ISSUE 1 | *Innovation* | Spring 2022

Perspectives

Welcome

It is my great pleasure to introduce the reader to *Perspectives*; the germ of this publication comes from a desire to showcase the School's heritage, current academic and cultural issues and new research about our collections. Perspectives is not intended to be a replacement for *The Haileyburian* or *Hearts and Wings*. It is a miscellany of viewpoints linked by overarching themes. By drawing attention to topics which are often overlooked, or require multiple viewpoints which social media cannot provide for readers, I hope that the School can be understood as a broader cultural hub.

Toby Parker
Director of Learning and Research

FROM THE EDITOR

I am excited to be part of this new publication which Haileybury has established in order to examine its role in a variety of cultural practices and issues, and to think critically about the way in which it interacts with other cultural institutions locally, nationally and globally.

A bold initiative indeed! In order to make our goal more manageable, each issue will see us tackle the broad theme of culture from a different perspective, and we have chosen to begin with the notion of innovation.

Why innovation? For me, innovation is an upbeat way of examining developments in the World around us. We can, as the Master, Martin Collier, observes elsewhere in this issue, innovate in all disciplines, and, in particular, can gain a deeper understanding of the past if we study it in terms of innovation and innovators.

Perspectives aims to hone in on certain 'innovations' and 'innovators', all of whom have connections to Haileybury past and present. Toby Parker has examined the development of accommodating the teaching of the natural sciences on the campus and how a donation of material has added new perspectives to the collections in the Archive.

Various members of the Common Room have contributed to the articles on innovations they have initiated in their teaching practice, and we have focused particularly on the experiences of the Removes year, whose curriculum was subject to a notable degree of adaptation beginning in 2021.

The articles collected here offer new perspectives on innovation and show the ways in which it has influenced, and continues to, influence practice at Haileybury as we head into our 160th year of teaching and learning on this exceptional site.

PERSPECTIVES

Perspectives is published by Haileybury, Hertford SG13 7NU
perspectives@haileybury.com

Editor-in-chief: Toby Parker

Editor: Kathryn Koon

Contributors: Emma Denly, Arthur Kattavenos, Tom Opie, Will Sherrington-Scales

With thanks to: Martin Collier, Stephen Campbell, Lola Patel, Ella Rajda

Designed by James Brook, www.jamesbrook.net

Photography: Steve Beeston

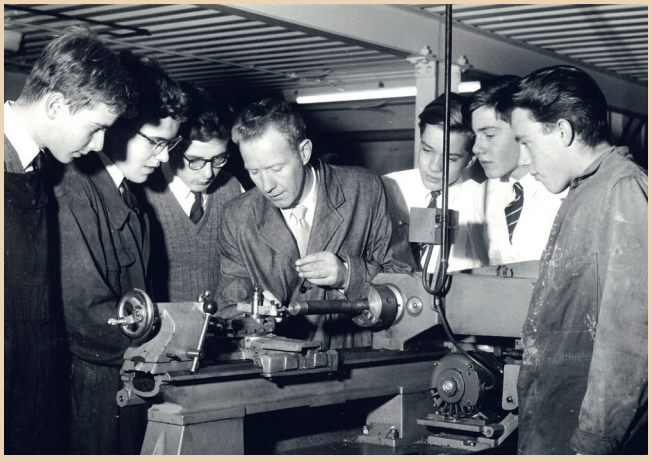
Images: RSAA (3, 14, 18-9, 25, 34-5)

Printed by Gomer, Wales

The images included in this publication are from the collections in the Archive and our partners the Royal Society for Asian Affairs (RSAA) whose Library and Archive are kept at the School. Photography credits: Steve Beeston 1, 7-10, 12-4, 16, 18-20, 22, 25-6, 28-9, 34-6.

RIGHT: Bundi School, *Ragamala: Purvi Ragini*, late eighteenth century, RSAA.

Haileybury



CLOCKWISE FROM TOP LEFT: Pupils working in the Laboratory in Bradby, c.1890; The Natural History Museum, c.1900; The Science Laboratories/Science School, 1934; Chemistry lesson in the Science School with Charles Macdonald (CR 1960.3-1964.2), 1961; Metalwork demonstration using a lathe in the basement of the Science School, 1961; One of the new Biology laboratories, c.1972.

Accommodating Science

The SciTech Centre project is only one of a long line of spaces dedicated to teaching the natural sciences. Toby Parker looks at the history behind some of these buildings.

The teaching of the natural sciences had no place in the timetable during the earliest days of the School. Although the School possessed both a Classical and Modern Side from its foundation, there was no immediate interest in devising a science based curriculum. Teaching science in the mid-nineteenth century was not a cheap undertaking and it is possible that the cash strapped, young institution was unwilling to take on the additional expense of acquiring specialist equipment. Furthermore none of the teaching staff were graduates in the natural sciences.

In the early days of the School pupils with an interest in natural sciences developed their knowledge independently. The construction of the Water Tower, between the South Front and Red House, allowed a small room at the top its vast red brick structure to be used as a laboratory under the supervision of a member of Common Room.

Instead of teaching science in the Modern Side curriculum, external lecturers were employed to provide demonstrations for the pupils. The most famous of the demonstrators was John "Professor" Pepper, who lectured at Haileybury in the 1860s. Pepper had been 'resident director' of the Royal Polytechnic Institution, a forerunner of Westminster University, and an important figure in the development of Victorian scientific education. One of Pepper's demonstrations was so impressive it was commemorated in verse by pupils. In November 1868 Pepper demonstrated a machine which sent electrical discharges to set off three explosions close to the Master's Garden. The first was gunpowder packed against a cast iron gate, the second was a mine and the third was a barrel of gun-cotton. When detonated, the mine sent tons of earth up into the air. Pepper's detonation of the barrel of gun-cotton almost emptied Moorhen Pond of its water and the resulting concussion blew the glass out of the windows on the South Front. During the Lawrence House Entertainment, at the end of the Christmas term, the boys inserted the following lines to their song:

G is for the glass which Professor Pepper pops,
H is for the H's which Professor Pepper drops.

Perhaps by way of reparation for the breaking of so much glass, Pepper lent one of his telescopes to the School and gave further lectures on light.

As early as 1868 there had been calls from the pupils for the creation of a Science Society and in 1872 the Natural Science Society was founded. It was not until the building of Bradby Hall in 1888 and the accompanying 'new buildings', designed by Sir Reginald Blomfield RA (E 1869.2), that the natural sciences were given a proper home. The laboratory and additional classrooms built alongside Bradby Hall were the first permanent home of Modern Side subjects, including Geography and Chemistry. In 1904, under the mastership of Edward Lyttelton, a Physics laboratory was added, replacing the pupils' carpentry workshop. In 1913 the old Hailey House Fives courts, which had been converted into form rooms, were altered again and fitted out as an additional laboratory.

In spite of the slow integration of the natural sciences into the mainstream teaching of the School

there was a lively community of pupils and masters with interests in botany, geology, ornithology, astronomy and entomology. One of the masters, Frederick Headley (CR 1889.2-1919.2), became an acknowledged expert on the flight of birds and wrote *The Structure of Birds* (1895), *Problems of Evolution* (1900) and *The Flight of Birds* (1912). Headley's lasting contribution to the natural sciences at the School was the posthumous publication of the natural history section of *The Country Round Haileybury* (1920) and the creation of the Natural History Museum. When Headley died in 1919 he left a sum of money, which was doubled by his sister, for the enlargement of the Natural History Museum so that it could function as a Biology laboratory.

In 1918 the RAF presented a "Curtiss" aero-engine to the School to teach boys who were considering entering the service about flying and basic engineering. This generous and innovative donation had to be kept in the mower shed! The natural sciences continued to be housed in the Bradby buildings into the 1920s. In 1924, the Master, John Talbot made an announcement at Speech Day to the assembled parents, staff and pupils that the accommodation of the laboratories was no longer suitable for modern science teaching. In the speech he made a plea for a donor to allow for the creation of a new science building. Sadly Talbot's request was not taken up and at the 1928 Speech Day, he informed parents that fees were being raised to provide the School with suitable spaces for the teaching of Science. Following Talbot's speech Sir Joseph Thompson OM, PRS, the Master of Trinity College, Cambridge and Nobel Laureate, spoke with passion about the importance of a scientific education and its role in supporting industry and innovation. A year later a fire broke out in the Chemical Laboratory on the last day of the Easter holiday. Had it not been for the rapid response of teachers living on site, Bradby would have burned down.

