

St Hugh's College Oxford Keeping alumni in touch with the latest news and events at St Hugh's College



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Credits

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Editorial

In the months in which this issue of the *Magazine* has come together, a new cohort have arrived, settled in and finished their first term.

These new students are, of course, just beginning what we hope will be a lifelong affiliation with St Hugh's. University life seems to flash by, and they will, before long, join our alumni community.

You can read in these pages, and in the forthcoming *Chronicle*, of the many successes and achievements from across the College in the past academic year. As always



the Magazine strives to give a flavour of the whole breadth of our academic research and life at the College. We have articles on subjects as varied as the naturalist and artist Maria Sibylla Merian, our celebration of 100 years of women's suffrage, the place of the donkey in human history, and we've challenged our first year DPhil students to summarise their research in just 50 words.

I hope you enjoy this year's issue of the Magazine.

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Students matriculating in October 2018.
Kinga Lubowiecka, Bright Lens

Message from the Principal



This year has been a very special and busy year in the College as we commemorated the anniversary of the Representation of the People Act 1918, the statute permitting some women over 30 the right to vote for the first time. The women of St Hugh's College played a crucial role in the suffrage movement and we have much to thank them for. The academic year at St Hugh's has therefore featured a number of wonderful events to celebrate the courage and tenacity of our alumnae, fellows and donors who fought for what we now sometimes take for granted.

Professor Senia Pašeta, in her capacity as Director of Women in the Humanities and Fellow in History at St Hugh's, led the University's celebrations with an outstanding exhibition, 'Sappho to Suffrage: Women who dared' in the Weston Library. A Panel Discussion evening and dinner was also held at St Hugh's, bringing together the Heads of the five former Women's Colleges and some of their remarkable alumnae to discuss 'One hundred years of women's suffrage: where to next?' The excellent Panel members included Baroness Shirley Williams

(Somerville, 1948) and Dame Helen Ghosh DCB (Modern History, 1973). The Mordan Hall, named after our great benefactor and suffragist Clara Mordan, looked magnificent, decked out in green, white and purple.

Gwyneth Bebb was also one such remarkable Oxford alumna who came up to St Hugh's to study Law in 1908. Like so many others who have studied here since 1886, she was a radical for her time. In 1908 Gwyneth and her friends fought the Law Society in the courts for the right of women to be admitted as solicitors and for a declaration that she, a woman, was a 'person' within the meaning of the Solicitors Act 1843. The Judge decided she was not. The Appeal Court upheld his decision in 1913 and it was not until the Sex Disqualification (Removal) Act 1919 that women were finally allowed to be lawyers. Tragically, her early death prevented her from being the first woman to qualify as a barrister in England.

In September our Alumni Association also convened a hugely successful discussion panel of prominent women, including The Rt Hon Nicky Morgan MP (Law, 1990), Dr Sheila Cameron CBE QC DCL (Law, 1953) and Veronica Lowe (Modern History, 1969) to celebrate Gwyneth's contribution to securing the right of women to practice as lawyers.

To mark this important anniversary in the College's history, Governing Body decided to commission a recreation of the beautiful banner carried by The Oxford Women Students' Society in their protests. My sincere thanks go to all who worked so hard to make these celebrations such a success.

I believe the women of St Hugh's who agitated for the right to equality with men in these early years of the College would be proud of the outstanding achievements of many of their successors and of those St Hugh's women and men who continue to battle to secure fundamental human rights for all across the globe. The College is fully committed to ensuring that the brightest students, whatever their gender, ethnicity, religion or wealth have the opportunity to study here and we are increasing our efforts to ensure that objective is achieved.

The Rt Hon Dame Elish Angiolini DBE QC FRSE

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Oxford and the

Representation of the People Act 1918

The College was thrilled to host a celebration of the landmark Representation of the People Act 1918.



This legislation gave (some) women the vote, albeit with limitations. To actually cast a vote a woman had to be over the age of 30, rather than 21 for men, and women had to meet a property qualification. Nevertheless, it was a crucial moment in the struggle for women's suffrage.

To commemorate the legislation, St Hugh's hosted a panel discussion with the theme 'One hundred years of women's suffrage: where to next?'

The event was organised collaboratively by Oxford's five former women's colleges; St Hugh's, St Anne's, Somerville, St Hilda's, and Lady Margaret Hall.

Shirley Williams, Baroness Williams of Crosby, speaking in College on women's suffrage. Photo: Neutrum.photo

Five speakers joined our panel, which was introduced by the Principal, and chaired by codirector of Women in the Humanities, Professor Senia Pašeta.

The speakers represented each of the five colleges, and we were delighted to welcome Baroness Shirley Williams, Dame Helen Ghosh DCB, Professor Jo Delahunty QC, Sheila Forbes CBE, and Faith Boardman to our panel.

The event was very well-attended, and it prompted a fascinating discussion, with each of the speakers reflecting on their own experiences, how things had been improved for women today, and what was left to do.





Celebrating 100 years of Women's Suffrage by Professor Senia Pašeta, Tutorial Fellow in History, Co-director of Women in the Humanities



The centenary of women's suffrage was commemorated in Oxford in 2018 just as it is around the rest of the country. And it is important that we celebrate it here as the city, the university and particularly the women's colleges played a vital role in winning the vote for women. The suffrage movement began in Oxford in the late nineteenth century and coincided with the height of the campaign for women's access to higher education and university admission in Oxford. Many of the same impulses and beliefs drove both movements and it is not surprising that the women's colleges and their supporters were heavily involved in the women's suffrage campaign. Oxford hosted meetings, organisations, delegations, debates and a number of key figures in the suffrage movement, with St Hugh's playing a vital role.

Women in the Humanities (WiH), an expanding research programme within the University, has led commemorative efforts in Oxford this year. Together with our partners in the University Museums, Libraries and Gardens, and other colleagues in the city and University, we have organised a wide range of events and initiatives to mark the centenary. Planning for this programme of events began several years ago and was rooted in the research interests of a growing number of scholars as well as in the University's commitment to encouraging and supporting gender equality. The most prominent of all our initiatives is 'Sappho to Suffrage: Women Who Dared', an exhibition in the Weston Library which is open until February, 2019. The exhibition highlights items from the Bodleian's holdings which were made, written, owned or commissioned by women. Suffragists and suffragettes are featured, but so too are women pioneers in a number of fields including science, politics, the arts and religion.

Media attention has been considerable and has focussed on a number of items, none more so than Suffragetto, a board game created to raise money for the suffrage cause in 1908. The game, in which Suffragettes try to get into the House of Commons and Albert Hall, (where suffrage meetings often took place), while police constables try to disrupt their meeting and prevent them from entering parliament, is intriguing as it reflects real tactics and public perceptions of the movement. Suffragetto has been featured by the BBC, the Financial Times and the Canadian Broadcasting Corporation among others and it's easy to see why. It's beautiful, it's fun and it's enigmatic. We're not entirely certain when it was made, how popular it was or why only one copy of it seems to have survived.

There are many other wonderful items in the exhibition, each of which encourages visitors to think about what women have done and achieved over the centuries. While we are of course exceptionally fortunate to have manuscripts by Jane Austen, Christine de Pizan and Mary Shelley, a first edition by Mary Wollstonecraft and a book made by Elizabeth I, we are equally fortunate to have records of pirates, of explorers, of criminals, of scientists and of printers. None of these items could be described as typical, or as having been made by ordinary women, but demonstrating the typicality of the women whose work has survived in the Bodleian is not what this exhibition is about. It is about

showing how some women managed, often against enormous odds, to overcome two major barriers: the limitations to women's freedom to produce and the general reluctance to collect or to preserve items made by women.

While this exhibition marks the suffrage centenary, it is also concerned with highlighting the pioneering women who predated the suffrage movement and those who came after them. To this end, and to encourage visitors to reflect on continuities and change, we commissioned two new displays for the exhibition. The first is the 'lost' Oxford suffrage banner and the second is our modern suffrage wall. The latter features women from around the UK

who represent a variety of occupations from within the arts, business, education, politics, science and sport. They were invited to become Women in the Humanities suffrage champions, and to reflect collectively on women's achievements and the continuing need to challenge barriers to gender equality. Their thoughts are arranged in the style and colours of the banners carried by suffragists one hundred years ago.

