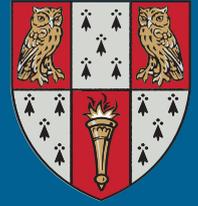


HUGHES



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Introduction

Dear Hughesians

Michaelmas Term saw the return of students, staff and Fellows after a very difficult and uncertain 2020/21 academic year. Social activities such as Formal Halls have returned, as have much in-person teaching and graduation ceremonies at Senate House. Importantly, it is now possible to have those small interactions with fellow Hughesians, whether in meetings, at supervisions, over lunch or just passing words in the corridors of the Margaret Wileman Building. These are the exchanges that have always made our community special and to see everyone back in college is a great pleasure to all of us.

Climate change and the environment have been very much in the news the past few months and the awareness of the importance of these issues grows all the time. In this issue of *Hughes*, we take a look at the progress of our Centre for Climate Engagement as well as a number of other important environment-related projects initiated by members of the college. These include one on using plastic waste in the oceans to fuel the ships collecting it, and another on what role nuclear power could or should play in mitigating climate change.

Related to this, of particular significance is the progress we have made in advancing the masterplan for future college developments and the exceptional opportunity Hughes Hall has to be an exemplar college in terms of reducing our carbon footprint and creating a biodiverse



environment. We plan to share more about this in our next issue.

This is Anthony Freeling’s last year before retiring in summer 2022. His eight years as President and a number of years before that as a City Fellow have given the college a valuable legacy. During his time, the college has been transformed in terms of student provision, academic achievement and substantial research applications in real world situations through the Bridge. Throughout Easter Term, we will celebrate the achievements of the past eight years with a number of virtual events and a rousing garden party in June.

Over the coming year we look forward to welcoming you back to Hughes Hall or meeting you at our various events around the world. It is wonderful to be with our friends again.

Yours

William J Conner

By-Fellow and Director of Institutional Advancement

COLLEGES EVOLVE

The President outlines the college's vision for the creation of an environmentally sustainable physical estate



My introduction to *Hughes 29* described how colleges evolve and focused on our intellectual growth and vision. To succeed, that intellectual evolution has to be supported by a corresponding physical evolution. Hughes Hall's commitment to fostering an innovative intellectual environment will require the creation of a matching sustainable physical environment.

In the future, the silos of historic academic and professional disciplines will not be sufficient to tackle the challenges and opportunities societies face. We must enable our students and academics to work together in fresh and innovative ways.

At a practical level, this means expanding and developing our physical estate to provide flexible spaces that foster both formal and informal collaboration, group working and teaching, and natural spaces for thought, contemplation and relaxation. If the college of the past saw students and academics locked away in individual cells to work, we will create spaces that bring people together.

Retaining our distinct identity

To us, Hughes Hall is not a series of buildings or grand edifices but an integrated whole – a village – a

vibrant combination of people and buildings where all the pieces connect and are greater than the sum of the parts... warm, welcome and open to all.

Yet colleges grow, almost organically. In 1973, when our college went mixed, there were still fewer than 50 students. By 2000, there were 250 and by 2010, 400. In 2022, we will be over 900, and we already have fewer students accommodated in halls than other Cambridge colleges. Like an adolescent child we have just gone through yet another growth spurt, and like that child, our physical development has been out of balance.

In 1895, the Pfeiffer legacy funded what we now call the Margaret Wileman Building. It was then the entire college. Today, we have many other buildings, nearly all developed in the past 35 years. However, they are disconnected in their style and location.

For over 100 years, the Margaret Wileman Building was the heart of our college incorporating the library, lecture theatre, dining hall and bedrooms. For the past 10 years, those functions have become dispersed. The dining hall is now a good walk away on what Elizabeth Philips Hughes would have believed to be forever the

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our physical development has been out of balance

cricket ground. The lecture theatre and library remain close together and near the original building, but student bedrooms are dispersed around the campus, across Fenner's at Gresham Court, and in a hodgepodge of houses in the town.

Our village risks becoming a dormitory town to the larger University.

No more! To bring our physical space back into balance, we intend to develop new facilities that encourage and

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intellectual evolution has to be supported by a corresponding physical evolution

inspire interdisciplinary innovation and learning, and physically bring together the disparate parts. This will, in effect, be a 21st-century environmental adaptation of a traditional college court. We have been making excellent progress on the Hughes Hall Estates Masterplan and have begun the process of putting the plan into action.

Once more, we will be a village with our own distinct identity and purpose within the broader urban development. We draw our inspiration in this from the ancient, medieval and modern worlds: the concept of the Roman Forum as a central meeting place of debate, commerce and community; the traditional design of Cambridge college courts and cloisters; and the functional lessons from modern innovation spaces. Additional

bedrooms for students will be part of the mesh of college life rather than solitary cells of study: they will provide a new and larger student heart to the campus. And all this will be achieved with environmental and sustainability considerations to the fore, as outlined in the following article.

Like Elizabeth Hughes's distant harvest, we are building not for the short term or even the medium term, but for the long term.

Our college, as ever, continues to evolve.



Dr Anthony Freeling
President



Our future heritage

Dr Anthony Freeling and Dr Aga Iwasiewicz-Wabnig underline how environmental and sustainability considerations are core to the revised Hughes Hall Estates Masterplan.

The Hughes Hall Estates Masterplan

We are living in the midst of a climate emergency, accompanied by a rapid decline in biodiversity, and growing waste and pollution. This has wide-ranging implications for our lives, including for the spaces in which we dwell, work, meet and rest. Hughes Hall recognises the urgent need to take steps to end dependence on fossil fuels and ameliorate other harmful environmental impacts.

Over the past few months we have refined earlier versions of the masterplan for the college estates in the short, medium and long term (5, 15 and 50 years). These take account of not only energy efficiency and sustainable operation, but also new thinking about the importance of the landscaping and biodiversity.

Our ambitions regarding the environmental sustainability of any new buildings planned within our estates development strategy have had a significant impact on our thinking. Our objective is to aim for a zero carbon outcome, and go beyond what is currently required. As part of this, we need the design process to take into account the full life cycle of a building and its elements.

Buildings for the future – some considerations

Timeless design

Any new buildings should be able to cope with the more extreme weather

scenarios likely to emerge as a result of climate changes by 2050.

Maximum energy efficiency means achieving state-of-the-art insulation and thermal management (for heating and cooling). We already have solar panels on Gresham Court and Fenner's, but aspire to have fit for purpose on-site power generation for the college estate, ideally providing clean energy, heat and power beyond the new buildings.

We must also achieve a good balance between bold and timeless design, so that we can avoid the need for exchanging any components before the end of their useful lifecycle.

Sustainable materials

Choices must consider embedded carbon, availability and sustainable sourcing, packaging and transport, durability, suitability for reuse and/or sustainable end-of-life disposal/recycling routes that are feasible and affordable.

One example of the challenges faced here is the use of concrete. Concrete is relatively cheap and has high thermal mass, but has significant issues around its ingredients. If the cement industry were a country, it would be the third largest greenhouse gas emitter in the world after China and the US. In addition, sandmining is a little noticed and largely unregulated activity that has serious environmental costs. The production

of many other common construction materials (steel, glass, aluminium) is also energy hungry and not yet decarbonised. We must choose our materials carefully, and look for the most sustainable alternatives.

Resource-efficient operation

All new buildings must be reliably highly energy-efficient, minimising any waste and ideally capable of carbon-negative operation. They should have no detrimental impact on the local environment and support biodiversity, for example, through appropriate plantings and other measures to accommodate urban wildlife. Furthermore, they should not require extensive complex maintenance.

Decommissioning

We need a clear idea of the expected lifetime of each building and its elements, and feasible routes for components re-purposing/recycling at end-of-life.

Climate-proofing our existing estate

Our ambitions and requirements for improving the energy efficiency of our existing estate are equally high. In many ways retrofitting presents an even greater challenge. For instance, older buildings such as the Margaret Wileman Building are harder to insulate sufficiently to enable them to be heated by technologies such as ground- or air-source heat pumps.



We plan to:

- reduce energy demand by improving fabric thermal performance
- audit the condition and efficiency of heat and hot water production and use
- replace gas and oil boilers with electrically powered alternatives
- improve building services efficiency of operation and control
- add renewable power generation where possible.

The Green Impact article on page 18 describes some of the improvements we have already made.

Biodiversity landscaping

Biodiversity, landscape and environmental considerations are critical to our long-term sustainability, especially as we abut Fenner's. Hughes Hall currently lacks outdoor

space and the revised estates strategy provides us with the opportunity to create unique landscapes in some additional garden spaces. Our new developments will therefore be as much about the external environments we can support and develop as about the buildings that we construct.

