Geography degree help in any of this? Yes, it did.
Knowing the world, helped enormously in my 25 or so year career in the British and Australian Travel industries, and it has taken me to, currently, 106 countries (with the definition being 'spent one or more night in a bed in said country'!)."

6. Did you go on any field trips for your course?

"We did, but they were pretty like the ones I did at Lancing...! Good old South Wales: the Brecon Beacons, the Pembrokeshire Coast, the coal mining valleys, industrial Swansea and the beautiful Gower Peninsula, and Aberystwyth.

The only overseas field trip was a short one, but a good one: to The Netherlands, to investigate Containerisation at Rotterdam Europoort, Land reclamation in the polders, and the impact of tourism in Amsterdam."

**7. What do you think are the main differences between GCSE, A-Level and University Geography?**

"Okay, clearly my course knowledge is going to be 45 years out of date, but what I can tell you is what I tell my students at uni here in Sydney: at school you're told what to learn and when it needs to be learnt. At university you're largely your own boss: it takes good time management, and working out the balance between work, rest and play, all 3 of which are essential to get the best out of your university experience. As my grandfather told me on the night before I started at uni: University is where you'll learn how to learn, and he was so right!"

8. What advice would you give to anyone thinking about studying geography at A-level, or University?

"Firstly: Enjoy it!
Secondly: perhaps you could have a clearer idea of a future career that I had: if you see yourself as a climatologist, a city planner, a demographer, a cartographer, a tourism manager, a conservationist, a freight or transport manager and a whole lot of other industries that I have not mentioned, then geography can definitely take you straight there. But it can lead to many other things too. My roommate in my first year at uni, who is one of my lifelong friends, has been insuring The People's Republic of China's Space Program for about the last 25 years. Another one has been advising every British Prime Minister since Thatcher about the UK's future Public Health requirements, and credits doing Geography surveys as giving her the experience and confidence to nowadays commission multi-million Pound surveys on behalf of the NHS."
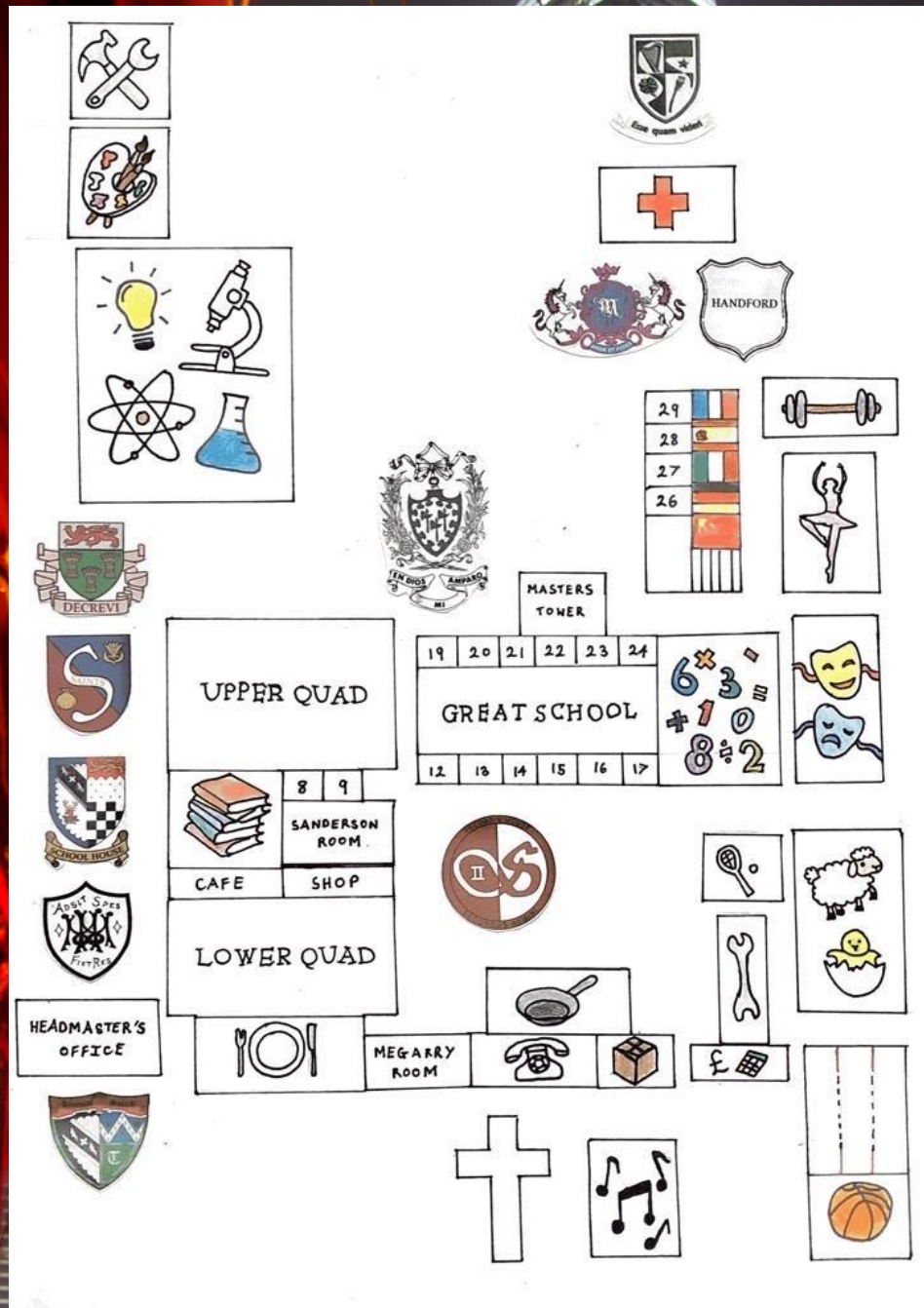
Noah S is a LVI Geographer and is on The Lancing Geographer Editorial board. We would like to thank Alison and Simon for agreeing to be interviewed.
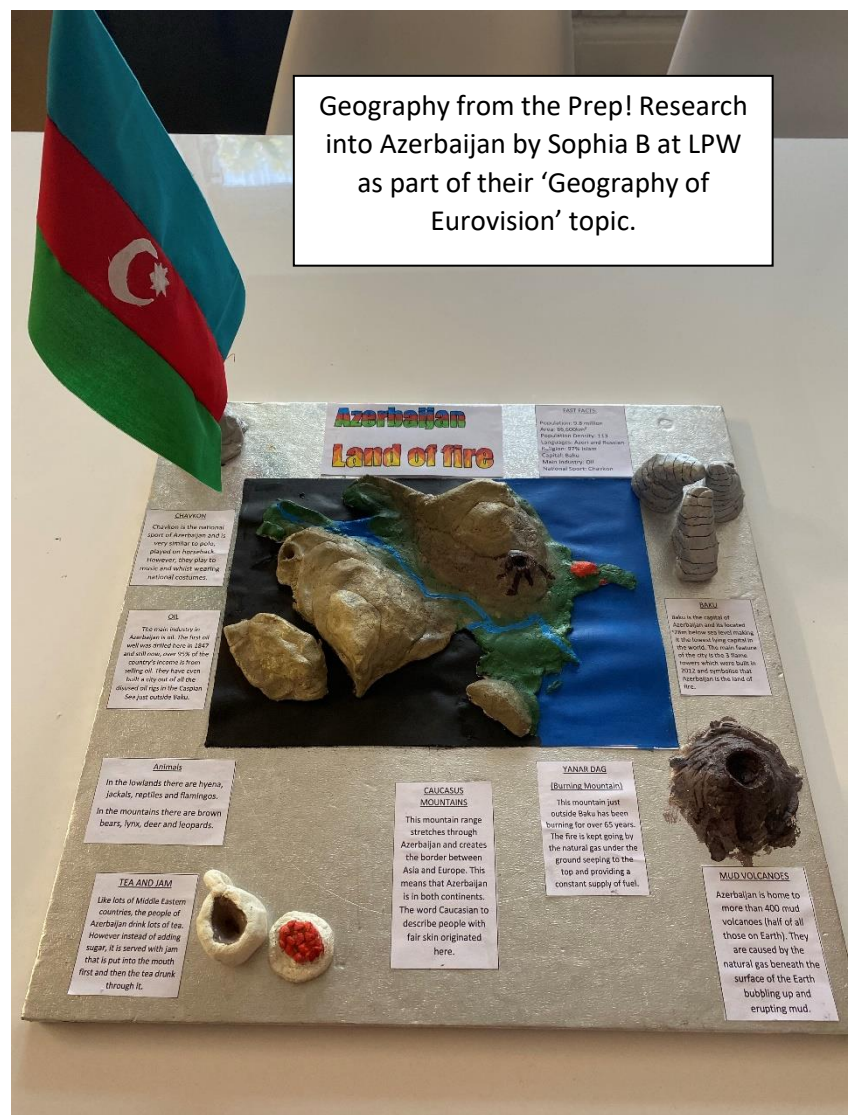
Geography from the Prep! Research into Azerbaijan by Sophia B at LPW as part of their 'Geography of Eurovision' topic.

Back cover: III Form Isabelle K's Highly Commended entry for the map competition.

The Lancing Geographer has been produced by students of geography at Lancing College.

Lancing College