Our display of modern suffrage champions mirrors the exhibition's postcard display of the original suffragists whose campaign changed British political life profoundly one hundred years ago. I'm delighted to be able to report that St Hugh's is represented





on both our suffrage walls: by Clara Mordan and Emily Wilding Davison on the 1918 installation, and by The Rt Hon Dame Elish Angiolini DBE QC, Dame Liz Forgan DBE FRSA (Modern Languages, 1963), Rebecca Front (English Language & Literature, 1982), Dame Helen Ghosh DCB (Modern History, 1973), Dame Heather Hallett DBE PC (Law, 1968), The Rt Hon Nicky Morgan MP (Law, 1990), Sarah Outen MBE (Biological Sciences, 2004), Ursula Owen OBE (Physiological Sciences, 1956) and Gwyneth Williams (Philosophy, Politics & Economics, 1972) on the 2018 wall.

The second new display is the 'lost banner'. Oxford suffrage societies produced a number of banners which they displayed during meetings and marches. St Hugh's had its own green and white banner which students, alumnae and tutors carried in London and Oxford processions. Like all the other Oxford banners, it was lost, but we have a record, printed in the Oxford Times in 1908, of one such banner, carried by the Oxford Women's Suffrage Society. We know that the banner represented St Frideswide, the patron saint of Oxford, and that she wore green, that the background was Oxford blue and that the words were embroidered in gold. She held a sword of justice, but was surrounded by thorns of ignorance. We are also told that the design was worked on by members of the local society. Students from the women's colleges marched behind that banner, accompanied by several dons and activist local men and women. It was carried in that procession by Bertrand Russell.

It is highly unusual to have so much information about a suffrage banner which did not survive. To mark the centenary of women's suffrage, Women in the Humanities commissioned the illustrator Rachel Hill to recreate the 'lost banner', and asked her to work as closely as possible with the instructions in the original article. The recreated banner is now on display in the 'Sappho to Suffrage' exhibition, and

St Hugh's has also commissioned a reproduction to be displayed permanently in the Emily Wilding Davison Room. It will form part of a wider refurbishment of the room which is being stocked with suffrage books and artwork in honour of the centenary and of Emily Wilding Davison, one of the College's most eminent and best known alumnae.

Women in the Humanities and St Hugh's have collaborated to commission Annabel O'Docherty to recreate the banner carried by the Oxford Women Students' Society for Women's Suffrage, a society founded in 1911 by and for the women's suffrage societies of the individual women's colleges. This beautiful banner was first carried in the Coronation procession of 1911 and seems to have been published as a postcard in 1912; it is also featured in the 'Sappho to Suffrage' exhibition. We aim to display it prominently as a symbol of the College's progressive history and its ongoing commitment to equality and diversity.

The exhibition has served as a foundation for a number of other initiatives including talks, lectures, school visits and workshops, book launches, academic collaborations, a school resources pack, children's activities and much more. In October we hosted a major international conference on Suffrage in the UK and beyond and some of the many events to come include a university research workshop, a feminist quiz, further engagement with visual and sound artists, theatre, writing workshops and panel discussions in Oxford and Westminster, Reviews have been very positive with the exhibition even being named by USA Today as one of Europe's best in 2018! But more importantly, the visitors continue to pour in and to engage with the exhibition in many ways. Exhibitions don't change the world, but they can help to shape discussions, to focus minds and to remind us all that history doesn't just happen. It is made as we live it and shaped by how we interpret it.



The Year in review

by the St Hugh's College Development Team: Sarah Carthew, Catharine Rainsberry, Meghan Mitchell, Sam Knipe and Hannah Manito

We are enormously grateful to everyone who has chosen to support our alumni relations and fundraising activities in 2017-18. In the pages that follow, we celebrate some of the many personal and professional achievements of individuals within our alumni community, and share with you some of the highlights of our events programme in the last academic year. Details of our future events are available at the back of this Magazine and on the College website.

Alumni Achievements: a few highlights

Gill Aitken CB (Philosophy & Theology, 1979) was appointed Registrar of the University of Oxford and took up the position in September 2018. She was previously General Counsel and Director General at HM Revenue and Customs, and before that held leadership positions in the Department for Work and Pensions and the Department for Environment, Food and Rural Affairs. Gill was admitted as a Fellow of St Hugh's on 10 January 2019.

Brittany Ashworth (English Language & Literature, 2008) won 'Best Actress' for Hostile (2018) at the New York City Horror Film Festival. In recent months, Brittany has also featured in *The Crucifixion* (2017) and Accident Man (2018).

Olivia Bloomfield, Baroness Bloomfield of Hinton Waldrist (Philosophy, Politics & Economics, 1979) was appointed to the House of Lords in September 2016, made her maiden speech on the Wales Bill on her fourth day and became a Party Whip that October.

Professor Emma Dench (Classics, 1989) was appointed the new Dean of the Graduate School of Arts and Sciences at Harvard University in 2018.

Catherine Ennis (Music, 1973), former Organ Scholar at St Hugh's, was awarded the Royal College of Organists' Medal in January 2018 in recognition of distinguished achievement in organ playing and distinguished service to the RCO. Catherine served previously as President of the Royal College of Organists.

Rebecca Front (English Language & Literature, 1982), award-winning actress and author, released her latest book, Impossible Things Before Breakfast: Adventures in the Ordinary, in June 2018. The book is a collection of true stories about surprising turns of events, bizarre misunderstandings and improbable life lessons.

Dr Jane Glover, CBE FRCM (Music, 1968), celebrated conductor and biographer, published Handel in London: The Making of a Genius, in September 2018. Handel in London is an account of the composer's journey from his arrival in London from Germany at the age of 27 to his life at the heart of London's musical scene for the next four decades.

Kate Glover, FRSA (Modern History, 1965) has been touring the country with Dear Chocolate Soldier, a docudrama which she has edited and arranged. The play is based on the letters of Leek-born Bombardier Edwin Hassall, who served in the trenches of the Somme throughout the First World War. We are delighted to announce that members of the St Hugh's community will have the opportunity to see the play in College on 6 April 2019 as part of our late centenary celebrations for the Armistice Tree in the College grounds.

Hector Hamilton's (Mathematics & Philosophy, 2009) print 'Brutally Untitled' was displayed as part of the Royal Academy's 250th Summer Exhibition in 2018.

Rachel Maclean (Psychology, Philosophy & Physiology, 1984), MP for Redditch, was elected as Chair of the All-Party Parliamentary Group for Women in Parliament in February 2018 and was promoted to Parliamentary Private Secretary within the Home Office the following month.

Praful Nargund (Law, 2010), CEO of CREATE Fertility, was included in the Lloyds TSB Development Capital list of the UK's 50 most ambitious business leaders.

Professor Alison Noble, OBE FREng FRS (Engineering Science, 1983) was appointed an Honorary Fellow of St Hugh's College. Professor Noble is the Technikos Professor of Biomedical Engineering in the University's Department of Engineering Science, Associate Head of the MPLS Division

Sarah Outen MBE (Biological Sciences, 2004). Photo: Anita Corbin



(Industry and Innovation) and a Fellow of St Hilda's College. Professor Noble participated in the University's Academic Programme at the Alumni Weekend in San Francisco in April 2018, delivering a fascinating session on 'Changing Perceptions of Medical Ultrasound'.

Sarah Outen, MBE (Biological Sciences, 2004) was the subject of a specially commissioned portrait featured in the Royal Collection of Art's exhibition 'First Women UK', which documented 100 pioneering women of the 21st century. Sarah is a British athlete, adventurer, bestselling author and motivational speaker.

Jean-Andre Prager (History, 2012) was appointed Special Adviser to the Prime Minister on Welfare and Disability in the Downing Street Policy Unit.