The most significant open space in terms of the green image of the college is the borrowed landscape of the Fenner's Cricket Ground. The Margaret Wileman Building has a relationship to cricket and Fenner's which is unique, and which represents the college and its legacy in the hearts of past, present and future Hughes Hall students. It is imperative that we protect it from further encroachment. The masterplan preserves the open frontage and vista from and to the building. It also offers the potential of an elegant landscaped 'heart' space at the centre of the college, framed by new and existing buildings,

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the Margaret Wileman Building has a relationship to cricket and Fenner's which is unique

which incorporates the existing sycamore tree. The spaces between new buildings and the circulation through them will be enhanced to create the sense of a unified campus and college identity.

Where appropriate, landscaping will enhance the wildlife potential of our grounds. Garden courts associated with accommodation buildings and low traffic areas are well suited to more informal garden treatments which might include water features, the installation of bird feeders and invertebrate/bird friendly planting choices.

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the masterplan preserves the open frontage and vista

Achieving our environmental ambitions

Achieving a good balance between building performance aspiration and affordability is central for the meaningful evolution of our estate to happen at pace. For new buildings, we look to appoint architects with a strong track record in sustainability and exceptional environmental credentials. We are seeking innovative ideas for flexible designs that allow for future upgrades, reconfigurations and retrofitting with new solutions that may become available – or more affordable, or better performing – over the next 20–50 years. This is to allow future-readiness and underpin further improvements even to buildings that already have excellent performance from their occupation date and are capable of sustaining it over a significant time.

The revised Hughes Hall Estates Masterplan is about providing for the long term. We are determined to ensure the buildings we create now will last for many decades, or indeed centuries, and perform far beyond currently expected standards of sustainability and efficiency. ●



Dr Aga Iwasiewicz-Wabnig is Director of Partnership Development at the Maxwell Centre, a Hughes Hall Governing Body Fellow and a member of the Estates Committee. She played a part (as chair of the House Committee at the time) in developing Hughes Hall's Carbon Reduction Policy. She is also involved in the Centre for Climate Engagement, and leads on the development of industrial strategy for Cambridge Zero.

A curse on 'Weather Instruments'!

Dr Jean Lambert, Honorary Archivist and Life Fellow, provides a light-hearted 19th-century view of climate vagaries in the form of a poem by one of our early alumna.

By the 19th century, significant progress was being made in the scientific study of atmospheres, particularly short-term weather prediction. Interestingly, A Roles, a student at Cambridge Training College (CTC), takes an amusingly negative view of these developments. Writing in May 1899, she blames the persistent, adverse weather conditions in Cambridge on the invention of meteorological instruments and, apparently, their installation in and around college.

Roles went to school in Greenwich and graduated from University College Cardiff before entering CTC in September 1898. She also received some of her education overseas, which may partly explain her disaffection for the local climate.

Obviously, Roles' witty accusation betrays no notion of the major change in global climate patterns that was apparent from the mid-20th century. Even so, in terms of the widespread use of equipment for meteorological observation her poem is historically illuminating. ●



In contrast to the poem, Hughes Hall's recent massive investment of resources in its Centre for Climate Engagement shows how seriously the college community takes the threat of climate change today. It is telling that the hottest-ever temperature officially recorded in the UK was in Cambridge University Botanic Garden on 25 July 2019, as its traditional weather board shows.



Katie Martyr, horticultural experimental assistant and daily weather reader for the Met Office, using modern day 'weather instruments' at the Botanic Garden's weather station

Meteorological Observations at the C.T.C.

OFT have I heard of wind and storm,
But in these tempests wild
I curse the "Weather Instruments"
In words nor calm nor mild.

The first was the Barometer
No mercury it bore.
The queerest thing that ever hung
Beside a College door.

By "highly educated mind"
This instrument was made,
To ordinary men its form
Deep mystery conveyed.

And you may find the new "Rain-gauge"
That rests upon the green,
And students pouring water in
May often there be seen.

To-night will be a rainy night,
They to the lawn must go;
The number which they then record
The "Weather Chart" will show.

And this they say they'll gladly do,
Whene'er the weather's wet;
And sometimes they remember it,
And sometimes they forget!

But since we've had these "Instruments"
No weather bright we've seen,
The cause thereof is "obvious to
Th'intelligence most mean."

May, 1899

A. ROLES

Everyone can do something

Faced with the repeated question ‘What difference does it make what I, as an individual, do to mitigate climate change?’ award-winning environmental photographer Maxime Riché (2005, Bioscience Enterprise) decided to seek some answers internationally.

After a few years working for the life science industry as a consultant, Maxime Riché embarked on a quest to seek out individuals who were acting to achieve positive environmental changes in their communities. In 2010 he founded Climate Heroes, a project and an NGO, to provide inspiring examples of women and men who were acting to mitigate climate change. It has since grown into a collaborative movement with contributing photographers and journalists joining from all around the world.

Maxime uses photography and film to decipher and explain the complex environment that surrounds us and our relationship to it. His stunning photos tell powerful stories designed along the same narrative structure that drives every mythological

hero story: a call to action leading to a quest and the hero eventually coming back to their community with solutions for a better world.

‘In the life stories of the people I met during this project,’ says Maxime, ‘I witnessed that they had all experienced a moment of realisation that they needed to act and find solutions for themselves and for their communities. Their solutions improved their own lives, those of others and the environment – and inspired others in doing so.’

From the citizens in their everyday lives to the officials involved in media or politics, these people demonstrate how major changes can be initiated by just one person. As the stories of these ‘climate heroes’ demonstrate, so often individual effort results in

collective – and even national – action to improve environmental outcomes.

They are compelling evidence that if everyone does something, the task of mitigating climate change will be more humanly reachable. ●

RIGHT

Women turning waste to wealth **Isatou Ceesay**

The waste problem in her village was huge. As a little girl, Isatou had carried shopping back from the market in a basket, but then everyone started using plastic bags instead. Now those bags were killing animals, vegetables weren’t growing because of rubbish in the soil and her villagers were burning plastic as fuel for cooking, releasing toxic fumes. In 1997, 25-year-old Isatou determined to do something about it. She and her friends were told they were ‘dirty’ for digging around in rubbish, that her plans couldn’t work because she was a woman and too young to be a leader. But Isatou believed in what she was doing and relished a challenge. . .

Climate Heroes is now a multimedia storytelling platform that seeks to provoke thought, foster change and inspire individual action to protect the environment. You can meet two more of Maxime’s climate heroes on pages 11 and 15, and read the full stories of these and other people:

- on the Climate Heroes website: climateheroes.org
- and in Maxime’s book, now available in French and in English: hemeria.com/en/product/climate-heroes-maxime-riche-english/

Maxime hopes that readers will feel inspired by the stories and respond by finding and implementing their own, amplifying the movement and setting others into motion in their turn.



MAI HOM MALL BROKEN RICE A1- SUPER
50 Kg
PRODUCT OF THAILAND

'Company boards need to create hope'

The climate emergency is increasingly accepted around the world so why isn't more being done? As COP26 demonstrated, governments are starting to act, but all too often not fast enough or going far enough. This is where businesses and corporations – and the Centre for Climate Engagement at Hughes Hall – have a vital role to play.

The CCE: accelerating climate leadership

'Climate change is a complex issue but many of the technological solutions needed to address it are well understood,' explains Emily Farnworth, Co-Director of the Centre for Climate Engagement (CCE). 'Yet these are not always being implemented rapidly enough or on a sufficiently wide scale.'

'The private sector has a massive role to play in helping to deliver the vital cuts in emissions needed. It can help to provide and accelerate climate leadership at the highest level to transform, transition and invest in a low carbon future.'

Julie Baddeley, Co-Director of CCE and Chair of Chapter Zero, argues that the next few years will be decisive in the context of make or break of the world climate emergency timetable. 'Young people are often well educated on climate change issues, but it's not just the next generation we need to educate. Within this time frame, the conviction of existing board members to drive change is critical.'

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the conviction of existing board members to drive change is critical

'The Centre for Climate Engagement and Chapter Zero can make a far-reaching difference. We are a two-way conduit between academia and the external worlds with a focus on challenging and enabling companies to build resilience and achieve net-zero goals.'