The School commissioned Sir Herbert Baker RA to design and build new science laboratories to replace the cramped, neglected and quite unsuitable facilities. The interior was thoughtfully designed and constructed; the partition walls did not carry the weight of the roof, allowing the rooms to be reconfigured to meet the needs demanded on the space in the future. Sadly the costs of the project (£35,000) meant that the new building only housed Physics and Chemistry laboratories. The Science School was opened in 1933 and during the 1930s they were considered to be one of the finest such facilities in any school. Despite the design being innovative and considered by the School to be a successful project, the venture received comparatively little attention when compared to Baker's Memorial Hall (1932) and his remodelling of the Chapel (1936).

Physics and chemistry, during the inter-war period of the twentieth century, were touted as areas of scientific knowledge with huge economic potential. Biology remained the poor relation of the natural sciences at Haileybury for longer than might be expected. Scientific knowledge, particularly in physics and chemistry, was considered vital to Britain's imperial projects to bring 'welfare and happiness' to civilization. Sir Joseph Thompson, when he spoke to the School and assembled parents in 1928, drew attention to the need for a modern, scientific education to support these patriotic aims.

During the Second World War the Science School performed the additional roles of the School's headquarters of Air Raid Precautions (ARP) and shelter for 200 people in its concrete and steel reinforced cellar. The School's ARP, made up of staff volunteers, operated from the flat roof of the building and they were able to communicate with the Hoddeston area ARP, and the wider Haileybury estate, via a Heath-Robinson system of telephones.

The Biology laboratories were finally given their own purpose-built home in 1971, thirty eight years later than Biology and Physics. Designed by Ian Davis and Elizabeth Lloyd-Jones, of Farmer and Dark, their Modernist modular-type building provided the 'Cinderella' of the sciences at Haileybury with a space suitable for modern teaching. The new building provided additional facilities for staff and pupils including a computer room and an investigation room for Sixth form research. A garden and fresh water pool were added next to the building to allow for ecological observations and 'genetical experiments and growing laboratory material'. Reading about the Biology Laboratories in the *Haileyburian* (1971), many of the features associated with the new SciTech building had already been developed 51 years earlier. The world and science education has changed but some of the key features are still in demand to facilitate and extend pupils' curiosity.

Harry Parr, *Physics tondo*, 1933, Science School. Photo: Steve Beeston.

Curriculum Innovation: REMOVES

Long acknowledged as a 'turning point' in secondary schooling, the Removes year at Haileybury has recently seen its curriculum undergo extensive innovation to ensure that the needs of current learners are being met. Overseen by Deputy Head (Academic) Stephen Campbell, the updates aim to develop learners who are academically ambitious, intellectually curious, imaginative and independent. The curriculum offers pupils flexibility and choice in a progressive context; they are encouraged to follow their personalised pathways.

The new Removes curriculum, taught from September 2021, borne of ongoing discussion and debate about the best ways to engage pupils across the age-range, marks Haileybury out as an innovative environment for young minds. Core subjects such as Maths, the sciences and English retain their place in the curriculum, ensuring that young people are given the chance to fully develop their skills in these areas.

However, as noted above, the new learning programme is based on setting up independent 'pathways' for pupils to follow alongside a 'core', which allow them to take control of their learning at an earlier stage than previously, when GCSE choices were the first time pupils got the chance to examine and build their own curriculum. This innovation in approach gives pupils a great deal of power over their own education and, in turn, makes them learners who take responsibility for the choices which they have made.

The Perspective from the Classroom:
Tom Opie, *Head of Design Technology*

Innovation is central to how we, as a department, operate. We have a great deal of success in helping pupils become innovators in the field of design. Old Haileyburian Alex Blakesley, a mechanical design engineer at University College London, worked with a team who sought to re-design CPAP (Continuous Positive Airway Pressure) machines to help those suffering from respiratory problems after contracting COVID-19. The team 'tinkered' with the design of these machines, which generate a continuous stream of pressurised air into the lungs via a mask, to enable them to be mass marketed and quickly distributed to healthcare institutions around the World.

Tom comments that 'the overhaul of the Removes curriculum will help us to produce more of these innovators – young people who are not only able to identify the skills they have been taught, but are confident enough to reinterpret them and put them to use in a totally different arena.' Alex

Blakesley, for example, had no experience in a medical environment, but saw a 'problem' which he had the skills to fix.

In Design Technology, the reorganisation of the curriculum has allowed for a real shakeup in how and what the pupils are taught. Tom Opie notes that as a result of the subject becoming a pathway, the number of lessons a week has increased, thus allowing the pupils to follow a project-based curriculum. Discussion and the impartation of knowledge are, obviously, still key, but now, as Tom Opie notes: 'we can implement the things we have talked about' through practical projects such as the designing and building of an LED lamp.

This project sees the pupils given clear design parameters within which to work, thus ensuring that the process is geared towards pupil success from the outset. There is then ample time to put the piece together, and for the most skilled, there is the opportunity to add a micro-processor to the lamp, meaning that it will react to sounds such as the clap of a hand. It is highly impressive that pupils can take on a project of such complexity at such an early stage in their design careers!

The Perspective from the Classroom:
Will Sherrington-Scales, *Head of Geography*

Why is it important to be able to think like a geographer? In the eyes of the School's Geography department, being able to do so provides a unique way of seeing the world, and of understanding complex local, regional and global problems and their solutions.

Our new Removes curriculum facilitates just this, with the help of an increasing number of 'Decision Making Exercises' or DMEs. No longer do we see volcanic eruptions as a series of (the often dreaded) case study detailing displaced peoples or ash fall coverage; pupils instead experience the evolution of the eruption and are challenged to decide on the most effective response at each stage, as if they are our political leaders.

No longer do we see transnational corporations in terms of just the advantages and disadvantages they bring to a host country; instead, pupils imagine themselves as business leaders making decisions about where in the World it would make most sense to locate their operations.

Further DME opportunities for the Removes cohort will feature later in the school year regarding rainforests and deforestation. Our hope is that these exercises help pupils to see the multidisciplinary nature of geography – the crossovers with politics, economics, with all humanities – and to think like a geographer.

Stephen Campbell asserts: 'it can be seen that our new Removes curriculum is knowledge-rich and highly academic, challenging the pupils to think beyond the "best that has been thought and said". They read poetry, develop linguistically and partake in scientific investigation, but all the time they consider the validity of what they are learning, its implications and its scope.' It is notions such as this which make it all the easier for learning to take place 'beyond the classroom', or, to join classroom learning with a distinctly different space.

The Perspective from Beyond the Classroom:
Emma Denly's staging of Seamus Heaney's *Burial at Thebes*

In February 2021, Removes and Middles pupils staged a production of Seamus Heaney's re-telling of Sophocles' famous Greek tragedy, *Antigone*, which considers notions of 'good governance' and the differing types of law humankind is subject to. The pupils, directed by Emma Denley, therefore had to examine such notions as 'should one blindly follow rules' and 'is it right to obey a rule you believe is wrong?' Heaney's version, which retains the original context, but deviates from the original at several points, notably in its allusions to American politics of the first decade of the twenty-first century. The result was a piece which innovatively blended Greek and modern notions of what 'theatre' can mean.

Emma Denly explains that she wanted the piece to be performed 'in the round' to honour the way in which a Greek audience would have watched Sophocles' original. 'Theatre', for the Greeks consisted of a steep bank of seats often built into a hillside with a central 'dancing space' or *orchestra*. However, Emma deliberately took the notion 'in the round' to an extreme degree by directing members of her chorus (the actors who traditionally came on between scenes to comment on the play) to sit amongst the audience, and to make their way to and from their seats to the floor to speak.