June Tabor (Modern Languages, 1966), award-winning folk singer, released the album Nightfall with her trio, Quercus, in early 2017.

Joanna Trollope, OBE (English Language & Literature, 1962) published An Unsuitable Match, her twenty-first novel, in February 2018.

UK Events 2017-18

This year, we have celebrated the centenary of the passing of the Representation of the People Act in 1918 with a series of special events in College and further afield, which continued into Michaelmas Term 2018. The series opened in February with 'One Hundred Years of Women's Suffrage: Where to Next?', a panel discussion which featured accomplished alumnae from Oxford's former women's colleges, including St Hugh's alumna Dame Helen Ghosh DCB (Modern History, 1972), now Master of Balliol College. This was followed in June by a special event to celebrate the life and work of composer, writer and leading suffragette, Dame Ethel Smyth, which featured a performance of her String Quartet in E Minor by the University of Oxford's Quartet in Residence, the Villiers Quartet, and a guest lecture given by Dr Sophie Fuller of Trinity Laban Conservatoire of Music and Dance. Later in June we held a launch event for Dr Jeyaraney Kathirithamby's award-winning new book on entomologist and artist Maria Sibylla Merian, which included a viewing of the 'From Sappho to Suffrage' exhibition at the Weston Library in Oxford, with an introduction from the exhibition's



Guest speaker Dr Sophie Fuller speaks to guests at 'Dame Ethel Smyth – A Celebration', 3 June 2018. Photo: Kinga Lubowiecka of Bright Lens

curator, Professor Senia Pašeta, Tutorial Fellow in History at St Hugh's and co-director of Women in the Humanities.

This year we also launched the St Hugh's College Business Breakfast Series, designed to facilitate networking and the exchange of business ideas between alumni. At the inaugural event in





The Villiers Quartet perform at the Dame Ethel Smyth celabrations on 3 June 2018. Photo: Kinga Lubowiecka February, Addy Loudiadis (Chemistry, 1982) was interviewed by the Senior Tutor, Professor Roy Westbrook, about her career in investment banking and insurance, and her time at St Hugh's. The Series continued with a briefing on Brexit delivered by Owen Tudor, Head of European Union and International Relations at the Trades Union Congress (TUC), in April.

Conference: 'The Art of Collecting', I November 2017.

Other highlights of our UK programme for 2017-18 included the immensely popular conference, 'The Art of Collecting', which was held in the Dickson



Poon University of Oxford China Centre Building in November 2017. Chaired by St Hugh's Fellow and Curator of Chinese Art at the Ashmolean Museum, Associate Professor Shelagh Vainker, the conference included a presentation by Distinguished Friends of St Hugh's, Flavia Gale (Modern Languages, 1966) and Barden Gale, on their private collection of Chinese robes, as well as talks on the British Museum's jade collection, Himalayan jewellery, and the great Sir Percival David Collection of Chinese ceramics. The College is most grateful to Distinguished Friend of St Hugh's, Mr Edwin Mok, and to Bonhams Auctioneers, for their generous sponsorship of this event.

We welcomed The Honourable Mr Justice Robert Tang Kwok-ching, SBS, Permanent Judge of the Hong Kong Court of Final Appeal, as the guest speaker for the 2018 Dr Mok Hing Yiu Lecture, which was held in College in February. The Lecture was entitled 'One Country Two Systems: The Basic Law, Common Law and the Rule of Law' and was warmly received by the alumni, academics, friends and students who attended. The Dr Mok Hing Yiu Memorial Lectureship is generously sponsored by the Mok Hing Yiu Charitable Foundation, which was represented on the evening by Mr Edwin Mok.



Right & above: Justice Tang delivers the Dr Mok Hing Yiu Lecture, 22 February 2018. Photo: John Cairns

Far right: Dr Mimi
Zou, Fangda Partners
Career Development
Fellow in Chinese
Commercial Law at
St Hugh's College,
asks a question at
the Dr Mok Hing Yiu
Lecture, 22 February
2018.
Photo: John Cairns





We were delighted to see alumni, academics and students, and their guests, at our London events in Michaelmas Term 2017. The events included a visit to the newly renovated Garden Museum in Lambeth for a private tour with Museum Director, Christopher Woodward; a trip to the Palestine Exploration Fund in Marylebone, which holds a wealth of information on former Principal of St Hugh's, Dame Kathleen Kenyon, one of the most influential archaeologists of modern times; and finally a visit to the historic Regent Street Cinema for a private viewing of *It's a Wonderful Life* during the festive season.

In June we were joined by over 80 St Hugh's alumni who matriculated between 1988 and 1991 for a very special reunion event which included a Pimm's reception and a black-tie dinner in Mordan Hall with speaker, St Hugh's Fellow and Tutor in Modern History, Dr Jon Parkin (Modern History, 1988).

The year rounded off with another fabulous Alumni Weekend in Oxford, 14-16 September 2018, which included the Gaudy Dinner on the Saturday evening and our Jubilee Lunch on Sunday afternoon. This year's celebrations opened with a private tour of the Museum of the History of Science on Broad Street, led by the Museum's Director, Dr Silke Ackermann, on the Friday evening. On Saturday afternoon, we were delighted to support the St Hugh's Alumni Association as they hosted 'A Woman is Not a Person', a symposium to celebrate the life of



The Principal with alumni at the Jubilee Lunch, 16 September 2018.

St Hugh's alumna and law pioneer Gwyneth Bebb (Law, 1908), one of the first women lawyers, and the impact of the Sex Disqualification (Removal) Act 1919, which enabled women to enter the profession for the first time. The event took place as part of the University-wide Alumni Weekend programme and featured a panel of eminent speakers which included the Rt Hon Dame Elish Angiolini DBE QC, Principal of St Hugh's; Professor Senia Pašeta, Tutorial Fellow in History at St Hugh's; and St Hugh's alumnae the Rt Hon Nicky Morgan MP (Law, 1990), Dr Sheila Cameron CBE QC DCL (Law, 1953) and Veronica Lowe (Modern History, 1969). In the evening, guests at the Gaudy Dinner were treated to a special viewing of 'I, The Desert', a fabulous exhibition of oil paintings by alumna Mary Jose (Geography, 1957), on display in the Hamlin Gallery at St Hugh's throughout Michaelmas Term 2018.







Gaudy Dinner, 15 September 2018. Photo: David Fisher



as well as from leading collections and archives brought together for the first time.

Michael Alphonsus Shen Fuzong by Sir Godfrey Kneller, 1687. Oil on canvas, 212x147cm.



Garden Party

On 23 June 2018 we hosted a record number of alumni, academics, staff, students and friends of the College, nearly 400 in all, for our annual Garden Party, which featured entertainment for all ages including a jazz band, circus skills workshops, face painting, a bouncy castle, close-up magic, and tours with the College's Gardens team. The Garden Party also included the third St Hugh's Dog Show, and the inaugural 'Picture Purrfect' Cat Photo Competition. We are pleased to share these photos from the day taken by David Fisher.

















The winner of 'Best in Show' at the third annual St Hugh's Dog Show — Luna with her owner, Dr Annie Hongping Nie, 23 June 2018. Photo: David Fisher



St Hugh's celebrates new Elizabeth Wordsworth Fellows



















International Events 2017-18

This year we have been delighted to connect with alumni and friends from across the world, both at our events in the UK, and on trips to Hong Kong, Singapore, Rome and San Francisco.

Highlights of our events programme in Hong Kong included an exclusive drinks reception with the Principal and the Director of Development at the Mandarin Oriental hotel, for current students, alumni and friends of the College in October, and celebratory events in honour of Elizabeth Wordsworth Fellows Mrs Joanna Chan, Mr Zhujun Chen and Mrs Joey Chen in May.

It was wonderful to see St Hugh's represented so strongly at the University-wide Alumni Weekends in Rome in March and in San Francisco in April.