Catalysing and convening

Without board level understanding of the risks and opportunities associated with climate change the challenge will not be addressed swiftly enough, leaving organisations exposed and unable to transition. Through dynamic board leadership, companies can mitigate and adapt to the effects of climate change by:

- addressing their own individual risks and liabilities
- initiating long-term carbon and climate accounting
- helping to shape future regulatory frameworks
- and participating in the opportunities of a growing global green economy.

Disappointingly, the 2019 International Board Research Report, published by Harvey Nash/Alumni and London Business School's Leadership Institute, found that almost half of UK boards spent zero hours discussing climate change. Things have improved

since then – 60 of the UK's FTSE 100 companies have now signed up to the UN's Race to Zero which indicates a board-level commitment to net zero by 2050 or sooner.

The resources and expertise available to support businesses on their net-zero journey are mostly targeted at an executive audience and not non-executive directors (NEDs) who are currently underserved by existing initiatives. Yet if companies are to respond rapidly and effectively, they need well-informed NEDs. NEDs often sit on several boards and so can have a significant impact on multiple companies' decisions. They also tend to focus on long-term strategy.

The CCE works at international, national and local levels to build capacity on climate action amongst chairs and NEDs. Functioning as an independent convener and knowledge broker between boards and climate experts, the Centre acts as a catalysis to help boards address specific elements of climate change, and prompts them to fast track action.

The current emphasis is on increasing awareness and understanding of current and emerging climate action research and drivers, and sharing and implementing best practices that will accelerate positive change. ●



Putting theory into practice

Benoit Lavigueur

Maxime Riché writes: The dream of building his own eco-house was never a part of the plan. 'As far as I can remember, climate has played a very important role in my life. On the farm we would adapt our tasks, our work, actually our entire lives to the climate,' Benoit Lavigueur says. Growing up in Québec, Benoit was passionate about the environment and trained as a carpenter; he married his two passions by specialising in ecological construction and raising awareness about its importance. He soon discovered that theory is fine, but what does an ecological house look like? After a few years of encountering the same sentiment at events around the world, he decided to take the plunge and set out to build one of the most ecologically friendly houses of Canada...

Building communities at a global level – the Climate Governance Initiative and the CCE

In 2020 the CCE took on the Secretariat role for the Climate Governance Initiative (CGI). The CGI supports a global network of chapters that mobilises chairs, NEDs and independent directors by enhancing their skills in climate governance and climate action. This network provides a unique international platform for engagement with NEDs to make addressing climate change a boardroom priority. The core focus of the chapters is to promote the implementation of the World Economic Forum's Principles for Effective Climate Governance.

Liselotte Engstam, Governing Board Member of the CGI, explains how the CGI is working with the CCE to achieve this. 'The somewhat mixed outcomes of COP26 have placed a heavier weight of responsibility on businesses and industry to act now – and businesses are guided by boards. Boards need to think more strategically, and, along with governance, need

to provide guidance. We are overwhelmed with information about sustainability, but it's not clear what is relevant to how boards should engage; that information is still lacking.'

'We have to work out what is the platform? How do we put that platform in place? And how do we decide what and when is appropriate to add to that platform? CCE is helping us to do that. We each run our own national chapters, but the CCE helps us to pull it all together and work out what is do-able. This makes us much more efficient and effective.'

'With the help of CCE, we are enabling established chapters to share with new chapters, providing information on how boards can run workshops and facilitate peer exchanges. We are working with boards to share and accelerate the transition. This obviously also has spin-offs in other areas, not just climate issues.'

'Boards need to create hope. We are in a fight with time. In the next 3–5 years everything needs to happen. It is super obvious now – even more than before COP26.'

Liselotte Engstam, Governing Board Member of the Climate Governance Initiative

'CGI is super-dependent on the Secretariat at Hughes Hall to achieve our aims. Much of what we are achieving now could not continue without CCE's support, and progress would be much slower. Speed is critical. The CCE can orchestrate cooperation, streamline the information process, springboard the progress of new board members, and ensure insights and best practice are shared faster.'

'None of us know how boards will work in the future but canny businesses are already exploring new business models. I am hopeful. We have the opportunity to create a super-meaningful world, and this is possible.'

Since its foundation in 2019, the CGI has reached over 100,000 members across 21 countries. It continues to grow.

Building communities at a national level – Chapter Zero and the CCE

The CCE supports the first ever climate network for non-executive directors in the UK – Chapter Zero, the UK chapter of the CGI.

‘We established Chapter Zero,’ Carol Bell, one of the Founding Directors of the Chapter Zero board explains, ‘because although NEDs outnumber executives on boards, they were often an overlooked constituency when it came to climate change engagement. We recognised that NEDs have an important role in ensuring their businesses respond to the risks and opportunities created by climate change. But many lacked relevant information tailored to their role. Chapter Zero enabled us to get a lot of content and toolkits to help NEDs in place – swiftly and free of charge.’

‘Our initial objective was to ensure NEDs were comfortable about discussing climate risks in board meetings. To a large extent, we’ve done that. But the climate risk debate moves very fast and we need constantly curated content to enable

NEDs to keep up to speed. Initially, we set up on our own but since August 2020, we have formally been part of the CCE, which has enabled our work to move forward at a rapid pace with appropriate structure and support.’

‘The UK is leading thought on this subject in many different facets and companies are playing a critical role. My working life spans more than 40 years and Chapter Zero is the most extraordinary initiative in which I have participated. Companies don’t usually volunteer change, but in this instance many companies, encouraged by investors and their customers, have moved ahead of government regulation, especially in the UK.’

‘There is a massive opportunity for the CCE at Hughes Hall and Chapter Zero to be looked upon as a leading authority on climate change topics and potentially biodiversity – a place companies can turn to for a broad view, for information about the governance of climate change and to connect best practice between companies. I found the tools provided were very helpful in terms of being able to ask the right questions of the executives on the boards I am on as a NED. I was able to educate myself and understand the potential long-term impacts of climate change.’

Jo Harlow, Board Member of Chapter Zero

Since being set up in 2019 over 1,800 board members have joined the Chapter Zero network; 198 companies in the FTSE 350 have at least one Chapter Zero member on their board; and 51% of FTSE 350 member companies now have net-zero targets in place.

Chapter Zero shares its content, experience and knowledge, free of charge, with new and emerging director climate forums around the world, springboarding and fast-tracking their development.

The CCE – engaging NEDs on a local level

The CGI is global and Chapter Zero is national, but the CCE also focuses on engaging directors more locally.

‘The East of England is important in both an economic and climate context – reducing emissions and building resilience in areas such as retrofitting old buildings and restoring peat land are critical for the local area,’ Emily Farnworth says. ‘Our aim is that by working in a local, regional context, lessons can be learned and models developed that could be scaled up to a national level.’

The Centre is working with local directors and government leaders in the East of England to help deliver on the recommendations of the Cambridgeshire and Peterborough Independent Commission on Climate. An initial event organised with the Institute of Directors in the East of England brought the Commission’s findings to local businesses with a view to building engagement to address specific needs in the area.

From evidence to action

The CCE’s knowledge brokers scan the University’s wealth of leading

academic research for the most critical breakthroughs and translate that information, data and insights into a format accessible to chairs and NEDs. These include briefing notes, infographics and presentations. This effective transfer of knowledge enables NEDs and boards to benefit from the latest insights on complex, rapidly evolving topics, critical for investment decisions and change management planning, and supports the implementation of change.

The CCE also supports new areas of research particularly relevant for board members with a specific focus on climate law, governance, and organisational change. Research is carried out directly by postdoctoral researchers, and indirectly via partnerships and collaboration with relevant experts.

Looking ahead, the CCE plans to:

- continue to grow networks
- develop tailored and relevant briefing notes and publications to support board awareness
- host more in-person seminars and workshops to support peer-to-peer learning
- widen its focus to include outreach to general counsels and company



this effective transfer of knowledge enables NEDs and boards to benefit from the latest insights

secretaries who inevitably have a huge impact on what is discussed on boards.

‘COP26 is behind us, but this is not a time to relax – the climate change emergency is more urgent than ever. We are focused on understanding the best levers to get the boards to accelerate action,’ Emily explains. ‘The emphasis is on the role of law and regulation to provide carrots and sticks, on improving disclosure of climate risks and opportunities and on how financial mechanisms can be used to help scale the investment needed for an effective and just transition.’