In this unique adaptation, the two groups became one, and, in certain performances, it was impossible to tell which was which due to the fact that all were dressed in their uniforms. Thus, the *Burial at Thebes* gave both audience and actors the opportunity to 'consider the validity of what they are learning, its implications and its scope'.

At three distinct moments across the year, the pupils join their learning together in cross-disciplinary projects, ranging from those concentrating on encouraging scientific innovation to symposiums in which ideas are shared. Stephen Campbell notes that 'these projects are rooted in the community so that pupils learn and understand the power of their work in affecting change not only in the UK but beyond'. The importance of making our pupils citizens of the world is clearly at the forefront of academic thinking.

Project Work and Innovation:
Arthur Kattavenos, *Head of Science*

The project-based learning component of the Removes curriculum provided the opportunity for all pupils in this year-group to take a six week-long course on 'innovation' which had been specially designed for learners of their age. The major aim of the course was to show pupils how to think critically; essentially an opportunity to think 'out of the box' within a variety of contexts, a skill that needs to be nurtured and practised. In other words the course was designed to show pupils how to analyse, explain and predict future trends across a range of areas.

Secondly, the course highlighted to pupils that innovation is not just a term associated with business principles and making a profit on the stock

ABOVE: Removes pupils working on a timeline for the development of technology and ideas relating to the Navigation (Compass to GPS) theme during Innovation Week.

exchange. Innovation occurs within all academic disciplines; English Literature, Science, Mathematics, Technology, Visual Arts and Modern Languages to name a few. The course provided pupils with the opportunity to engage and explore innovation within these areas, culminating in the formation of their own personal opinions including their own definition of innovation.

One of the key skills that pupils needed to apply throughout each unit of the course was self-reflection. True innovation emanates from a person's desire to continuously learn and improve. To achieve this, pupils must be willing to self-reflect in order to identify areas of limitation, or even gaps within their thinking, and then to begin the process of discovering new ways of ameliorating their thought processes, including filling in the gaps.

Having completed the course the final phase was to develop and present an Innovation project; to create an Innovation Hub. Pupils worked in their tutor groups on one of twelve specific innovation themes for three days presenting their outcomes and predictions by group presentation and video. Some of the themes included;

Navigation* (*Compass to GPS*) – *including its impact on goods and services and the way GPS enables us to reach the world through an evolved perspective.

Pioneering Women* (*Leadership and Contribution to Innovation*) – *breaking down the history of women's place in society, and the effect of comparatively recent changes that have resulted in greater freedom.

Animal Adaptation and Innovation* (*Evolve or Die*) – *digging into the questions of animal adaptation and extinction, and the impact our world and human interaction has on these outcomes.

Tutor groups needed to show teamwork, leadership, research, communication and thinking skills, including the application of key knowledge found on the course. By critically analysing a situation and determining the interlinkages and dynamics of it one can innovate and potentially predict future outcomes and trends.

The Removes did just that! The hubs developed were simply brilliant – showing excellent creativity, technology, and of course, innovation. The outstanding tutor group was led by Ella Rajda of Lawrence.

As the pandemic comes to an end, next year's Removes will visit Cambridge museums and institutes to see and experience first-hand how innovation develops and progresses over time. Unfortunately, we could not offer this to the 2021-22 Removes, but two marvellous lectures leading up to the project by Dr. Toby Parker (Director of Learning and Research) who articulated superbly how molecular chemistry advances were seized upon by those working in the snack industry to enable them to innovate in the flavouring of potato crisps, and Dr. Kate Brazier (Head of Theory of Knowledge) who presented on the innovation of synthetic polymers, were more than appropriate substitutes for a sojourn to Cambridge.


FARADAY
PRIESTLEY
GEBER
DALTON
LAVOISIER

Innovation: Pupil perspectives

ABOVE: Lola Patel and Ella Rajda. Photo: Steve Beeston.

LEFT: Harry Parr, *Chemistry tondo*, 1933, Science School. Photo: Steve Beeston.

The sculptor and ceramicist Harry Parr was commissioned by Sir Herbert Baker to make roundels to celebrate discoveries in physics and chemistry. The two ceramic plaques were inspired by the plaster roundels (c.1930) designed by Leonard Rome Guthrie in the Main Entrance of the Royal Institution, London.

Kathryn Koon interviewed Lola Patel and Ella Rajda, two current Removes pupils, about changes to the Removes curriculum.

Ella started off by stating that many of the Removes were extremely nervous about the innovation project as they had 'never done anything like it before' and were 'scared at having to pull off such a big project with people they didn't know'. Having a full week off timetable allowed the Removes to get a sense of the investment in this project on behalf of their teachers.

Pupils came together to hear members of staff discuss the concept of innovation in the hope that this would get their own ideas flowing about what is quite an abstract concept. Then pupils came together in groups of around eleven and were assigned a concept (Ella's group tackled 'navigation') and had to look at how innovation had occurred in this field. They were told that they had to present on their concept and produce an info-poster to be distributed to their peers.

I asked Ella what was the very first thing they did after being given the topic of navigation, joking 'I bet there wasn't anyone who had any sort of expertise in this field!' Ella agreed that they were all a little stumped, and made sure they took time getting opinions from everyone about what they thought the term navigation meant. General discussion helped to pinpoint how they should split up the project – they were beginning to see where different members' skills lay. In this way, they could easily make up for a lack of knowledge – they had the SKILLS to find out what they needed.

Ella noted that they had a Drama scholar who was given the task of producing and directing a video on the topic. An Art scholar took on the task of producing drawings to sit alongside the 'board' the pupils produced to accompany their talk. Academic scholars were identified and asked to look at the aspects of the theme deemed the most difficult (the future of navigational innovation). In project-based tasks such as these, everyone has a chance to shine.

I asked what were the major problems the group encountered when they were undertaking this project. Lola replied that distraction was the main one – pupils were not used to being the masters of their own time. They did not have much prior experience of working on something so big and merely anticipated the amount of time it would take to complete their own section without factoring in a 'finishing up' period. It was also difficult to make sure that there was no repetition – groups looking at different aspects of the topic might find themselves writing about the same thing without knowing it. Therefore it was key to come together at frequent intervals throughout each day to see where people were.

Some pupils had more practical problems – those for whom English is a second (or even third/ fourth) language struggled with the technical vocabulary when they studied navigation. How would you explain SONAR

LEFT: Detail: *Thangka with Amitabha in his Pure Land*, c.1800, Tibet, RSAA. Photo: Steve Beeston.

technology to someone in say, French?! Ella noted that pupils don't want to show 'weakness' in front of their peers and so turn straight to Google Translate. However, the innovation project highlighted the weakness of this approach – instead pupils were encouraged to keep lists of words they did not understand which could then be discussed with one other member (Ella was often responsible for this, having taken on a leadership role within the group). Such subtleties of approach show just how much the pupils bought into this project.

Lola commented that few of the children had experience of project-based learning and both interviewees said that they had really enjoyed it and were pleased when project-based learning came up again later in the year. This time there were far fewer nerves about presenting as pupils had a successful episode to refer back to.

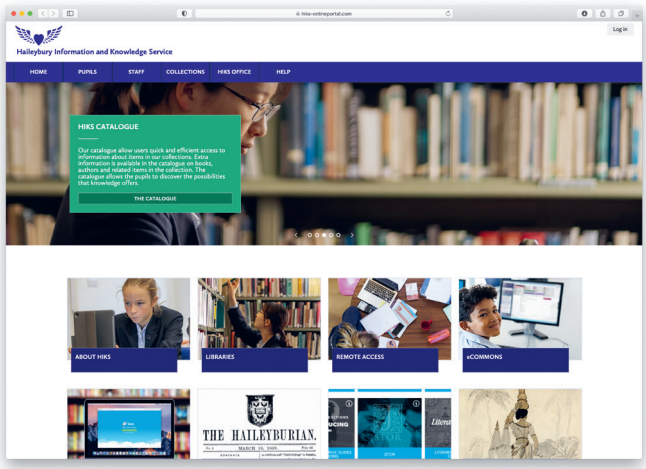
In Theology and Philosophy, the pupils have completed projects on the notion of utopia. Classwork and prep saw them present a slide show to the rest of their class. The group were given parameters within which to operate and had to construct their own utopian society – laws, healthcare etc.