In addition to the main programme, St Hugh's alumni at the Rome Alumni Weekend enjoyed a private tour of Palazzo Colonna and a drinks reception hosted by the Principal in the fascinating surroundings of Princess Isabelle's Apartment. This was followed by an informal dinner at Trattoria al Moro, a short distance from the Trevi Fountain.

Our programme in San Francisco included a College Dinner in the Wine Salon at Scala's Bistro, just off Union Square, at which alumni and friends



The inaugural meeting of the St Hugh's College North American Alumni Association in San Francisco, 8 April 2018.

shared their favourite memories of St Hugh's. The weekend continued with the inaugural meeting of the North American Alumni Association led by the Association's President, Neill Coleman (Modern History, 1993), and our family event – a launch reception for Dr Jeyaraney Kathirithamby's new book and a private tour of the beautiful San Francisco Botanical Garden.

In September we caught up with our alumni based in Singapore at a special dinner in La Brasserie at the Fullerton Bay Hotel. The dinner was hosted by Professor Michael McMahon, Professor of Economics at the University of Oxford and Tutorial Fellow at St Hugh's.





The St David's Day Lecture

First Minister Carwyn Jones

St Hugh's was delighted to welcome the First Minister of Wales, the Rt. Hon Carwyn Jones AM, to the College in March 2018 for our St David's Day Lecture.

As the date fell on International Women's Day, the First Minister spoke on the subject "The women of Wales – past, present and future."

His speech made headlines, with ITV and Wales Online picking up aspects of his speech dealing with a range of topics, from the 'ugly' treatment of women in public life, to confronting sexual harassment, and social media.

He stated his aspiration to make Wales the safest place for women in Europe, and spoke of his anger at misogyny, and his hope that the Welsh Government would lead the way with its commitment to gender equality.

Following the lecture, the First Minister and guests joined the Principal for dinner.



College hosts the 2018 Bookfeast Festival

In May more than 1700 primary school children came to visit St Hugh's for the wonderful Bookfeast Festival. The pupils came from schools all over Oxfordshire, giving most of them their first experience of being in a university environment.

The festival is a celebration of books and reading that College has been delighted to host for the last three years. We're thrilled to give children from different backgrounds a chance to experience this special time in an Oxford college.

The festival promotes a love of reading and gives children an opportunity to meet authors and

illustrators. During this year's festival St Hugh's hosted around 20 events, giving the schoolchildren a range of really unique opportunities and experiences.

The BBC reported on the festival, charmingly describing College as "like a floral Tardis" hidden away between Banbury and Woodstock Road, and singing the praises of our grounds and gardens in an interview with Bookfeast organiser Celia MacLachlan.

You can find out more about the Bookfeast charity and their work on their website: http://new.bookfeast.net/







**Because reading for pleasure is a magic potion — it enhances emotional understanding, allows us to learn about other people and how to relate to them and to discover the possibilities of the world outside our immediate environment. For older people it can sustain mental and physical health; our reading groups stimulate conversation, boost confidence, and address social isolation.





'Universify'

- giving Year 10s a taste of College life

St Hugh's welcomed a cohort of Year 10 students from non-selective state schools to experience a week of undergraduate life at the College, in August 2018.

The visit was part of a year-long programme for Year 10s run by Universify Education, who work towards widening access to highly selective universities like Oxford. The programme gives pupils a chance to spend time at a world-class university, and to understand what it takes to secure a place at Oxford.

The College is very pleased to be able to support the programme.

Universify ran their first course in 2016 and is now working with St Hugh's for the first time this year, for the 2018-19 academic year. The programme starts with the week-long residential in August held at St Hugh's and during this week, students take part in university-style seminars, design their own university, and have the chance to explore the city of Oxford, discovering what it feels like to be an undergraduate student.



The residential students are paired with a Universify coach, who is a current or recent university undergraduate. The participants work with their coaches to set goals, work out how they can achieve them, and following the residential they have regular Skype meetings to check their progress.

Students and volunteers will return to St Hugh's in Easter 2019, for a three-day GCSE revision weekend to help the students prepare for their forthcoming exams and to find out what programmes are available to them once they have completed the Universify course.

Very impressive final presentations from the Universify summer school students about what their ideal universities would be like.



A warm welcome to Oxford for five visiting Chemistry students

Over summer 2018 the College ran the University of Oxford's first ever partnership with a Historically Black College or University (HBCU) from the United States.



Left to right: Demetria Dorsey, Ciondi Bess, Dr Rahina Mahtab, Bakari Sellers, Alston Jenkins, Nurunnahar Abdussalam, Michael Isley.

We were delighted to welcome five undergraduate Chemistry students from South Carolina State University to St Hugh's: Alston Jenkins, Ciondi Bess, Demetria Dorsey, Michael Isley and Nurunnahar Abdussalam. South Carolina State University was founded in 1896, just a decade after St Hugh's.

The five students spent seven weeks in College conducting research with Professor Stuart Conway, the E. P. Abraham Cephalosporin Fellow in Organic Chemistry. His work focuses on the development of molecular tools to enable the study of biological systems.

Aside from their studies, the students were given an authentic Oxford experience, living in College accommodation and they were given the opportunity to explore the UK. The Principal also hosted them in the Principal's Lodgings for dinner and a BBQ.

Four weeks in

South Africa's healthcare system

by Joseph Williams (Medicine, 2013)

I was attached to the paediatrics department of Kimberley Hospital, located on the Northern Cape of South Africa, for four weeks in November and December 2017. The purpose of this attachment was to gain experience in interacting with children and their parents, examining children, and performing minor procedures such as phlebotomy. I, and another medical student, stayed with Dr Pieter Jooste, the head of the paediatrics department, and his wife Judy, for the duration of the attachment.

The first week of the attachment was spent on newborn baby checks and assessment of HIV risk. Newborn HIV is an enormous problem in the Northern Cape, with approximately 25-35% of babies in Kimberley Hospital born to HIV-positive mothers. While maternal treatment regimes have lowered the risk of transmission to the foetus, childhood HIV forms a significant burden of disease in the region. I learned to perform examinations on newborn babies, to assess their health and to screen for congenital abnormalities, such as heart murmurs and development dysplasia of the hip. I also learned to take arterial blood samples from newborns, in order to test for HIV in at-risk children, and to place cannulas for children who needed admitting to the neonatal intensive care unit. These are skills that medical students in the UK rarely get to perform, so this was an invaluable opportunity to learn this skill. I also spent time on the neonatal ICU, learning about conditions affecting premature infants, including respiratory distress syndrome and meconium aspiration. Finally, I spent a morning watching emergency Caesarean sections; the operating conditions were a stark contrast with those found in the NHS, with much equipment being re-used between patients.

The second and third weeks were spent on the general paediatrics ward. The ward was divided into four parts: respiratory, gastrointestinal, social, and acute. The respiratory section was mainly comprised of TB patients in isolation bays, requiring masks and gloves to speak with and examine. Again, TB is a large public health issue in the area, due to high rates of HIV, overcrowded housing, and chronic

malnutrition. This region also housed many patients with TB meningitis, a condition where TB infects the membranes surrounding the brain and spinal cord, which can result in death, paralysis, blindness, and speech defects. With appropriate treatment, many patients can make a good recovery; however, many in the ward had reached medical care too late to avoid the disabling effects of the infection. This condition is incredibly rare in the UK, and the patients made a great impression on me; I chose to centre my end-of-attachment case study on one patient with TB meningitis, who had originally been left paralysed down one side and unable to speak, but was making good progress in rehabilitation in the ward.

Many of the other ward patients were suffering from the effects of chronic malnutrition, neglect, HIV, and diarrhoea; again, this is fortunately rare in the UK, and so it was an interesting opportunity to see the assessment and treatment of these pathologies associated with poverty. I also attended a community outreach clinic at a satellite hospital in the townships, seeing mostly older children for monitoring of their HIV treatment.