‘A decade is a short time to make a real difference but that’s what we need to do. At the CCE, it’s early days but we are already gathering momentum. Now we want to scale up. Fast.’ ●

Find out more about:

- the CCE at climatehughes.org
- the CCE’s latest news and achievements over the last two years at hughes.cam.ac.uk/about/news/
- the CGI at climate-governance.org
- Chapter Zero at chapterzero.org.uk



Light by the litre

Illac Diaz

Maxime Riché writes: At 44 years old, Illac Diaz is no ordinary entrepreneur. From Peru to the Philippines, his NGO Liter of Light has already helped 382,000 Filipinos and 690,000 people throughout the world to get out of energy poverty. Thanks to a clever and environmentally friendly lighting concept using recycled plastic bottles, Diaz achieved his goal of bringing light to poor areas whilst avoiding reliance on traditional and centralised energy providers such as coal, nuclear or even hydro plants. Born in the Philippines into a wealthy Italian family, Illac studied economics, worked as an actor and enjoyed the city's nightlife. No one could have guessed Illac would one day become a social entrepreneur but it wasn't straightforward...

Blue diesel

Is it feasible to convert the masses of plastic waste in the seas into a fuel for the very ships retrieving it? Professor Nikolaos Kazantzis, Senior Member of Hughes Hall, is part of a research team based in the US that received a major grant to investigate this proposition.

The dangerous impact waste plastic in our oceans has on marine life and ecosystems, as well as the potential implications for the animal and human food chain, are increasingly well known. Every year between 4.8 to 12.7 million tons of plastic are released into the seas and form huge plastic islands in the oceanic gyres, the large systems of rotating currents.

Current clean-up operations are complex and energy intensive, and have never been systematically and fully evaluated. They often involve numerous vessels making lengthy voyages to the artificial booms capturing the plastics. The ships collect and store the plastic waste and then transport it back to port, where they unload and refuel. Apart from the economic and energy costs of this approach, it is estimated that such clean-up operations will take decades rather than years. This timescale means that environmental degradation may break down the existing marine-borne plastics into smaller fragments and microscopic pieces before they can be harvested.

One of the major challenges therefore, is to find a system for removing the waste faster than it degrades.

A team of researchers at Worcester Polytechnic Institute (WPI) in Massachusetts has received a prestigious two-year \$259,000 grant from the National Science Foundation's



(NSF) 2026 Idea Machine competition. This was awarded to advance the design and implementation of next-generation technologies to address the global problem of marine plastic pollution. The WPI's interdisciplinary project, 'Probabilistic analysis of converting marine-borne plastics into usable fuels', is led by chemical engineering professors Nikolaos Kazantzis and Michael Timko.

Turning waste into fuel

Nikolaos outlines the adventurous thinking behind the research. 'For the first time we are exploring the

feasibility of the onboard conversion of marine plastic waste into ship fuel in a scientifically comprehensive way. The funding will enable us to assess the technical and economic viability and carry out the appropriate scientific analysis.'

'Our research team is modelling a specialised reactor that converts harvested waste plastic using an innovative chemical process called hydrothermal liquefaction (HTL). This compresses the plastic at high temperature and high pressure into "blue diesel" (the name emphasises its

marine origins). This blue diesel could then be used by the ships themselves, enabling them to stay at sea for longer, eliminating the need for numerous return visits to port to unload and refuel, and among other outcomes, saving time, fossil fuels and money.'

Progress to date

The team is half way through the two-year project. Early results indicate that, under certain conditions, the proposed approach represents a feasible and appealing economic and sustainable option.

'The project is initially focused on an oceanic region on the West Coast – the Great Pacific Garbage Patch – as this is a baseline case prototype characterised by reliable data,' Nikolaos says. 'We modelled several clean-up scenarios that took uncertainties into account with regard to the surface concentrations and components of the plastic waste – something that had not been addressed before with analytical computational tools.'

The thermodynamic performance of a shipboard HTL process was evaluated to determine whether (and when) the process could provide sufficient energy to power itself plus the ship. A framework was then developed to evaluate the implications of shipboard plastic conversion on fuel use and clean-up times. The results provide valuable insights into the potential use of shipboard conversion technologies for accelerating the removal of plastics from the ocean. It is anticipated that the framework should prove useful for guiding future work in this area.

The next steps

Based on this promising analysis, the team intend to evaluate the effects of additives, contaminants and ageing

on HTL oil yields, and the suitability of plastic-derived fuels for existing fuel delivery systems and engines. In addition, analytical computational work will further explore certain thermodynamic aspects. Expanding the range of possibilities will involve additional development and refinement of the modelling framework. The team have also begun to investigate similar issues in rivers, such as the Danube.

'The project is still in the early stages,' Nikolaos flags up, 'but it appears that economically, the HTL system is a modest additional cost relative to the clean-up vessel and boom system. Even so, one of the most difficult hurdles to overcome is convincing people that the extra cost of this environmentally friendly proposition is worth the uncertainty because of the appealing sustainability profile and energy savings. The next challenge will be to creatively structure the portfolio of the public policy responses of collecting and removing waste plastic – including the impact on marine and human health. We will have to have reliable rigorous scientific responses to inform and incentivise.'

Despite the uncertainty, Nikolaos is excited by the prospect. 'We have an expert interdisciplinary team of wonderful people. The problem is complex and should not be underestimated; that could be paralysing, but it will not deter us from being bold. I am proud of what we have accomplished so far collaborating in a collective effort.'

'At the moment this is only a small contribution to the solution of this massive problem, but our intention is to demonstrate the desirable advantages and then scale it up. If successful, this will advance the

design of integrated shipboard collection and reactor systems that could capture and convert marine-borne plastics into useful products. Our ambition is that the project will have a global transformative impact on this otherwise overwhelming environmental problem! ●



accelerating the removal of plastics from the ocean

A collective effort

Nikolaos is working with colleagues at the Chemical Engineering Department, WPI, including Elizabeth Belden, doctoral student and recipient of a National Science Foundation fellowship, Professor Michael Timko and Eduardo Italiani, an undergraduate student. Other members of the team include Professor and Nobel Laureate (Chemistry 1986) Dudley Herschbach, Department of Chemistry, Harvard University, and Dr Chris Reddy and Dr Hauke Kite-Powell at Woods Hole Oceanographic Institution.

You can read the full paper on the website of the Proceedings of the National Academy of Sciences: www.pnas.org/content/118/46/e2107250118

Hughes wins a second Gold Green Impact Award

Aldabra Stoddart, Research Translation Manager (Sustainability) at the Bridge at Hughes Hall, describes the changes that are being made in the college environment to help combat climate change and promote wildlife on campus.

Hughes Hall has won a second Gold Award from the NUS Green Impact scheme, despite the pandemic shutdown last year. This was challenging, especially since key members of staff and the MCR Committee were working remotely and not allowed onto the main site!

Reducing our energy and water emissions

We have set Science Based Targets for decarbonisation, following the University's plan to move colleges to zero emissions from gas and electricity by 2048, with around half the gains to be made by 2030. However, we want to move significantly faster than this. We have already changed to a renewable electricity supplier which uses local Cambridgeshire solar energy and wind, along with some hydro, and have our own solar panels on Gresham Court and Fenner's. These feed power into the national grid if we are not using it ourselves.

Our next priority is to replace the natural gas currently used for space and water heating. This will be a considerable investment, possibly involving a ground source heat pump for the main site. We aim to install this by 2028, perhaps as part of plans to increase onsite student accommodation and replace most of the current student houses. These are typically Victorian and difficult to insulate to modern standards.



'Hughes Hall should be regarded as a role model of college-wide effort to promote sustainability. From the audit we could see a huge devotion to various areas and a strong collaboration within the community.'

Cambridge Green Impact Challenge

As well as ensuring our energy supply is renewable, we are working to reduce energy and water use. Many of our light switches in public areas are controlled by motion sensors, so that they cannot be left on accidentally. In the Margaret Wileman Building, which is listed, the historic light switches in the corridors are retained as a decorative feature but the lights are automatic. Other initiatives include fitting aerated shower heads across the estate and water-saving devices on urinals.

Tackling our indirect emissions

On a wider scale, we have started assessing Scope 3 (indirect) emissions, which include emissions from the supply chain, staff and student lifestyles, and investments. Our catering supplies are organised

through an inter-collegiate consortium which buys MSC-certified fish, Red Tractor certified milk, and meat raised to explicit animal welfare standards through an agency which has itself committed to carbon zero operation by 2030 and which undertakes visits and audits on our behalf. Our laundry is outsourced to a state-of-the-art facility, opened in 2020 in Papworth, that minimises requirements for water and heat.

In addition, we have reviewed college procedures, and incorporated eco policies into staff and student inductions.