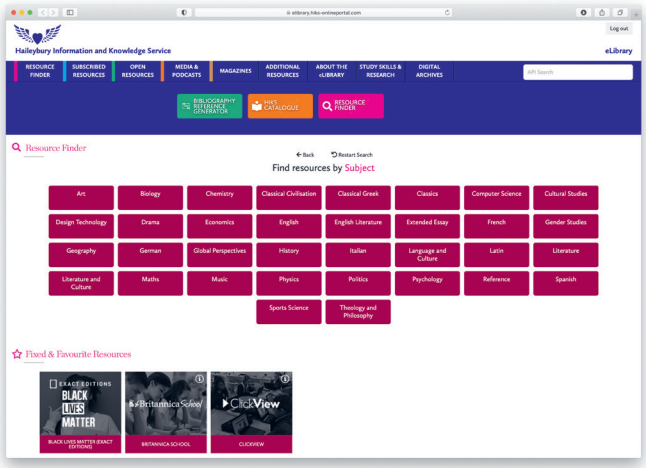
The project saw them bond as a group – Ella notes that 'teacher led' teaching doesn't allow you to develop skills such as teamworking or adapting to the needs of others.

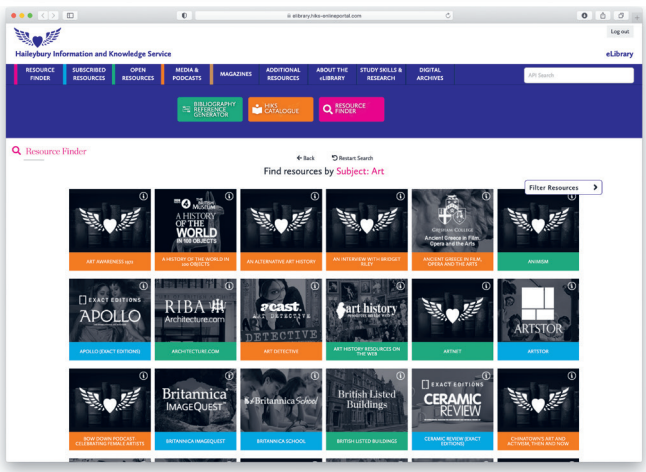
I asked why they enjoyed the project so much. Ella and Lola said that it was because they got to see the results and got instant feedback on their work. Ella said it was really good to present and to see people nodding or taking notes on something they wanted to ask a question about. The immediacy of it really chimed with them. They were the experts on their topic and it made them feel incredibly powerful.

The Theology and Philosophy Utopia project was discussed in much detail – it was clear to see that the children had really gained a great deal from it and had invested personally in it. Ella noted that she had drawn on personal experience when she was putting her project together. She noted that her utopian healthcare system drew on the US system in which the individual pays for their own care, but wanted a more affordable, subsidised system which also drew on the taxpayer's support. However, her research also took her to places / societies which she had no experience of. For the education section of her utopia project, she looked at Finnish models, which are highly praised for turning out resilient learners who can adapt to complete tasks in the workplace, rather than 'knowledge robots' who have an admittedly large but finite knowledge base which they do not know what to 'do' with outside of its immediate circumstance.

I came away from my interview with Ella and Lola with a sense that the changes to the curriculum had given pupils a greater ownership of their ideas and the skills needed to articulate them.







CLOCKWISE FROM TOP LEFT: The Library, c.1891; Members of the Upper Sixth IB Visual Arts class using the HIKS catalogue; HIKS portal; eLibrary, Subject Resource Finder; eLibrary resources; Members of the Upper Sixth IB Visual Arts class accessing the eLibrary resources from the Art School.

The Invisible Library: Creating an eLibrary for the modern scholar

In March 2020 the Library, as part of a process of modernising of its services, was renamed the Haileybury Information and Knowledge Service, HIKS for short, to emphasise the modern role it plays in the life of the School. Perversely HIKS was born on the same day that COVID-19 closed the School. While the class-based lessons became the 'Connected School', our online teaching service, many of the resources used by pupils and teachers remained locked in the Main Library. While the foundation date for the creation of HIKS was not an auspicious one, a plan already existed for the creation of an eLibrary.

The original plan for the creation and development of the eLibrary was to take place over five years in order to manage the costs and join up the physical and digital collections. Within two months of the closure of the School, a prototype eLibrary system had been built and allowed members of the School to access hundreds of thousands of articles and other resources via new subscription services.

The creation of the eLibrary during the first lock-down has not meant the end of the project. We are constantly seeking to innovate the product in order to make the user's experience as easy as possible. At the time of writing this article there are 26,693 books and musical scores filling the shelves in William Wilkins' elegant, barrel vaulted Library, originally the Chapel. The eLibrary contains a much larger virtual collection for users. Today the HIKS eLibrary provides access to millions of articles, over 30,000 ebooks, several million images, curated open websites and a large number of searchable online journals and magazines. The eLibrary is now part of a larger, constantly evolving information system available to pupils and teachers any place, anytime and anywhere, via an internet connection.

Users of the eLibrary can find resources using subject, year group and qualification based searches. IB Diploma candidates have a search system designed to allow them to explore themes covered on the Theory of Knowledge course. An Application Programming Interface or API search allows users to search for materials across all of the information platforms run by HIKS. Every subscribed resource, or curated website, has an abstract attached to the access button, providing information on the resource to help the user make their selection. Other services, to help the users of the eLibrary, include a citation and bibliography generator and a subject catalogue to facilitate the use of the JSTOR journals.

Today countries are moving from industrial economies into knowledge-based economies and access to high quality information, alongside the requisite skills to manipulate that information, are vital. The demand to innovate during the two lock-downs, and an ongoing commitment to maintain developments, has led to the creation and improvement of one of the best information systems for a school. Rather like the Invisible College, associated with academics such as Samuel Hartlib and Robert Boyle in the 1640s, the HIKS system exists to allow users access to a space devoted to sharing knowledge and information.

From Chartût there are 2 roads to the Lakarai Pass That via Âw Zangâni is the kafila road and is reported easy throughout . The road up the Sûrkh âb stream by Shigai is very difficult & only passable by foot men The hills on either side of the river are very precipitous It is shorter than the other Route.

The Mungul Villages must be considerably high as snow lasts for about (3) three months

There is very little ascent from Mungul to the top of the Pass

The Lakharai Pass is the easiest Pass through the Soofed koh range It can be crossed by foot men at all seasons of the year, but laden animals can not pass for about 3 months in the year At all other seasons Kafilas pass to and fro A horseman can go without dismounting

By this route there is said to be no difficult pass or defile such as the Khaibar or Jagdalak

Major Stewart. 1879.

Jelalabad to Kabul via Lûghman & Latabund.

	Stages	Distance
1	Kajura	14 Mile
2	Adrak Badrak	17
3	Dabali	10
4	Danagi	13
5	Gazak	8
6	Kâbal (1)	17

NOTES

(1) Bâd pash & Lûghm crossing Kabul & Lûghm

(2) Dabali Route via road, difficult at Lakai able for laden animals This road via the Lalat the shortest to Kabul

(3) Jawari Mena : Over Sa Range 8000ft, practicable troops, but for laden an

(4) Wara Gattai : difficult : pr for lightly laden Camels.

CABUL

LUGHMAN

LATA BAND

CHINARI ROAD

DABALI

LARARAI

IRO MANZIL

DIFFICULT CHAPAR

BAD PA

ANGUR TAK

CHA ROUTE

Chartût

16 Miles

Goodur

Mama Kheyl

Kundi Kheyl

Angur Tak

Mian Bekh or Aghzan Bekh

Lakarai or Lakarai Pass 8000 ft

Blocked with Snow December to April

Open 3 Months

Zira kandao

Ghwazi Zae

Swigai

Mungal

Shoutur gardun Pass

Sûrkhâb River

Kabul River

LLE

H U R R I A B

H U M K U N N

Detail: Peshawar to Kabul, 1878, map, RSAA. Photo: Steve Beeston.