The final week was spent in a combination of paediatric ICU and the ward. Here, I was involved with the treatment of the sickest children in the hospital, and witnessed the resuscitation of a child who suffered a cardiac arrest secondary to hypoxia, as a result of their anti-seizure treatment. I have a strong interest in intensive care medicine, so this was an excellent opportunity for me to gain further experience in this area, although the range of diseases seen were rather different from those seen in the UK, with a disturbingly high number of poisoned patients, and a number with active police investigations into the circumstances of their injuries.

I am very grateful to St Hugh's for helping to fund this placement; the contrast between care in the South African public healthcare system and our own was stark, with many of the medications and pieces of equipment we take for granted being completely absent due to lack of funding. The majority of healthcare investment in South Africa is in the private sector, with most junior doctors aspiring to work privately once they have put in their required three years in the public system. Seeing the effects of healthcare underfunding and significant poverty makes you very grateful for what we have in the UK!

Winter at St Hugh's in 2017-18

Photographs taken by St Hugh's students









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St Hugh's **Sport 2017-18**

An overview of our sporting news and triumphs by team captains

Town and Gown

There was a terrific turnout for the St Hugh's team in the Town and Gown this year. We had around 90 runners taking part in the 10k race, raising money for Muscular Dystrophy UK.

Our team included current students, alumni, Fellows, staff, and the family and friends of College members, bringing together the whole College community.

We were very narrowly beaten in the competition to put together the team with the most members by Oriel, and we hope to win that prize in 2019! All are welcome to take part and registration is now open at www.townandgown10k.com. Make sure you select 'Join a Team' and join 'St Hugh's College' when you register.



Football



St Hugh's College football represents the pinnacle of footballing talent. There are two teams; the 1st XI and the 2nd XI, who both play weekly.

After reaching the 2nd XI cuppers final this season, a true rarity at St Hugh's, we have a chance to push on and establish St Hugh's on the grand stage of inter-college football.

The social side of SHFC also provides members of the team with great social events with people they often wouldn't socialise with. We have termly dinners and club nights, with many a drink on the club. They contribute to a welcoming and friendly environment that is at the heart of St Hugh's FC.

For me, football has been one of the things I have enjoyed most while at Oxford, and some of my best memories have been with the team. Sport and competition add balance to a life that can often seem dominated by work. It gives one something



to look forward to and a break during the week to let off some steam and see people you wouldn't otherwise spend time with.

Come On You Yellows!

Nick Kelly (Archaeology & Anthropology, 2016)

Men's Rowing

St Hugh's have had a fantastic year of rowing. First up was the novice campaign, lead by captains Sheng Ho and Alex Wilson for the new recruits. The novices had one term to learn how to row as a group and to get to a standard good enough to enter Christ Church Regatta, and get good they did. In Week 6 the two novice boats entered the Nepthys Regatta with no aim more than just to get a feel for racing, but 5 races into the tournament the Men's A boat ended up winning in the final against Wolfson spectacularly. MB put up a great fight in their race against an A boat. On to the ChCh Regatta, and four days of racing later, Hugh's ended up in the final, narrowly losing to



Wolfson MA who were hungry for vengeance. A huge team success in Michaelmas paved the way for Hugh's in the rest of the year.

In Hilary Term three senior boats were entered into the Torpids Campaign. Tough erg training and even tougher water training made the Hugh's First boat (MI) victorious in both its races (snow cancelled racing on the other two days!), achieving two beautiful 'bumps'. Due to bad weather the lower boats were only allowed to race on one of the days, ending with a catastrophe for the second boat



that crashed into the bank and was subsequently overtaken by our own third boat.

Trinity term brought sunshine and warmth, and a campaign lead by captains Matt Clark and Howard Hall saw two Hugh's boats enter the Summer 8s races with training as early as 5:30am in the morning. All crews worked hard and performed fantastically. M2 was unfortunate in its position in the table and came up against some pretty strong crews (some would argue they were first boats in disguise) and conceded all four days. MI however performed fantastically, bumping all four days, achieving blades. As a result, after a year of hard work and sleepless mornings St Hugh's MI is the highest in ranking as it's ever been, winning every one of its races this year.

Whose boat? Hugh's boat!

Howard Hall (Physics, 2017) and Matthew Clark (Classics & Oriental Studies, 2017)

Women's Rowing

The women's side of the boat club started the year with a successful novice campaign, with two boats competing in Christ Church. The majority of the novices continued rowing and mixed with the seniors in our boats training for Torpids in Hilary. Despite the campaign being cut short by the snow, both WI and W2 managed to bump!

In Summer VIIIs, WI achieved headship of division three, whilst W2 won blades, bumping into fixed divisions for the first time in twenty years! W3 became famous across the Isis





for their 'Armageddon' coxing call – intimidating the opposition into submission. We are looking forward to a strong contingent of rowers returning next year!

Lana Firth (Classics & English, 2017)

Mixed Lacrosse

The past year would probably be best described as a transition for St Hugh's lax team. Whether the transition will be positive remains to be seen. An early and somewhat controversial (dodgy refereeing, I swear) cuppers exit for a team dominated by first-time players preceded a rather long break. At least the first ever item of Hugh's lax stash was debuted.

The transitioning continued though in Hilary with the announcement of new captains, full of enthusiasm, although severely lacking in talent. Suddenly there was a practice session (that was actually well attended)

and then a friendly tournament. A team made-up entirely of freshers, because apparently no-one else wanted to play, walked down to Uni Parks with

rather low hopes. Two matches and two wins later however, there was a new, unfamiliar feeling around the team: Confidence.

Sadly it wasn't to last long, as despite an appearance in the midst of finals from now ex-captain Ryan Power, one day cuppers was not a success. It turns out colleges do not send their best teams to

last-minute friendly tournaments; they save them for one day cuppers. A slightly embarrassing loss (if I'm honest I can't remember how many the opposition scored) meant an early return to the library. There were promising signs though. With a little

more practice, a little less drinking and some fresher talent, who knows what could happen.

Asher Winter (Chemistry, 2017)

Netball

The St Hugh's netball club has had a great year with a brilliant freshers' contingent. We had a great time at women's cuppers where we entered one team and mixed cuppers where we entered two. The team really bonded with the socials we had throughout year, finishing with a boys versus girls match near the end of Trinity term.



The highlight of this season has been the A team finishing top of division 3 and moving up to division 2! We're looking forward to fighting hard to stand our ground in the tougher division next term. We're sad to say goodbye to Rosie and Alice who are graduating but excited to meet the new netballers coming in.

Hattie Binny (Engineering Science, 2016)



The best three years of our lives

by Carol Haines (English Language & Literature, 1953)

My own entry to St Hugh's was from day high school; it was totally unexpected and fortuitous.

The most remarkable feature of College life was its diversity. Someone's father was a Cambridge don, another's a gardener, and another's a schoolmaster. One friend proceeded from a rather deprived background.

Our Principal at that time was Dr Evelyn Procter. She had been, I learned later, hugely responsible for the recovery of the College gardens, following the College's period of war service as a head hospital. In my day they were a sheer delight, and a fitting context for the quiet elegance of the Main Building. We owed much to the dedication of our head gardener at that time, Mr Norris, whose greatest pride was the south terrace.

In those far-off days our doors were blissfully unlocked. You could drop by to pick up a book or pinch the sugar, and merely leave a note. As children of the war years our expectations in both food and heating were moderate. I recall only one occasion when food became substantially inadequate, and the SCR sacked the Bursar in consequence. Lighting your fire was a social occasion, and you invited your friends in for coffee.

Beyond College lay the city with its architecture, its societies and organisations, to enrich our evenings and enhance one's friendships. Early on, I found my way to Corpus Christi, to hear someone called

Alfred Dellis sing madrigals. New experiences; this was what Oxford was all about. For relaxation I sang with the Bach Chorus and danced with the Country Dance Society.

One year May Day fell on a Sunday. Someone suggested we walked to the Romanesque Church of Iffley to be in time for the 8am service. So we did that, and were entertained to coffee afterwards by a gratified vicar.