A zero carbon target

We have already adopted Science Based Targets as a pathway to reduce our greenhouse gas emissions, a

methodology widely adopted in the University of Cambridge and beyond. By 2030, the college aims to become zero carbon for Scope 1 and 2 emissions, and net zero for Scope 3 emissions. You can read further details about our Carbon Reduction Policy in www.hughes.cam.ac.uk/wp-content/uploads/2021/06/Hughes-Carbon-Reduction-Policy-agreed-by-Council-Nov-20191.pdf



Holes to make wildlife boundary 'corridors' (left); multi-storey(!) nesting sites for swifts – and pigeons (below); raised vegetable beds (bottom of page)

Sustaining our campus habitat

Another important area of action has been in our grounds. Environmental improvements include a new composting area and some raised beds for student use. We have installed a wildlife corridor in the boundary fence and now provide water for birds and hedgehogs. In addition we have installed boxes for swifts under the eaves on Wollaston Lodge. These have been used enthusiastically this summer – by pigeons! ●



Managing the risks of Artificial Intelligence

Today Artificial Intelligence (AI) permeates every aspect of our lives but are the ethical considerations about how it is wielded matching up to the extraordinary leaps in the technology?

A world first

Humankind has been dreaming about intelligent machines for thousands of years: even Ancient Greek mythology incorporated the idea of intelligent robots such as Talos and artificial beings. In the mid 1950s AI generated a lot of excitement, followed by repeated slumps and hypes in interest until the early 21st century, when reality began to match imagination. Today AI is transforming every sector of society and the economy, from Fitbits to spaceships and from mobiles to medical robots. The UK government recently released its AI strategy, seeking to incorporate AI into almost every sector. Institutions and organisations including the military, the law, education and the NHS, as well as international tech giants such as DeepMind, Facebook and Google, are all involved with shaping our futures with these technologies. It is imperative that they do so responsibly.

It could be argued that the present transformation of society is on a par with the Industrial Revolution. Looking back, broadly speaking, it was the global north that benefited but even there industrialisation



The ethics of AI have been somewhat overlooked – as is this statue of Talos which is hidden away in a quiet corner by the Cambridge Guildhall. Talos was the legendary man of bronze that protected Minoan Crete and, as such, is one of the earliest examples of humans pondering the possibilities of AI.

could be held responsible for enormous political, regional and social upheavals. The extent of many of the long-term negative consequences for society and the environment are only just being realised. As the world catapults into this next major 'revolution', how do we ensure

from the start that AI is used for the benefit of people and the planet, and aligns with fundamental ethical considerations in both the medium and long term?

The new Master of Studies in AI Ethics & Society, supported by

Hughes Hall, is designed to square up to that challenge.

Staying ahead of the curve

There is a great deal of research and teaching surrounding the development and use of AI, but the Cambridge MSt in AI Ethics & Society is the world's first degree in its ethical and societal implications. This is not a technical degree or 'how to do' machine learning; the focus is on the 'hard questions' and seldom-aired impacts. A two-year, part-time course, it is aimed very much at already working people who aspire to be leaders in this technology.

'As educators on this course we have two different challenges,' explains Dr Stephen Cave (1996, Philosophy) Fellow of Hughes Hall, and Director of the Leverhulme Centre for the Future of Intelligence. 'We have a mature, diverse, international student cohort from a rich mix of working backgrounds including business, policy, technology, law and communications. We even have a professor in bioethics on the course! Consequently they are all at different starting points. Some may have developed AI systems, but haven't written an essay in decades; they may be deeply involved in the development of technology but less experienced in assessing its ethical impact. In contrast, the lawyers might have less experience of the technology but can think through systematic ways to regulate it.'

'Our first challenge is to create content so that this extraordinary mix will equip all graduates with a coherent and consistent skills and knowledge base. Personally, I have found the first term of this course really exciting; it's great to be in the room and see the synergies. This isn't just about top-down teaching; we are all learning from each other.'

'The second challenge is that this is a rapidly changing field where there is no established canon and many controversies. The course is at the cutting edge and will keep evolving to ensure its graduates will have the skills to stay ahead as things change.'

The first cohort

When the course was announced there was worldwide press coverage. The original intention was to accept 25 students but the quality and quantity of applicants was so high that 44 were enrolled. This resulted in an outstanding group of students drawn from a surprising range of sectors and countries. It is hoped that in the future bursaries can be established to attract an even more diverse pool of applicants.

Despite travel restrictions, most students turned up in person for the first residential week at Hughes Hall in September, although a few did Zoom in from Australia and the US. 'There was an incredible atmosphere and very positive feedback from the students,' Stephen says. 'It is brilliant working with people, some of whom are already leading in this field, and we are building a fantastic learning network.'

Hughes Hall was keen to host the residential parts of the course. The college is the logical home for this innovative degree, as it has positioned itself as a conduit between academia and society – just like this MSt. In addition, recognising the growing importance of AI and its implications, this is one of the core focus areas of the Bridge initiative at Hughes, supported by the President, Dr Anthony Freeling, who has a strong interest in this area.

Measuring impact

The expectation is that the MSt in AI Ethics and Society will develop leaders

who can understand the complex socio-technical systems underpinning AI opportunities and challenges, and confidently tackle the hard AI questions facing their workplaces. These include privacy, surveillance, justice, fairness, algorithmic bias, misinformation, microtargeting, Big Data, responsible innovation and data governance.

'Our hope is that those making important appointments in AI will soon be looking for candidates with our degree, who have acquired the expertise to assess and monitor the societal impact of AI in crucial systems,' Stephen explains. 'Looking ahead, we will work with what will become our alumni network on how they are using what they have learned and develop case studies to make it even more relevant. Our students are all working throughout the two-year course and so it should have an impact in the external world early on.'

'From Hollywood, we are all familiar with the idea of AI rising up against humanity but there are so many risks far more immediate and dangerous than a "robot revolt". Our ambition is that our pioneering programme will create champions of a values-driven ethical AI so that this amazing technology is used responsibly and as a force for good' ●

For further information about the MSt in AI Ethics & Society, please visit: lcfi.ac.uk/master-ai-ethics/

Applications for the course starting in October 2022 are now open. The closing date is 31 March 2022.

Is a nuclear renaissance finally underway?

A highly emotive topic, this article explores the role nuclear power might play in the decarbonisation challenge. Could – and should – a new generation of British nuclear plants secure a dependable energy supply and cut emissions?

As world leaders gathered in early November 2021 for COP26, attitudes to one technology divided opinion more than any other – nuclear power. Ever since the Kyoto Protocol was signed by up to 84 countries in the late 1990s, nuclear power has struggled to find its place in the global decarbonisation toolkit.

At some level the COP26 meeting continued a United Nations' tradition of avoiding the nuclear power debate. As the delegates gathered, the atmosphere in Britain around energy policy was becoming febrile. There was a frightening rise of wholesale natural gas prices forcing numerous smaller retail energy companies into bankruptcy; highways round London were blocked by activists from the pressure group Insulate Britain; and there were the aftershocks of the chaotic fuel panic at the petrol pumps of southern England.

The nation was anxious, but slowly attention has started to turn to a neglected technology humming along quietly in the background. What energy technology offers low-carbon credentials and steady supply? The current UK government's answer appears to be nuclear power.

Back on the agenda

While global attitudes to nuclear power have mostly been disdainful in recent years, the UK has long been rather different. All London governments

from Tony Blair's onwards have been keen to achieve a nuclear renaissance. Furthermore, British public attitudes have not been heavily dominated by anti-nuclear sentiment. The British establishment has accepted the low-carbon credentials of the technology and seen merit in the fact that a nuclear power station can run continuously for months on end without concern for the weather or short-term fuel supply. Ironically, in contrast to many other European countries, where the most influential political voices against nuclear new build have come from the green-left, in the UK the greatest aversion has arguably been from the free-market right. For them nuclear new build has simply been too expensive and too risky for private investors.

It is in this context that Boris Johnson's form of Conservative Party politics has reinvigorated the argument for a nuclear renaissance. Just as Margaret Thatcher reshaped the party of the patrician right into a cadre of entrepreneurs, so is Boris Johnson now seeking to reshape his party into an engine of national self-reliance. His government is unusually aggressive in trying to get the nuclear renaissance properly underway. Johnson seemingly shares Blair's expressed Labour view from years gone by that nuclear power should be 'back on the agenda with a vengeance'.