ON ROUTES
(5) Chapar or Saparai Route: avoiding Gandamak & Khugeani Country; difficult, but traversed by Kafilas.
(6) Angar Tük Road by Talang-i-Wazir to Surkhab Bridge: easy.
(7) Badshahi or Royal Road: passing thro' several defiles but practicable for wheeled Artillery.
(8) Lataband; short & practicable for Kafilas. It avoids the Tezin & Khurd Kabal Passes and the Haft Kotul
(9) Chinari: avoiding the Haft Kotal. After crossing the Chinari Pass, one road joins the Royal Road at Kabar-i-Jabar which is as easy as the Haft Kotul. Another & a more difficult road goes to Butkhak
(10) Lakarai: over hills, but short & practicable for laden animals.
(11) A road over hills turning the Jagdalak defile: practicable
TO CABUL
(12) Iro Manzil; over hills: short and practicable.
(13) Karkacha: considered easy. A cool route: much traversed.
(14) The return Route from Kabul taken by Major D'Arcy Todd in 1838 via Karkacha thro' Hisarak to Agam at foot of Sufed Koh
(15) Burnes Route of 1837 avoiding Jelalabad and going over the Karkacha: From Basawal to Gandamack this is the shortest route; it is high, dry, & stony, yet crossing many streams & passing over low calcareous conglomerate offering no serious obstacles.
(16) Gosfand Dara: turning the Khurd Kabal defile, passable by lightly laden animals.
(17) Minari Road from Tarakai direct to Kabal. Most of the wood from the Karkacha range of hills reaches Kabul by this road, it being the most direct. So called from the ruins of a lofty Minar on the hills.
71
Chagar serai paran
Kooner
Pooshut Fort
Shewa
Goorack
River Kunar
Daronta
Char Bagh
Sultanpur Pain
Talang
Sultanpoor Bala
Besoot
Kamah
JELALABAD
GUGEANEES &
DAOODZAIS
Kabul R.
Lalpoor
Dhaka
Goshta
Chur Deh
Bareekab
Butteekot
Amber Khana
Hazarnow
Girdee
Sirkanee
Agam
Chaprehar Stream
Haftian
Dehi Guz
Kandu Bagh
Showlance
Tirla
Hadah
Adur
Manoo
Mowra
Kotghee
Umurkhel
Zangobatch
Rajuree
Sudor
Khoord Burra
Burra
Sidpoor or Zer Butcha
Jabbah
Goolai
Ishpolah
Yaghee band
Koth Bolack
NUNGNAHAR
Shinwarries
A F R
Spean Ghur
Soofeyd Koh
KURMAN DURRAH
Bara River
M
Khyber

On Innovation:
A Conversation between the Master of Haileybury, Martin Collier and Kathryn Koon

KATHRYN KOON: **Before we discuss particular innovative educational practices at Haileybury, could you establish why it is important to innovate within a school environment.**

MARTIN COLLIER: Innovation in education means adopting a questioning approach to the curriculum we provide to enable our pupils to learn. It is important not to assume that the methods used to educate the previous generations at Haileybury will suit our current cohort.

Therefore, the notion of innovation can also be understood as an awareness of the need to appraise on a regular basis our approach to teaching and learning, and to make sure that we remain abreast of changes in educational philosophy. It also means remaining alert to changes in the wider world, whether that means reacting quickly to something specific such as the COVID-19 pandemic or, more broadly, taking technological advances into account, and thinking about the ways in which both of these things can influence a school environment.

All educational institutions should have a mechanism, that is to say a department or an individual, whose job it is to consider and foster innovation in teaching practice. Their findings should not be arbitrarily imposed as any adaptations proposed can only be established through consent and collaboration.

A good example of this at Haileybury is the 'Connected School' which was set up in response to the pandemic. 'Connected School' was innovative and worked well over a prolonged period because it joined up many areas of the school environment for pupils so that pupils at home could still experience 'a Haileybury education' even though they could not be physically present in the school itself.

We constantly sought feedback from pupils, parents and teachers about 'Connected School' and developed new practices in accordance with what we heard from those using this platform. The innovations which came about from 'Connected School' (such as the use of Google Classroom to set and organise pupils' work) have structured how the School works in this tentative post-pandemic period.

It is important to note that innovation in a school environment doesn't mean a complete departure to the teaching and learning practices which went before – it is an evolutionary process. It takes time to implement new schemes and strategies and we must be careful to give everyone time to adapt and to question those which are selected to be utilised in the school at large. What people do not like is initiatives which come and go. We must look at longevity in order to be truly innovative in an educational environment.

KK: Speaking of longevity, one project which definitely fits this description is the School's Sci-Tech building and the related Stan-X research programme. I think it is necessary here to offer a little basic information about both of these before we discuss why they are so innovative.

MARC: Sci-Tech is the name given to the ambitious extension which will be added on to the existing science building to form a 'Science Centre'. It will consist of a central quadrangle from which pupils can access the classrooms of the sciences, Design Technology and computing. In addition to these rooms, there will be an inter-disciplinary research centre which will house numerous projects, some of which, such as Stan-X, have already begun.

Stan-X is a collaborative experimental biology project run in collaboration with Stanford University in the United States of America and the University of Oxford. Specifically, the Stan-X project sees pupils working with fruit flies to study evolution at high speed – that is to say, to track the spread of beneficial traits (such as red eye pigment) in this species. The short life-span and speedy reproduction of the fruit fly means it is possible to see the genetic makeup of a population adapt over the period of a few weeks to take advantage of traits which will make life 'better' for the species in general.

KK: Can you explain why Sci-Tech and Stan-X are so innovative?

MARC: Stan-X gives pupils the opportunity to be scientists, to learn good scientific practice as well as enhancing their knowledge in particular areas of this discipline. Our pupils therefore do not just learn about issues in Biology, but rather they test hypotheses by setting up experiments. So you can see that we at Haileybury are not just learning from those immediately around us, but rather we are taking our search for innovation in education worldwide.

Our pupils are the only ones in Europe to participate in the Stan-X project so it is a unique experience which will equip them with research skills which they can take into any working environment. It will better equip our Sixth form pupils for university, where collaboratory projects form the backbone of study.

The new Sci-Tech building will be the perfect environment to take forward this more project-based, collaborative way of learning which will enhance pupil engagement not only in the sciences, but also in areas such as Design Technology and Mathematics.

KK: The Sci-Tech project, for me, is a great opportunity for Haileybury to highlight past innovators in education seeing as it will be built onto Herbert Baker's magnificent Science School. As Toby Parker has noted in his piece on the history of the accommodation of science teaching, this building, this space has always been geared towards allowing pupils a great deal of flexibility in their learning. For example, several of the classroom partitions are non-load bearing, meaning they can be dismantled to create larger classroom spaces which are often needed for project-based collaborations which are coming to the forefront in terms of educational practice in the twenty-first century.

MARC: Yes, It is important to be aware of the fact that not only do buildings like this encourage innovation in terms of pupils' learning, but that the space itself prioritises social interaction on a large scale – this means that pupils get the chance to actually speak to more of their peers and to share knowledge and evolve practice on account of their conversations.

KK: We can use these ideas to innovate in the arts curriculum at Haileybury.

MARC: Indeed, we must look at the close working relationships which pupils build in the sciences and channel that when they are in, say, a history classroom. It is important to encourage collaboration across the board through a programme of outside lectures, question and answer sessions with experts and pupil-led seminars.

If we do this, we can help our pupils develop a broader cultural understanding. As a historian, it is particularly important for me that pupils find themselves in a world environment during their time at Haileybury. They compare and contrast the different ways in which groups across time and space have reacted to problems, and see the ways in which they innovated to get around these issues.

Innovation is a universal concept which can be applied across the spectrum.