It was a remarkable time to be reading English at Oxford. Nevill Coghill was at Lincoln, we had David Cecil lecturing us on the novel at Christ Church, and Cecil Day-Lewis was our Professor of Poetry. Our College tutors were diligent in their supervisions so that when 'schools' dawned, unlike some of the men, we had no real worries. There were cooked 'schools breakfasts', I remember, for those in academic dress!

English sat examinations with Jurisprudence. Gathered in the Lower Hall of the Examination Schools, the tension was terrific. Then the gates opened, there was a mighty cheer and we hastened to our appointed desks. All too soon, Oxford would be over, and we were 'going down'.

But the Oxford experience, and our friendships made there, have been sustained throughout a lifetime.

For myself, as for many others, they were the best three years of our lives.





Maria Sibylla Merian

Artist, Scientist, Adventurer

by Dr Jeyaraney Kathirithamby, Emeritus Fellow

Maria Sibylla Merian (1647-1717), born in Frankfurt am Main, was one of the first naturalists to make careful observations of plants, insects, spiders and amphibians. She was also one of the first female scientific explorers. Her illustrations were delicate and brilliantly coloured, and were extraordinary for the 17th century, considering



that she worked with only a paint brush and a magnifying glass. Furthermore, her notes were remarkable for their scientific detail and accuracy. She was brought up among painters and engravers, and although a woman she was allowed to become an apprentice in her stepfather, Jacob Marrel's workshop, since he recognised her talent and potential. What was unusual in Maria Sibylla was that she was able to pursue her interests, and seems to have overcome the limitations for a woman of her period. From an early age she became fascinated by the insects that appeared in some of Jacob Marrel's still-life paintings. Her curiosity led her to collect some of these, beginning with the silk worm, and rear them. She studied numerous other European insects, the plants they fed on, and, most interesting of all, their parasitoids. Her notes about parasitoids (intended for a study book begun in 1660, but only postumously published) pre-dated Swammerdam's

Portrait of Maria Sibylla Merian by Jacob Marrel, 1679. Kunstmuseum Basel.



Cardinal's Guard with Idomeneus Giant Owl Butterfly and Paper Wasp from The Insects of Surinam by Maria Sibllya Merian. Getty Research Institute



Spring Flowers in a Chinese Vase from The New Book of Flowers by Maria Sibylla Merian. © The Trustees of the Natural History Museum, London 1669 publication. She gave embroidery lessons and taught still-life water colour painting. To help in this education she published her first book, *Neues Blumenbuch (New Book of Flowers)*, in 1675. Two more volumes followed in 1678 and 1683.

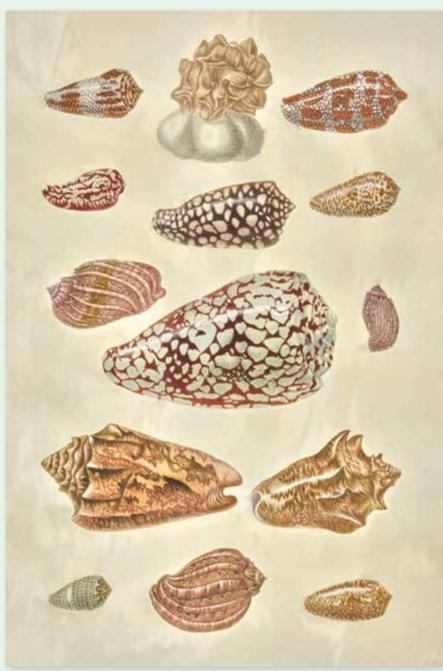
Her first scientific book, based on her Study Book, Der Raupen Wunderbare Verwandelung (referred to as the Caterpillar Book), was published in 1679. At that time people did not understand insect metamorphosis, and no book existed that explained it correctly. Aristotle's theory of 'spontaneous generation', that living things could spring from non-living matter and spontaneously grow out of mud and garbage held the field. The observations on metamorphosis that Maria Sibylla made in her Study Book in 1660 were nine years ahead of the first accurate account of it published by Jan



Swammerdam in 1669. Even today, Swammerdam is often given credit for 'discovering' metamorphosis. But unfortunately, Maria's findings were published only in 1679. The 2nd *Caterpillar Book* appeared in 1683. Her husband helped publish both her *New Book of Flowers* and her *Caterpillar Book*. The latter represented a milestone for Maria Sibylla, as it was intended not for other young women but for the general public.



Right: Shoreline Purslane with Common Suriname Toad from The Insects of Surinam by Maria Sibllya Merian. Getty Research Institute



Cone Shells, Harp Shells, and Butterfly Shells by Maria Sibylla Merian, 1705.

From Georg Eberhard Frump, D'Amboinsche reiteitkamer (Amsterdam: Francois Halma 1705) In 1685 she moved to a Calvinist Labadist Colony in Waltha Castle, Holland. This was a bold move, as she went without her husband, taking only her mother and her two daughters. Here Maria Sibylla was not allowed to continue her art work. She therefore devoted her time to collecting, since she still could carry out her scientific work. She also studied Latin, learned about medicinal plants, and prepared the 3rd volume of her Caterpillar Book. Specimens of butterflies from Surinam were in the

Castle, and these she might have examined as well. While in the castle, she collected and dissected frogs and observed their metamorphosis. Maria Sibylla was one of the first to record this transformation, at a time when scientists were still debating how frogs managed to live both on land and in water. Maria Sibylla's studies in 1686 took place long before the observations by Antony van Leeuwenhoek, which were published in 1699. While in the Labadist Castle, Maria Sibylla arranged the loose pages of vellum that preserved her detailed paintings and the accompanying notes, which she had begun at the age of 13, into a large journal. The water colours were painted from life and documented precise colours that would have been lost in preserved specimens. They were done on small irregular pieces of vellum which were attached to blue-grey frames of paper. The text was written in German by hand by Maria Sibylla. She continued to add to this journal for three decades. The 3 volumes of the Caterpillar Book and the Insects of Surinam were all copied from this journal.

In 1691 she moved with her two daughters to Amsterdam, an international trade centre and the 4th largest city in Europe. With its East and West India Companies curious objects were brought back by traders from the East and West Indies. Maria was, however, frustrated that the preserved exotic insects she encountered in Amsterdam were not only dead and colourless, but had no data on their life history. She wanted to see live material and this prompted her to plan and execute the extraordinary, daring journey to the Dutch colony of Surinam. The trip was to be expensive, but she had enterpreneurial

skills and Maria Sibylla placed a newspaper advertisement offering 255 of her paintings for sale. She was the first ever female explorer/collector to go on such a field-trip, and her younger daughter, Dorothea, accompanied her.

The trip was indeed unusual, as mother and daughter were not accompanied by a male and it was not familial obligations, but pursuit of their artistic work and research in natural history that



Plan de grenadier – Pomegranate Tree and Painted Lady Butterfly by Maria Sibulla Merian, about 1665.

Biblioteque nationale de France had inspired it. She was already familiar with some of the specimens she encountered, having seen them in the Labadist Colony, but here she saw them alive, in their natural habitat. She went out to collect from the jungle, reared the specimens, and made observations of all the animals she encountered. She realised that local slaves and natives knew about the flora and fauna and enlisted their help. She painted the fauna and flora on a much grander scale than she had for her *Caterpillar Book*.

However, after 2 years she became very ill and left in the spring of 1701. She took live and preserved specimens of lizard eggs, snakes, butterflies, lantern flies, hummingbirds, flower bulbs. These were variously pinned, or sealed in jars of brandy, for travel. She also brought back notes of her observations and sketches in her study books. The dangerous journey to Surinam in the name of science made her famous, especially among artists and naturalists in Amsterdam. Several people who saw her drawings persuaded her to have them published. The drawings served as models for her proposed book: Metamorphosis Insectorum Surinamensium (The Insects of Surinam).

But the publication was to be expensive and Maria Sibylla managed to get advance payments from twelve individuals who agreed to be subscribers. The Philosophical Transactions of the Royal Society in 1703 announced that her sample illustrations could be seen by applying to her London correspondent, James Petiver.