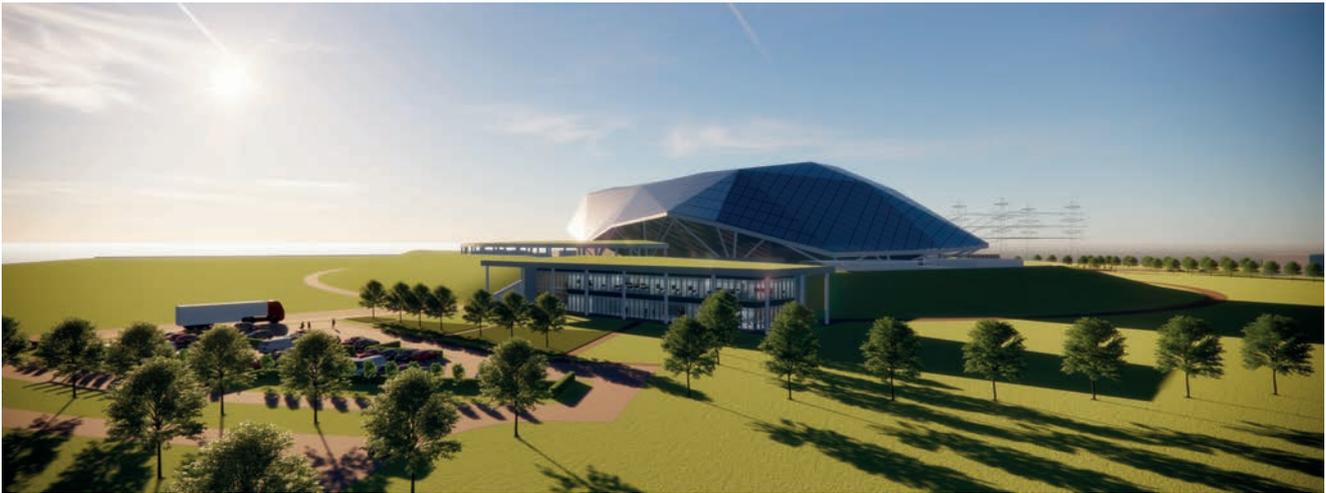
The UK is not ashamed to stress the virtues of nuclear power, but the

government is firm in its desire to end the high costs and financial risks. In the build-up to COP26 the UK government had been busy building momentum for new nuclear technology development. In October 2021 Dr Kwasi Kwarteng, Energy Secretary and Trinity College Cambridge alumnus, published the Nuclear Energy (Financing) Bill which will radically reshape the funding of new nuclear power stations. The new framework, known as the Regulated Asset Base, or 'RAB', allows energy companies to receive payment by results during construction with a levy effectively applied to consumers' bills. Previously new nuclear power projects only got paid once they were generating power. The RAB approach shares more project risk with end-user consumers and should greatly reduce overall finance costs – a major part of such capital-intensive technology programmes.

Developing a new nuclear technology

Johnson and Kwarteng are not merely content with accelerating the roll-out of the current very large nuclear stations at a special set of suitable sites: Sizewell in Suffolk is likely to be next. They are also keen to encourage the development of a new technology, the Small Modular Reactor (SMR).

Through the use of factory-based manufacturing of large component modules, costs should fall when compared to the traditional approach



Rolls-Royce Small Modular Reactor

of craft construction in the wind and rain on-site. Derby-based Rolls-Royce has a particularly interesting technology, albeit relatively large by SMR standards. Rolls-Royce's new design will generate 470 megawatts of electricity compared with the 1,630 megawatt reactors currently being constructed in the more traditional way at Hinkley Point in Somerset. The new SMRs are very well suited to construction on the sites of smaller first generation nuclear power plants or even potentially former coal-power industry sites. While COP26 was underway

Kwarteng's department announced a grant of £210 million to help Rolls-Royce advance its new technology.

The Rolls-Royce SMR is a technology for the 2030s and beyond, but UK government enthusiasm for nuclear innovation looks even further ahead. The next big announcement is expected to be the site of a new demonstration fusion reactor known as STEP. No human-made fusion device has ever controlled the energy generated by fusion for more than a few seconds and none has yet produced more energy than was

supplied. Nevertheless, the science of the sun and the history of the hydrogen bomb reminds us of the massive untapped resource that fusion energy could represent – if only we can make it work continuously and dependably. Britain is positioning itself as the key global player in such matters, building a cluster in southern England dedicated to fusion commercialisation.

In Britain at least, the nuclear renaissance would finally appear to be underway. ●

Professor William J Nuttall

For more than 15 years Open University Professor and Hughes Hall Governing Body Fellow Bill Nuttall has been researching the potential for a nuclear renaissance. Working with co-editors, in 2020, he brought together a range of experts to consider the recent flurry of activity around private sector fusion in a book entitled: *Commercialising Fusion Energy (IOPP)*.

During COP26, Bill found himself on Russian TV talking about nuclear power in the UK generally and in Scotland in particular. His other

recent views on similar topics can be found at The Conversation online newspaper and the multimedia website politics.co.uk

On the wider questions of nuclear renaissance, the publication of a completely revised second edition of his book, *Nuclear Renaissance – technologies and policies for the future of nuclear power* is being planned by CRC Press (Taylor and Francis) for publication in the summer of 2022. The first edition emerged in 2005, just as the ideas of nuclear renaissance

were taking hold in energy policy circles. The new edition is also timely, as it seems that 2022 could be the year that sees a British nuclear renaissance really take off.

Bill serves on the Management Committee of Cambridge Nuclear Energy Centre and is an Associate Researcher of the Energy Policy Research Group at the University of Cambridge. He is Professor of Energy at The Open University.

Challenging times, changing processes

Andrew Dunn, Development Officer (Database & Information Manager), reflects on the continuing advances in technology and communications and their impacts on the close-knit but international Hughes Hall community.

In 2019, I made a welcome return to alumni relations by joining the team at Hughes Hall. I had finished an eight-year stint working at the Cambridge University Development Office (CUDO) in 2001 and after working in IT for the pharmaceutical, health & fitness and tourism industries, I jumped at the chance of once more working with the University.

I didn't need much convincing. Hughes Hall brings back great memories for me from the 1980s when I spent my school holidays watching the cricket on Fenner's. A Hughes alumnus at the 2019 Alumni Festival reminded me of the occasion when a cricketer from the West Indies hit a six out the ground and smashed a window in the Margaret Wileman Building. I was at that game and back then I never would have thought that 30 years later I would be working in the same building – it's amazing where life takes you!

An evolving landscape

The landscape around Fenner's has changed so much since that time, and the processes around how we manage work in the alumni relations team have changed too. For example, I was involved in the administration of the recent Hughes Hall telephone fundraising campaign. This was all done electronically, using bespoke software. Back in the mid 1990s at CUDO it involved paper-based calling cards and donor acknowledgement



letters were sent out in the post; using email was incomparable to how we use it today.

Even in the short time that I have been at Hughes Hall, there have been significant changes. Who would have imagined that six months after I joined, the world would be hit by a pandemic forcing all but key workers to work from home? The use of Zoom and other such platforms to hold virtual

meetings with colleagues and the wider international Hughes community was never really a dominant part of our lives in comparison to what it is now. Technology is certainly a major driving force behind so much of what we do. Social media is an important influence too; it's astonishing to think that you can target specific audiences based on responses to postings either on Facebook or Twitter.



Email, of course, has massive benefits. Many of you will be reading this magazine after it popped up in your inbox – an excellent, cost-effective and environmentally friendly way of delivery. However, a 2020 report stated that approximately 64 million unnecessary emails are sent by Britons each day, such as acknowledgement emails containing the single word ‘thanks’. These are pumping thousands of tonnes of carbon into the atmosphere. The report calculated that if each of us in the UK alone sent one fewer email each day that would reduce our carbon output by 16,400 tonnes, the equivalent of taking over 3,300 diesel cars off the

road. When you look at the carbon footprint of all things IT you begin to get a picture of how huge it is and how it is likely to grow. No doubt there will be more technological changes and we will continue to monitor these against any potential negative impacts. Such changes do, however, offer an important potential tool as we strive for better environmental outcomes.