KK: **Let me give you an example of what we might call 'historical innovation' in practice! In my current Lower School class, we are looking at the Black Death and, rather than just examine how it affected England, we are widening our scope and we are looking at the issue on a global scale.**

For example, we are looking at the cures people used to try to combat this disease, contrasting them with the study and practice of medicine in the Middle East at this time which was much more innovative than it was in Europe.

MARC: I agree that studying other cultures is a key way to encourage innovation. History textbooks nowadays make it much easier to do this as they seek to help pupils understand the global factors which influenced 'English' history. For example, the textbook I have recently produced with Rosemary Rees includes a section on the crusades. We have been careful to select sources written by both Christians and Muslims so that pupils have the opportunity to examine this area of history from differing perspectives.

I am hopeful that by innovating in the way we write about history – and by innovating in what we include in our 'historical canon' – our pupils will develop as empathetic citizens of the world who are aware of and interested in the differing narratives which together make up an 'event'.

KK: **Finally, I'd like to focus on another year group at Haileybury who have seen huge innovations in the teaching they have received here, namely the Removes cohort. Why adapt the curriculum for this year group in particular?**

MARC: We start here because this year group are not constrained by public examinations, and because children of this age are something of a 'blank canvas' – they are old enough to have definite ideas and opinions about their teaching and learning, but are young enough so that they are not 'set in their ways' in terms of educational practice, and are willing to adapt to changes.

Finally, because these pupils have potentially four years left once they have completed their Removes year, we can track the impact of the changes we have made for this group. Removes pupils stand at the beginning of a great crossroads which we felt needed to be adapted to suit the importance of this point in their educational lives.

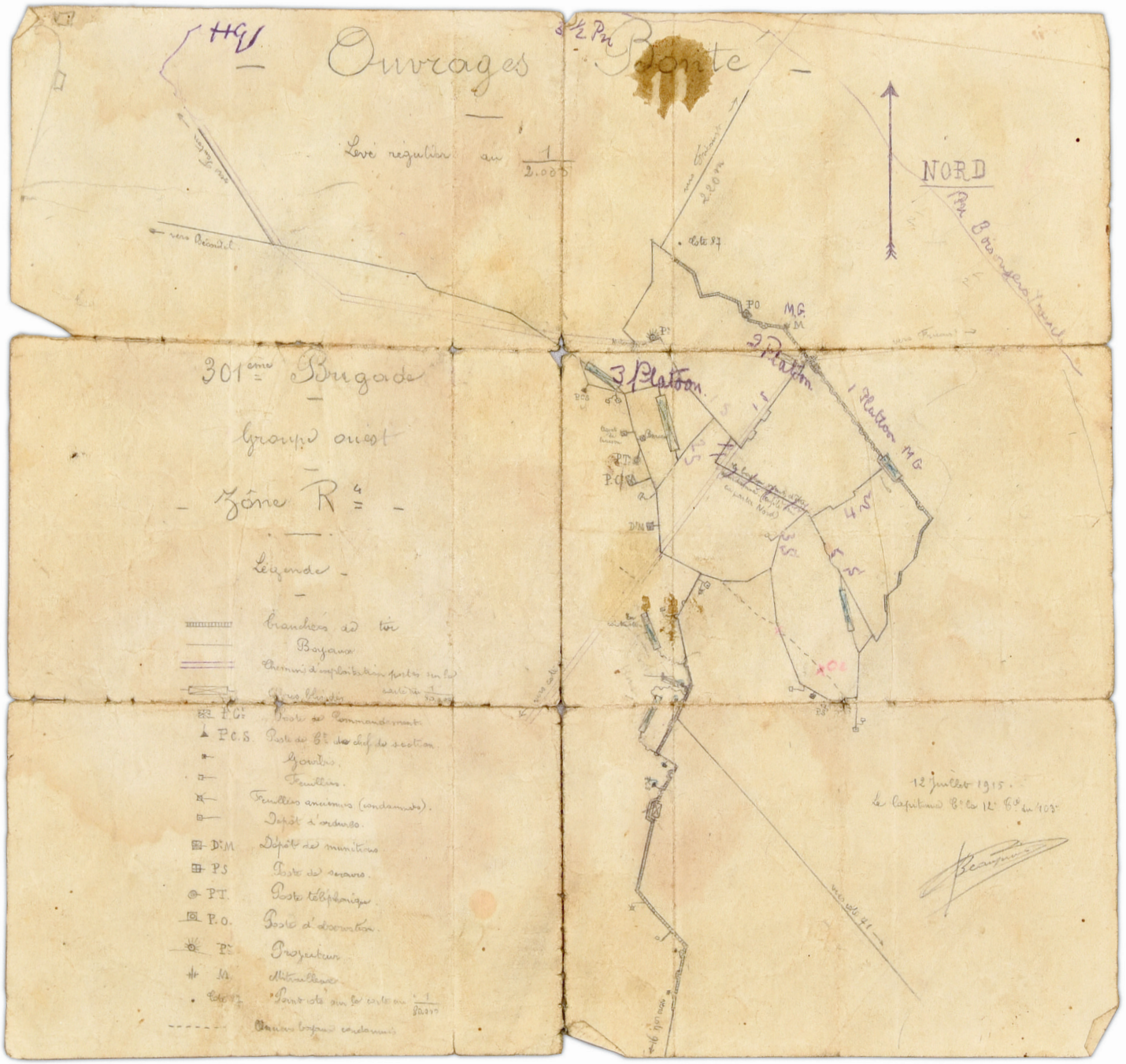
We have been extremely happy with the feedback we've received on the updates to the Removes curriculum. It has encouraged innovation in a number of ways, for example, in the teaching of science where pupils have worked on large-scale collaborative projects during 'Removes Innovation Week'.

Pupils consequently take greater ownership of their learning, as they can see that it has been tailored to suit their particular interests and needs. This is at the heart of concepts such as 'pathways' which are central to the changes we have made. It is great to see how changes to the Removes curriculum have allowed innovative teaching practice to flourish at Haileybury.

RIGHT: Detail: Peshawar to Kabul, 1878, map, RSAA. Photo: Steve Beeston.

This map belonged to General Sir Samuel Brown VC, GCB, KCSI, commander of the Peshawar Valley Field Forces during the Second Afghan War. The annotations on the map (pages 18-19) refer to the military intelligence required for the British and Indian forces to march from Jalalabad to Kabul.


Shewa
Gooraik
Besoot
JELALABAD
Kamah
Lacherpoor
Goshti
Meshwanee
Jallowgee
Hadah
Tirla
Kandu Bagh
Showlanee
Bareekab
Chur Deh
Ghazeeabad
Khoord Barro
Barro
Buttedoot
Zongolaich
Shirshee
Rajuroo
Sudur
Sudpoor or Zor Butcha
Goolai
Jabbah
Lehpolah
Yagheeband
Kot's
N U N G N A H A R
Shinwarries
Lagulioh
G U G E A N E E S &
D A O O D Z A I S
Khagih
Amber Khana
Chicknour
Kabul R.
Jallowan
Girdee
Sirkanee
Basool
Lallpoor
Hazarnow
Khoord Kurbur
Dhaka
Posh Bolack
B A
Chingi
Kalour
Oomergai
Durwaigai
Good Road through valley from
Killagai
M O M
Runna
Khyber Mountains
Khyber Pass
Lundee Khana
Lala Beg
Jehpola
DAWEGAI
KUMALL
Nakai
Kuttasur
Sunghu
Sarroboe
G U N D A B
A
Soofeyd Koh or Speen Ghur
N DURRAH
O O R
T U K Z I E S
A F R E E D E E S
B A R A
Bara River
Mullikheyl
Gooadi
Barka
Shekeeda
Chapree Sir
D O W L U T Z A I
Zookhtan
MULLIKHEYL
MEESHTEE
ABDULLEESH KHEYL
MANDKHEYL
BURMUHUMMUD KHEYL
Khursinah
A L L E E Z A I
Bazarkhel
Bugurh
Tullunnia Sr.
MOMMOZAI
Zava Ghur
ALLEESHEREZAI
ALLEE KHEYL
Muzzee gurh
Soopah Sir
SAMILZAI
Kunai
AKHEYL
MEESHTEE
Ibrahimzai
Kohat
Z Y M O O K H T
B
Dursummund
M E E R A N Z A I
MULLAKHEYL
Bur Soomaree
Togh
C
L O W E R
U S
Jorawurree
Nurriah
Old Town
KOHAT
Chanderwal
Shadee Kheyl
Akhor
Meer Bagh
Teendah
Thana
Dolraghu
Chinarah
Jungurgh



ABOVE: Map of the trenches near Fricourt held by D Company, 8th Battalion, East Surrey Regiment in September 1915. The map, drawn by a French Army officer on 12 July 1915, was found on the body of Marlborough Thorne.