The book was published in 1705, in both Dutch and Latin, with sixty illustrations on large pages, showing the stages of metamorphosis. This book brought to naturalists and book collectors of Europe vivid and surprising portrayals of tropical plants and insects with a wide diversity of rainforest life, such as no other publication had ever done. She worked on white vellum (which was costly) because she could thus paint with precision and sharpness of detail, particularly in the case of the insects. Maria Sibylla made only three sets of originals on vellum which were purchased by Czar Peter the Great and by Hans Sloane for the founding collection of the British Museum.

Eventually, they came into the posession of George III. The Bodleian Library, Oxford, has engravings of the New Book of Flowers, Caterpillar Book and Metamorphosis Insectorum Surinamensium.

Maria Sibylla Merian: Artist, Scientist, Adventurer by S. B. Pomeroy and J. Kathirithamby is published by Getty. The book won a gold prize in the 2018 Moonbeam Awards.

Maths, but not as you know it...

by Dr Tom Crawford, Stipendiary Lecturer in Mathematics

In October 2017 Dr Tom Crawford joined St Hugh's as a Stipendiary Lecturer in Mathematics. He has since launched his own award-winning outreach programme via his website tomrocksmaths.com and in the process became known as the 'Naked Mathematician'. Here, Tom looks back on the past year...

The 'Naked Mathematician' idea came out of my time with the Naked Scientists – a production company that specialises in broadcasting science news internationally via the radio and podcasts. The idea of the name was that we were stripping back science to the basics to make it easier to understand – much like Jamie Oliver and his 'Naked Chef' persona. Being predominantly a radio programme, it was relatively easy to leave the rest up to the listener's imagination, but as I transitioned into video I realised that I could no longer hide behind suggestion and implication. If I was going to stick with the 'Naked' idea, it would have to be for real.



Fortunately, the more I thought about it, the more it made sense. Here I was, trying to take on the stereotype of maths as a boring, dreary, serious subject and I thought to myself 'what's the best way to make something less serious? Do it in your underwear of course!' And so, the Naked Mathematician was born.

At the time of writing, the 'Equations Stripped' series has received over 50,000 views – that's 50,000 people who have listened to some maths that they perhaps otherwise wouldn't have, if it was presented in the usual lecture style. For me that's a huge victory.



Of course, not all of my outreach work involves taking my clothes off. I also answer questions sent in by the viewers at home. The idea behind this is very simple: people send their questions in to me @ tomrocksmaths and I select my favourite three which are then put to a vote on social media. The

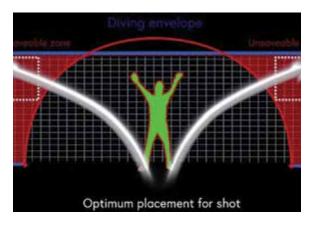
question with the most votes is the one that I answer in my next video. So far, we've had everything from 'how many ping-pong balls would it take to raise the Titanic from the ocean floor?' and "what is the best way to win at Monopoly?'' to much more mathematical themed questions such as "what is the Gamma Function?" and "what are the most basic mathematical axioms?"

The key idea behind this project is that by allowing

the audience to become a part of the process, they will hopefully feel more affinity with the subject, and ultimately take a greater interest in the video and the mathematical content that it contains. I've seen numerous examples of students sharing the vote with their friends to try to ensure that their question wins; or sharing the final video, proud that they were the one who submitted the winning question. By generating passion, excitement and enthusiasm for the subject of maths, I hope to be able to improve its image in society, and I believe that small victories, such as a student sharing a maths-based post on social media, provide the first steps along the path towards achieving this goal.



Speaking of goals, I have to talk about 'Maths v Sport'. It is by far the most popular of all of my talks, having featured this past year at the Cambridge Science Festival, the Oxford Maths Festival and the upcoming New Scientist Live event in September.



It even resulted in me landing a role as the *Daily Mirror's* 'penalty kick expert' when I was asked to analyse the England football team's penalty shootout victory over Colombia in the last I6 of the World Cup! Most of the success of a penalty kick comes down to placement of the shot, with an 80% chance of a goal when aiming for the 'unsaveable zone', compared to only a 50% chance of success when aiming elsewhere.

In Maths v Sport I talk about three of my favourite sports – football, running and rowing – and the maths that we can use to analyse them. Can we predict where a free-kick will go before it's taken? What is the fastest a human being can ever hope to run a marathon? Where is the best place in the world to attempt to break a rowing world record? Maths has all of the answers and some of them might just surprise you.

Another talk that has proved to be very popular is on the

topic of 'Ancient Greek Mathematicians', which in true Tom Rocks Maths style involves a toga costume. The toga became infamous during the FameLab competition earlier this year, with my victory in the Oxford heats featured in the Oxford Mail. The competition requires scientists to explain a topic in their subject to an audience in a pub, in only 3 minutes. My thinking was that if I tell a pub full of punters that I'm going to talk about maths they won't want to listen, but if I show up in a toga and start telling stories of deceit and murder from Ancient Greece then maybe I'll keep their attention! This became the basis of the Ancient Greek Mathematicians talk where I discuss my favourite shapes, tell the story of a mathematician thrown overboard from a ship for being too clever, and explain what caused Archimedes to get so excited that he ran naked through the streets.



This summer has seen the expansion of the Tom Rocks Maths team with the addition of two undergraduate students as part of a summer research project in maths communication and outreach. St John's undergraduate Kai Laddiman has been discussing machine learning and the problem of P vs NP using his background in computer science, while St Hugh's Maths and Philosophy student Joe Double has been talking all things aliens whilst also telling us to play nice! Joe's article in particular has proven to be real hit and was published by both Oxford Sparks and Science Oxford – well worth a read if you want to know how game theory can be used to help to reduce the problem of deforestation.

Looking forward to next year, I'm very excited to announce that the Funbers series with the BBC will be continuing. Now on its 25th episode, each week I take a look at a different number in more detail than anyone ever really should, to tell you everything you didn't realise you've secretly always wanted to know about it. Highlights so far include Feigenbaum's Constant and the fastest route into chaos, my favourite number, 'e', and its link to

finance, and the competition for the unluckiest number in the world between 8, 13 and 17.

The past year really has been quite the adventure and I can happily say I've enjoyed every minute of it. Everyone at St Hugh's has been so welcoming and supportive of everything that I'm trying to do to make maths mainstream. I haven't even mentioned my students who have been really fantastic and always happy to promote my work, and perhaps more importantly to tell me when things aren't quite working!

The year ended with a really big surprise (at least to me) when I was selected as a joint-winner in the Outreach and Widening Participation category at the OxTALENT awards for my work with Tom Rocks Maths, and I can honestly say that such recognition would not have been possible without the support I have received from the College. I arrived at St Hugh's not really knowing what to expect, and I can now say that I've found myself a family.

You can find all of Tom's outreach material on his website tomrocksmaths.com and you can follow all of his activities on social media via Twitter, Facebook, YouTube and Instagram.



My DPhil in 50 words

Eight first year Doctoral students summarise their research in 50 words (or thereabouts).

Patrick Hough DPhil Mathematics

Quantum computers are expected to be in operation as soon as 2021. Whoever has one first will be able to decrypt all currently encrypted information globally; banking, browsing, military intelligence. In my DPhil I aim to construct mathematical



problems in lattice cryptography which quantum computers can't solve so that our information may remain secret.

Amartya Sanyal DPhil Computer Science

While the effect of Deep Learning on Al systems is being seen all around the world, our theoretical understanding of these algorithms has remained relatively poor. My DPhil focuses on a better mathematical understanding of these algorithms as



well as using this understanding to improve their speed and performance.

Aashika SekarDPhil Physiology, Anatomy and Genetic.

My research focuses on understanding castration-resistant prostate cancer using prostate-like secondary cells of the Drosophila accessory gland. I utilise a combination of fly genetics, microdissection, high-resolution fluorescence



imaging and transcriptional targets analysis. To date, my work suggests remarkable parallels between regulatory processes in fly and human prostate cells, which are relevant to prostate cancer progression.