It’s certainly a fascinating time to be working at Hughes. We have some exciting plans in the pipeline and our team will play a key part in their delivery. ●

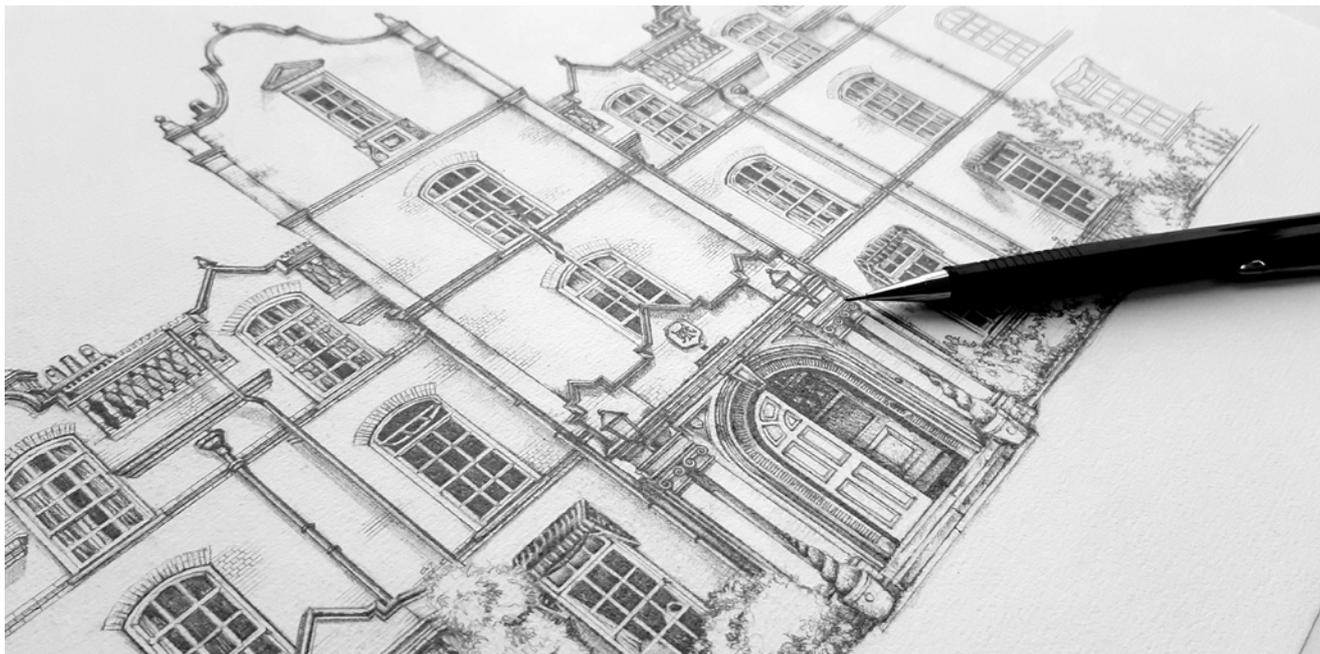


Hughes Hall’s IT team: A forward-looking strategy that ensures our IT is fast, safe and effective is critical to the smooth running of Hughes Hall and its global community, and, indeed, the welfare of our students. Paul Blaxill, IT Manager (right), and Owen Fisher, Computer Officer (left) – ably supported by Smokie the cat – work assiduously behind the scenes to achieve this.

Staying in touch

Whatever platform you use to communicate with us – whether it’s an in-person visit, a letter, phone call, email or social media post – we always enjoy hearing from you. We launched our Keep in Touch form in early 2021 on our new-look Hughes Hall website to make it easy for you to let us know of any changes in your details. Please visit www.hughes.cam.ac.uk/alumni/contact-us/

You can also read or download *Hughes* on our website at www.hughes.cam.ac.uk/about/hughes-magazine/. If you would like to amend how you receive your copy of the magazine, please contact the Alumni Relations and Development Office.



Thank you to all our donors in 2020–2021

The following list includes all those who have made a donation, gift-in-kind or a legacy pledge to Hughes Hall during the college's last financial year (1 August 2020–31 July 2021). We would also like to thank the many who have given their time and expertise in support of college activities. Your generosity has made a great difference to Hughes Hall, enabling the college to move forward strongly after the disruption caused by the pandemic.

1950s

Gillian Scales

1960s

Anonymous x 3
Sarah Barstow
Nora Butler
Patricia Davies
Muriel Gurbutt
Jennie Henderson
Susan Pawson
Elizabeth Raitt
Judith Tovey

1970s

Anonymous x 7
Clare Addison
Polly Bird
Juergen Brautmeier
John Buckeridge
Steven Clifton
Nicola Darlington

Robert Harley
Pamela Hinton
Judith Hodson
Kenneth Jones
Jean Lee
Ian Lewis
Andrew Lovell
Jagath Mawella
Margaret Pearson
Hilary Prescott
William John Read
Michael J Reiss
Elizabeth Rothwell
Aileen Taylor
Susan Wright

1980s

Anonymous x 3
Moses Acquah
Teresa Barnes
William Bondareff
Alan Buzza

Suzy Carter
Robert H Y Chan
Han Teck Choo
Jeff Cook
Dennis Davies
Stella Dudzic
Jo Gallagher
Rebecca Kenneison
Frank Lee
Kathleen Leitao
John McBride
Chris and Wendy Parker
David Peters Corbett
Ulrich Pohlmann
Robert Powell
Byron Russell
Martin Sebaldt
Heather Staniland
Evan Wallach
Alan Walters
Naomi Wineman
Victor Zachariades

1990s

Anonymous x 7
Anne-Lise Ammeux-Gere
Madaleine Binning
Katharine Brewer
Rodney Brown
Winston Chiu
Widge Devaney
Marilyn Emerson
Kris Hinterseer
Jonathan Hirst
Richard Khaw
Li Lian Khoo
Chihiro Kojima
John Law
Harbinder Mangat
Liam Mooney
Fergal O'Reilly
Sonali Pathirana
Edward Sankey
Jason Saunders
Shigeki Takebe

Kevin Walsh
Mark Williamson
Alistair Wilson
Simon Young
Jeffrey Ziegler
Andreas Zoupas

2000s

Anonymous x 6
Carl Bradshaw
Katherine Brokaw
Catherine Catty
William Charnley
Alfred Cheng
Lynn Clarke
Bruce Clements
Ryan Close
Marco Costanzi
Kyle Coveny
Stephen Elliott
Ann Farrell
Rene Gonzalez Campos
Liane Grant
Rose Griffiths
Joshua Harper
Martha Hart
David Hemsley
Moa Höjjer
Bjarki Holm
Jill Hutton
Atsushi Iguchi
Sarah Ineson
Marilyn Jackson
Chenchen Jin
Helen Johnson
Yiannis Kourris
Heejin Lee
Julie Mahoney
Zarko Maletin
Ashwin Mathew
Sarah Mills
Hiroyuki Miyake
Stuart Moore
Abdul Alla Qureshi
Jonathan Richardson
Neha Sethi

Keir Shiels
Leo Siu
Code Sternal
Wayne Williams
Christopher Worsley

2010s

Anonymous x 3
Richard Agala
Ho Yin Au
Neelabhro Bhattacharya
Max Bull
Jonathan Chan
Amy Chen
Bruce Clarke
Lucinda Farrett
William Fitzpatrick
Marco Gasparetto
Amit Grover
Ebenezer Antwi Gyamera
Taylor Edward Harris
Stephen Irish
Ken Ishikawa
Abinayah John
Alexander Kouptsov
Kirsten Lees
Yuqun Lin
Ruth Lucas
Myriam Maalouf
Kevin McCarthy
Fangda Mei
Lucy Miller
Oliver Pambos
Marjun Parcasio
Jonathan Pattrick
Michael Robson
Zhi Wei Set
Ping Shum
Jasmin Silver
Terry Skolnik
Robert Stockton
Huiyao Tang
Justin Tracey
Toshi Tsuruhara
John Walker-Robertson
Frances Webber-Easton

Joy Williams
Patrick Yip
Yi Zheng

Legators

Nick Gray (former senior member)
Keith McVeigh (former senior member)
Kenneth Turner (former senior member)

Seniors and staff¹

Anonymous x 5
John Barker
Martin Bellamy
Peter Britton
Hilary Burton
Jack Clarkson
William Conner
Gishan Dissanaik
Peter Dudley
Anthony Freeling
Andrew Gould
Sarah Hoare
Ian Hodge
Nevin Hughes-Jones
Jon Hutton
Aga Iwasiewicz-Wabnig
Philip Johnston
Nikolaos Kazantzis
Eric Levy
Edwin Leong
Elizabeth Moore
Charles Moseley
William Nuttall
Sally Pinnock
John Raffan
John Rawlings
Philip Raymond
Corinne Roughley
Kishore Sengupta
Paul Siklos
Peter Studdert
Jonathan Taylor
Paul Tracey

Caroline Trotter
Lars Vinx
Kern Wildenthal
Annemarie Young

Friends

Anonymous x 2
Chiu Family: Regina, Joy and Winston
Roger France
Norman Ho
Kathleen and Kevin Leitao
Barbara Messamore
Susan and Mike Pawson
Nicholas Porter
John and Sylvia Raffan
Anselmo Reyes
Dan Saxon
Jo Studdert
Kern and Marnie Wildenthal
Jennifer Williams
Patrick and Linda Yip

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Bacon Foundation
Beryl Alexander Charity
Caisson Investment Management
The Calgary Foundation
The Conduit Trust
Dipont Education
The Doris Zimmern Charitable Foundation
Epic Games
The Hatton Trust
Ho Tim Foundation
HSBC Group Management Services
The Owen Hart Foundation
Tai Hung Fai Charitable Foundation

¹ who are not also alumni



Hughes Hall keepsake

Architectural artist Sophie McIlwaine (2018, Building History) is selling prints of the Margaret Wileman Building with 20% of each sale going to our Student Support fund.