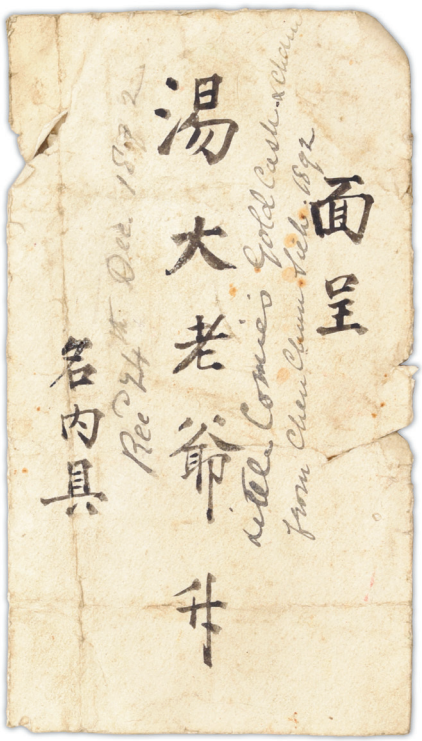
NEW VOICES IN THE ARCHIVE: THE SECOND THORNE DONATION

When Cornelius Throne (Tr. 1937.3) donated the papers, which related to his OH uncles and father to the Archive, I had assumed that we had received all of the surviving papers relating to the family. This assumption was shattered over a year and a half ago when I was contacted by Cornelius' eldest daughter, Jeanette Wight. She informed me that another group of letters from Cornelius (B. 1905.2), Marlborough (B. 1908.3), Joseph (B. 1913.2) and their mother Elizabeth had been found; was Haileybury interested in acquiring them? A swift reply in the affirmative to Jeanette's question, began a long and fascinating journey, culminating in the second Thorne donation.

The letters, which formed the catalyst for the second Thorne donation, had been discovered by Benedict Brogan, a second cousin of Jeanette's. They had been found in a case belonging to his grandmother Lady Brogan; Olwen Brogan, nee Kendall, was a pioneering archaeologist on Roman Libya, was a first cousin of Cornelius, Marlborough and Joseph, and a daughter of Phillis 'Phil' Kendall, the sister of Elizabeth Thorne, nee Crosse. The bundles of letters in this group had clearly been taken from the larger collection which had been earlier donated to the School. Elizabeth Thorne's annotations appeared on many of the envelopes and it is likely that the letters had been borrowed by a member of the Kendall/Brogan family and then forgotten about. Contained within the bundle labelled "Mally's last letters" was the missing War Office telegram informing Elizabeth of the death of her second son on 28 September 1915, at Fricourt. In addition the trench map found in Marlborough's tunic, when Cornelius recovered his brother's body from No Man's Land, was found in one of the envelopes. The letters found by Benedict Brogan were able to fill in a number of gaps in the information which had been apparent in the letters from the first Throne donation.

My discussions with Jeanette lasted over a year. As the months passed and our discussions progressed, the number of items offered to the Archive increased to include the letters from Joseph Thorne, who was killed in the retreat to Dunkirk in 1940, to his eldest son Cornelius at Haileybury. While the telephone calls, emails and even WhatsApp messages continued between Jeanette and myself, the news was announced that Lawrence was to become a girls' house. Finally, after 48 years of co-education, the balance between the boys and the girls in the School was about to be put on an equal footing. The news of this event sparked my awareness that the collections in the Archives contained very few female voices. This thought started to make me think about what possibilities a second Thorne donation might offer?

While inspecting the material the family were offering the School in September 2021, it became apparent how important the papers of the wives and mothers of the Thornes were. The importance of Elizabeth Thorne had already been established, culminating in 2018 with the publication of *Elizabeth Thorne's Memory Palace*. What I found in Cambridgeshire were the stories of a further two women who were army wives in the inter-war and post-Second World War periods. Joseph Thorne married Marjorie Brakenridge in India in 1922 and her letters, settling into life in India and Army, make fascinating



ABOVE: Envelope that contained a gold cash and chain presented to the infant Cornelius Thorne by Chen Chun Suh to celebrate his birth. Given in person on 24 December 1892. Notes by Elizabeth Thorne.

RIGHT: Cornelius Thorne's letter copybook #4. Letter to Joseph Thorne of Shanghai, family and business news, dated 13 January 1871.

J. Thorne Esq
Shanghai -

16 Mark Lane E.C. Jany 18th 1871.

My dear Brother

Yours of the 11th Nov was to hand the 10th inst. Your information regarding Robert is not satisfactory - I hear the same thing on this side - viz "that he is a very good fellow, but so easily led by any one, that he is taken in right & left" but I do not see this is any reason why you "wish A.T. would have him home" What has A.T. to do with him - more than you or me? - A.T. seems to have stopped the credits & by having him home, would have to pay his passage money, & keep him while here, for as his Mother has no funds for this purpose - & Robert has not any of his own, it would necessarily follow, if A.T. wants him home, he must pay for him - & so still further increase the amount he has lost by him - I hope Tom's "fit of economy" will prove lasting - but I have no faith in him. The question of Iron roof to godown, & alterations to tarry room, I have previously disposed of, so will not reopen it -

I have specifications out, with a Glasgow Iron Firm, for the railings, & ought to have received their contract before now - Maitland Trend ask a very long price, but from the rough estimate from the Glasgow people - I expect equally as good work, & much lower cost. The railings &c would be ready for shipment, in about 6 weeks from date of order - & I shall now lose no further time - so pray send me all the cash you can - as this will take a lot of money away -

Herbert sailed for Natal in the ~~Earl of Southesk~~ "Earl of Southesk" in the 9th inst he has an idea, he would like Coffee planting - so he has an introduction to a friend of B.J. Coffs - Mr Arthur Harvey - Durban Natal, who was for some time Secty to the Highland Society - in London - & now manager of a Bank there, who can materially assist him in this respect - he will also have letters to Maitland's friends - & some money will be sent out to meet him - so if he keeps straight, he ought to do well -

The last day or two, my Patent "gleam of sunshine" has become a little overcast - The Frost continues very severe - & quite shuts up my works at Looting - where I have some important ~~things~~ Fibre [illegible] preparing for Dundee - however I am learning how to be patient -

Our friends generally, seem well -

Yours affectionate Brother

C. Thorne

ABOVE, CLOCKWISE FROM TOP LEFT: Elizabeth Thorne, Marlborough, Cornelius, Cornelius Thorne Snr, August 1898, Sze Yuen Ming Studio, Shanghai; Cornelius Thorne, 1916; Leo Steveni, White Finnish officer with August Anselm Wesley, chief of the Red Guards, March 1918. Taken at Tampere during the flight of the British Embassy from Petrograd through Finland; Leo Steveni, British officer with Verner Lehtimäki, Red Guard cavalry commander at Tampere, March 1918; Marjorie Thorne, nee Brakenridge; Joseph Thorne, 1918; Cornelius Thorne, 1943.

OPPOSITE: Menu card, Staff College Course Dinner, Simla, 14 August 1925.

reading; her letters offer a different perspective about life from those written by the men. In addition there was a long letter from Iris Portal, daughter of Sir Montagu Butler (Tr. 1886.3), to Elizabeth Thorne describing the wedding of her son. Marjorie's photographs provide a record of the lesser known roles of women during the First World War. During the war she worked in the Woman's National Land Service Corps, later the Woman's Land Army, as a volunteer nurse and finally as a driver in First Aid Nursing Yeomanry (FANY). The donation also includes other photographs taken by Marjorie which record her peripatetic life as an Army wife in Britain, Ireland and Asia.