If you would like to support the cause and purchase a drawing, head over to Sophie's website www.sophiemcilwaineart.com/product-page/hughes-hall-cambridge

Ways of giving

Help us to safeguard Hughes Hall for generations of students to come by making a gift via our online donation form at www.hughes.cam.ac.uk/alumni/make-a-gift/

Hong Kong: we have set up the Hughes Hall Hong Kong Limited account, which ensures that **we are able to accept donations via bank transfer in a tax-efficient manner.** Please visit www.hughes.cam.ac.uk/alumni/ways-of-giving/overseas-giving/ or contact the Alumni Relations and Development Office for details.

USA: for alumni resident in the USA we would advise **your gift to be made to Cambridge in America (www.cantab.org) for maximum tax efficiency**, indicating that you wish to direct your gift towards Hughes Hall.

Canada: the University of Cambridge is recognised as a 'prescribed university outside Canada' **eligible for charitable status under Canadian tax law.** This means that donations to Hughes Hall from Canadian residents are tax deductible. From Canada, you can make your donation directly to Hughes Hall in the usual way and we will then forward you a receipt issued by the University of Cambridge acceptable to the Canadian tax authorities. *Please request a receipt from the Alumni Relations and Development Office when making your gift.*

Europe: Hughes Hall is a registered beneficiary of the Transnational Giving Europe Network, which means that **you can make a donation to the**

college and claim your local tax benefits. We are currently able to accept donations from TGE Partners in Italy (gifts to scholarships and bursaries only), France, Germany, Spain and Greece. To make a tax-efficient donation, you can do so online by visiting our Hughes Hall-TGE donation page donate.transnationalgiving.eu/landing/hugheshall or by contacting the TGE partner in your country of tax residence stating that you wish your gift to be directed to Hughes Hall. *For more information visit www.transnationalgiving.eu/donate*

Other ways of giving

Leaving a legacy: by remembering Hughes Hall in your Will, you will be able to safeguard the college for future generations. We understand that you may wish to keep your decision private, but if you do choose to inform us that you have included Hughes Hall as a beneficiary, **we would like to recognise your generosity during your lifetime through membership of our legators' circle 'The Marsh Marigolds'.** *Find out more at www.hughes.cam.ac.uk/alumni/ways-of-giving/leave-a-legacy/*

Payroll Giving: many companies enable their employees to participate in Give As You Earn (GAYE) and Payroll Giving, which allows you to make a tax-free donation directly from your UK salary or pension. Payments are normally of a set amount, made monthly, but it is also possible to make one-off payments. Your employer may also match your

donation, **which could as much as double the value of your gift to Hughes Hall at no extra cost to you.** *Contact your HR or charity department at work to find out more.*

Gift Aid: UK taxpayers can make tax-efficient donations to the college through the Gift Aid Scheme. By completing a Gift Aid Declaration, donors allow Hughes Hall to claim back the tax equivalent to the basic rate of income tax (20%). **This means that we receive an extra 25p for every £1 you give at no extra cost to you.** UK donors paying higher rates of income tax, either at 40% or 45%, can also reclaim the difference between the basic rate and the highest rate of tax on the gross value of their gift. *If you would like to make a Gift Aid Declaration, please visit www.hughes.cam.ac.uk/alumni/ways-of-giving/uk-giving/ or contact the Alumni Relations and Development Office.*

Volunteering: during the pandemic the college has had to adapt swiftly, exploring virtual ways of engaging with our global community. In doing so, **the support of alumni volunteers from around the world has been invaluable.** If you would like to offer your expertise – whether delivering a workshop or hosting a networking event – we would be delighted to hear from you. *Please contact the Alumni Relations and Development Office to discuss how you can help.* ●



Staying in touch

A farewell note

Jennie Williams, former Deputy Development Director at Hughes Hall, writes...

'It is with both sadness and excitement that I have departed Hughes Hall to move nearer to family in Cornwall – and to pursue a career in teaching. I will sincerely miss Hughes Hall. It has been an enlightening experience thanks to the many warm and inspiring Hughesians I have met and worked with. They have had quite an impact on me in many ways: I owe my decision to take this next step in part to the wonderful ambassadors for Education I have encountered in my time at Hughes. I have a lot to learn ahead, but I take with me my experiences at Hughes Hall.'

We are pleased to let you know that Jack Clarkson, previously the Development Officer responsible for alumni relations and events, has been appointed as the Deputy Development Director.

Connect with Hughesians in your area

We have alumni groups all round the world, run by our dedicated alumni volunteers. These groups organise local events, provide professional networking and mentoring opportunities, and the

chance to socialise and make lifelong friendships. You can see all our established groups at www.hughes.cam.ac.uk/alumni/get-involved/

Can't find a group near you? Why not set up your own? Contact the Alumni Relations and Development Office to explore how we can connect you with alumni near you.

News request for Hughes

We would love to hear your news over the year for the members' sections on news and publications in our 2022 Easter Term edition of *Hughes*. To make sure we can feature as much as possible please keep your message to no more than **100 words**.

Send your news to development@hughes.cam.ac.uk or Alumni Relations and Development Office, Hughes Hall, Cambridge, CB1 2EW.

Deadline for news for the next Easter Term issue will be Monday 21 March 2022.

Regular gifts, of any size, are the bedrock of our fundraising.

If you would like to make a transformational gift to the college, the Alumni Relations and Development Office would be delighted to advise you on the naming opportunities available and how you can direct your support to maximise its impact. ●

Your Alumni Relations and Development team

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Hoot for Hughes!

Hughes Hall Rowing is launching the Hoot for Hughes! fundraising campaign to raise funds for a boathouse, equipment and the resources needed for our crews to go head-of-river and beyond. We have prepared a smashing list of thank you gifts in return for your donation. Check out www.hughes.cam.ac.uk/hoot-for-hughes/



FUTURE EVENTS

The 2022 Richard Berg Rust Lecture – Sacriston: biography of an English village

24 January

Set up in memory of Richard Berg Rust, our former Development Director, this annual lecture, reflects his passionate love for his native North of England. The image of the English village anciently rooted in its landscape is a powerful trope in English culture, literature and politics. But how should we understand County Durham pit villages, most of which date only from the middle of the 19th century? This lecture traces the making of one such village, Sacriston, reflecting on the implications for contemporary debates about 'left-behind' places.

MA Congregation and Dinner

2 April

BA graduates generally become eligible for the MA once ten terms have elapsed since their BA graduation. Hughes Hall welcomes MA graduands to collect their MA at the April ceremony and arranges a celebratory dinner on the Friday evening before graduation.

Summer Garden Party and President's Farewell

25 June

All alumni are invited to join us with their friends and family for our annual summer gathering in the college gardens. We are very pleased to be able to host this at Hughes Hall once again, and we

look forward to welcoming many of you back to Cambridge. This year's party will be an extra special occasion as we say farewell to Anthony Freeling, Hughes Hall President.

Formal Hall

Missing college life? Formal halls are now in full swing and alumni are invited to join at selected evenings during term time. Alumni can invite up to three guests to come and enjoy our famously tasty food and experience a classic Cambridge Formal Dinner. If you are interested, please contact development@hughes.cam.ac.uk to find out more.

Online Events

Although many of our in-person events are returning this year, we are still keen to host a series of online events throughout 2022 for alumni who enjoy them. If you would like us to continue to offer online events please get in touch and let us know how we can make our online events work for you.

If you have a suggestion for any event that you would like to see us organise do get in touch with the Alumni Relations and Development Office.

For more information on these and other forthcoming events, visit www.hughes.cam.ac.uk/alumni-events



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