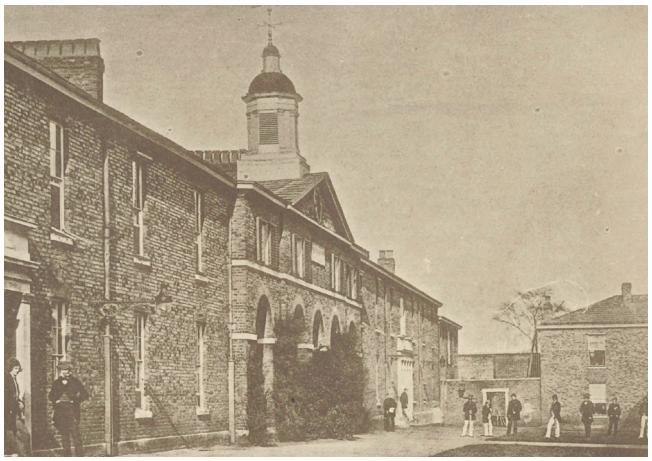
In addition to the collection relating to Marjorie Thorne were the papers and photographs of Elisabeth Thorne, nee Steveni, who married Cornelius (Tr. 1937.3). She was the daughter of an Army officer, who served with the Middlesex Regiment and in the Indian Army, and she was of Russian, Swedish and English ancestry. Elisabeth had been brought up in India and Persia before returning to England to receive her formal education. She later married Cornelius and became an officer's wife, following her husband out to Nigeria. The family were keen that the Steveni collection, comprising the papers of Elisabeth, her father, Leo Steveni, and his wife were all kept together. Papers of two generations of Thorne women who followed the colours as army wives offer interesting and alternative insights which do not appear in the papers of their OH spouses.

Working late through the night and into the early hours of the morning, during my visit to the Thorne family home in Cambridgeshire in September 2021, the last thing I inspected was a tin trunk containing what I had been told were ledgers. To my surprise, instead of being greeted by anonymous columns of figures, I found five letter copybooks which had belonged to Cornelius Thorne, the husband of Elizabeth Crosse and father of Cornelius, Marlborough and Joseph. Dating between 1863 and 1878, the letter copybooks record of the business activities which funded the attendance of the first three Thorne boys at the School. As a general merchant based in Shanghai, many of the letters provide an insight into the tea trade, the development of the International Settlement and the Taiping Rebellion. All of Cornelius' sons were born in Shanghai and the origins of the income from his properties and business interests built up in that city, and which funded his children's lives, were now revealed. Included in the letters are Cornelius' correspondence with his sister-in-law, Isabel Thorne, who was one of the Edinburgh Seven, the first group of women to matriculate as undergraduates in a British university.

After working through the wealth of material, which I had been shown by Jeanette and her brother James over a period of eighteen hours, it became clear that together it would form an important and useful addition to our special collections. Linking the records of the spouses and mothers with the Old Haileyburians would serve to deepen the understanding we have of their lives. The papers of Marjorie Thorne and the Steveni family have now entered the Archive and form a new dimension to the personal collections. Haileybury now holds a collection which provides a unique insight into the people who attended the School, their wives, families and their economic circumstances.

Very sadly on 16th February 2022, Joseph Peter Thorne (Tr. 1942.2) died at his home, severing the last direct link between the family and Haileybury. Peter and his eldest brother Cornelius had been placed in Trevelyan, rather than Batten, on account of the strong bond between the Thornes and Trevelyan's Housemaster, Charles Fair (CR 1912.3-1946.1). The family's generous gift will be a memorial to the two generations of Thornes whose connection with Haileybury spanned 117 years.

Presenting our Heritage: The new exhibition space in Clock House



A generous donation made to the Archives has allowed part of the interior of Clock House to be converted into an exhibition space and funded the start of the enormous task of digitisation of appropriate material to form a digital archive. The collections in the Archives have grown over the last decade and the lack of an appropriate space to display items has prevented them reaching a wider audience. Pupils, staff, OHs and visitors are now able to see some of the items in the collections which tell the history of the School, its pupils and the estate.

Designing an area suitable for displaying elements of the collection within the confines of Herbert Baker's interior of Clock House was never going to be an easy one. As luck would have it, shortly after the donation was made, I was lunching with the wonderful Philippa Glanville, a former Keeper of Metalwork at the Victoria and Albert Museum and during that afternoon she recommended a designer she knew and later kindly facilitated an introduction. Philippa's recommendation was John Ronayne who had, amongst other projects, redesigned the Hunterian Museum's displays, the Victoria and Albert Museum's Silver Galleries and worked on Handel's House. Our project presented challenges for John and myself: the limited space in a listed building and a need to maximise the flexibility of what could be displayed. John Ronayne's skills and experience allowed him to create a series of coherently linked display spaces within the existing interior. Working with Steve Meekins, of The Moule Partnership, John created a beautiful and practical display space which met the demands of the project brief.

The end result of the project has rendered Clock House into a jewel casket and for the first time items from the collections in the Archive can be safely, securely and elegantly displayed. When the visitor enters the building they are greeted by a hall dominated by an exhibition of flatworks and a large display case set under the stair case. The first two rooms the visitor passes on their journey are the stores and the Kipling Library. New research has demonstrated that the room holding the Kipling Library was the sitting room of Rudyard Kipling's (USC 1878.1) mentor and honorary uncle, Cormell Price (CR 1863.2-1874.2). This room housed Price's book collection which would later capture the imagination of the young Rudyard whilst at Westward Ho!. At the end of the hall, on the right hand side, is a large vitrine and to the left is a room devoted to displaying items from the collections in the Archives. John Ronayne's display cases are inventively lit and show off the exhibits beautifully. The addition of pull-out display drawers enables visitors to view additional material which would have been otherwise impossible due to the spatial limitations. Visitors can continue their tour by taking the stairs to the first floor, ending with a magnificent vista of the Main Quadrangle and the Chapel.

Once the vitrines and hanging system were installed, the second part of the exhibition project began, working again with Steve Meekins and the Moule Partnership to design the furniture to facilitate the display of items from the collections. To allow the greatest flexibility for mounting regular exhibitions, each piece of furniture was designed to prevent any artefact from being displayed via the backboards. Stands for decommissioned service revolvers, swords, medals, silver, books and manuscripts were manufactured to allow as broad a display of the collections as possible.

The initial stages of the Archives digitisation project has been successful thus far but is still ongoing. So far *The Haileyburian*, *The Imperial Service Chronicle* and *The United Services College Chronicle* have been digitised. All of these publications are fully searchable and available to staff and pupils through the HIKS portal. The creation of a safe, secure and easy to use system for other users is in development. The photographs of the East India College taken by Monier Monier-Williams in 1857 and William Fenning's (CR 1875.3-1910.3) collection of images of Haileybury, taken between 1880 and 1910, also feature in the digital archive. In addition, c.3000 house and sporting photographs have been digitised and these will become fully available once all of the meta-data has been added. The digitisation of items in the collections is a long term scheme which will make some items more accessible to the researcher but will increase the responsibilities for the archivists: the creation of a digital archive has added another collection in the Archive to be managed.

OPPOSITE, CLOCKWISE FROM TOP LEFT: The clock turret on the original North Block, c.1850; Antiquarian Society Exhibition, Bradby Hall balcony, c.1890; Antiquarian Society Exhibition, Bradby Hall, c.1890. The Bradby Hall (1888) was designed to provide an exhibition space for the various societies that operated in the School; Clock House, designed by Sir Arthur Blomfield in 1865, c.1870.

Detail: *Thangka with 516 Green Taras*, c.1800, Tibet. Photo: Steve Beeston.

FRONT COVER: Emma Denly in the Acykbourn Theatre. Photo: Steve Beeston.

ABOVE: Ella Rajda and Lola Patel. Photo: Steve Beeston.

PERSPECTIVES | CONTENTS