William Figg Jr DPhil Organic Chemistry

My research is focused on the structural and functional investigation of evolutionarily conserved prolylhydroxylases from single-cell organisms to higher order species using time-resolved crystallography and



protein-NMR. Prolyl-hydroxylases regulate the hypoxic response in animals and are of high therapeutic interest, currently with several inhibitors in Phase III clinical trials to treat anaemia.

David WisthDPhil Engineering Science

Mobile robots and self-driving cars need to have accurate and robust knowledge of their location in the world. This is critical for navigation, collision avoidance, and control. My DPhil focuses on how robots can combine sensor information from vision, touch,



and other sensors to better understand their surroundings.

Jinjoon Lee DPhil Fine Art

My research and practice evoke the concept of the Asian garden to explore the ways in which people experience (and create) their personal temporary and imaginary individual utopias. These Asian utopic visions are engaged in order to address



present challenges of urbanisation, human alienation, estrangement from nature and its current impasses.

Achilleas lasonos DPhil Archaeology

Deep-sea Underwater Cultural Heritage is a sensible and dull subject, but there is an opportunity to conduct academic research when datasets are already produced by the oil and gas companies. As part of my thesis I am studying



the unpublished shipwreck sites which were accidentally discovered from 2011 to 2018 in the Exclusive Economic Zone of Cyprus.

Ho Hee Cho

I examine the British and Commonwealth initiatives in international medical cooperation in relation to the Second World War. I give special attention to the British territories in the Pacific from the inter-war years to the post-WWII period. My research



will take a biopolitical perspective in studying the British efforts in expanding its medical influence in the colonies.

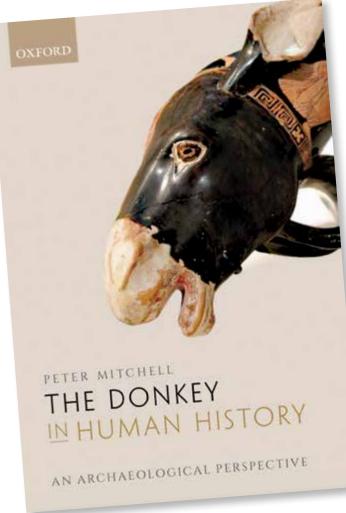


Celebrating Eeyore

The Donkey in Human History

by Professor Peter Mitchell, Tutorial Fellow in Archaeology

Let me begin with the words of a particularly well-known donkey: 'I'm telling you. People come and go in this forest, and they say "It's only Eeyore, so it doesn't count".' Eeyore had a point — he was often overlooked, something so common that one recent overview of the world's 'major domestic animals' excluded donkeys entirely in favour of guinea pigs and ducks! In fairness, of course, this omission is widely shared, with most people in the West relegating donkeys to something peripherally (perhaps painfully) experienced on foreign holidays or in the realms of children's fiction.





Christ's entry into Jerusalem in the Palatine Chapel, Palermo. Courtesy of Wikimedia Commons and The Yorck Project.

And yet – it was donkeys that carried Christ into Jerusalem, transported Dionysos into battle against the Giants, and summoned Muhammad's companions to him. Millennia before this, Near Eastern elites rode them, used their hybrid offspring to pull chariots into battle, and profited from caravans that used asses to convey valued goods over long distances and rugged, mountainous terrain. Ever since, donkeys have continued to move people and foodstuffs, plough the land and thresh the crops growing on it, and turn mills, waterwheels, and olive presses. Today, over 40 million of them engage in such work in an association that is some 7000 years old and the subject of *The Donkey in Human History*. Three examples give a flavour of what this has involved.

All four Gospels agree that Christ entered Jerusalem on Palm Sunday riding a donkey (though St Matthew bizarrely imagines a pair of animals being involved). Whatever else this implied, it was undoubtedly intended to fulfil the prophet Zechariah's expectation that the Messiah would enter Jerusalem lowly and riding on an ass, and upon a colt the foal of an ass. Most Christians would likely say that this was to show Christ's humility and His identification with the poor. Nothing could be further from the truth.





The gold, turquoise, lapis lazuli, and obsidian that feature in Tutankhamun's funeral mask all depended on donkeys for their transport and/or extraction. Courtesy of Wikimedia Commons and Roland Unger.



First, the Hebrew term that English Bibles translate as 'lowly' is actually a royal quality denoting how the person concerned is subservient and respectful to his god. Moses is so described in the Old Testament

and the Syrian king

Zakkur used it about

himself in the eighth

century BC. Second, the Hebrew text (rather than the Greek translation followed by the Evangelists) specifies that the animal had to be "a male donkey, the offspring of a jenny" or female donkey, in other words a purebred donkey, not a mule. To understand why takes us back long before Palm Sunday.

Four thousand years ago, donkeys were the container trucks of their day, tying the Bronze Age Near Eastern world together by moving essentials like tin, copper, bronze, and textiles, luxuries such as lapis lazuli and gold, and basic foodstuffs like grain. But as well as this, they also had more prominent associations, ones that connected them to ancient elites. To understand this, imagine a world where nobody has ever ridden any kind of animal and consider then what the ability to ride implies: physical elevation above everyone else; mastery of a large animal and of the specialised skills and knowledge needed to move, mount, and dismount safely; the ability to travel faster than anyone else. In the beginning those associations lay not with the horse, which only became common after 2000 BC, but with the donkey.

Ugarit lies on the Syrian coast. Texts found there recount how its gods and kings rode donkeys using reins of silver and gold, while across the Fertile

Here at lower right two mules pull a cart transporting a catapult as part of the Roman army's efforts in the First Dacian War (AD 101-102) commemorated on Trajan's Column, Rome. Courtesy of Wikimedia Commons.

Crescent near Baghdad older tablets from the Sumerian city of Eshnunna describe elite individuals as 'riders of donkeys'. A few centuries later, a high official begged the king of Mari (also in modern Syria) to 'honour his kingship' by riding in a cart pulled by mules, not on the new-fangled and hence inappropriate horse, a connection between mules and high status individuals later copied by David and Solomon and one that survived in Europe into the Renaissance.

As well as being ridden by elites and even buried with them, donkeys also received other kinds of special treatment. In Israel, for example, two were interred in the mid-second millennium BC temple at Tel Haror, while at Gath others were decapitated before burial. Bronze Age texts and Old Testament references explain such practices by noting how male donkeys were sacrificed when treaties were concluded. In one instance, for example, an official sent to supervise such an agreement insisted that only the killing of a donkey was good enough to honour the (virtual) presence at the event of Mari's king. Other Mari texts specify that these ceremonies needed 'a male donkey, the offspring of a jenny', precisely the formulation used by Zechariah over a millennium later. Tel Haror's donkeys, then, were likely sacrificed when the temple where they were buried was founded as part of a treaty, or covenant, between its makers and their gods. Putting all this together, what the Gospel narrative reveals is not, or at least not only, lesus the humble man of the people, but Christ the Messiah, heir to millennia-old Near Eastern traditions connecting donkeys with kingship, high status, sacrifice, and the divine.

My second example comes from Rome, which controlled Jerusalem when Jesus entered it. Roman legionaries were famously dubbed 'the mules of Marius' after the general who sought to limit the number of pack-animals in his army by making his troops carry more of their own equipment. In reality mules remained essential for carrying tents, hand-mills for grinding grain, extra rations, cooking gear, entrenching tools, and personal possessions. They also pulled the carts that transported the army's artillery as well as most of the vehicles of the state transport system, the *cursus publicus*. If, as seems likely, Rome's army numbered around 250,000 in the reign of Augustus, then those forces were probably supported by as many as 100.000 mules.

Until recently, archaeologists have struggled to find mules on Roman sites. Now, however, new metric, morphological, and ancient DNA analyses are showing that they were indeed as common and important across the empire, from Britain to Egypt, as texts and iconography indicate. Along with the donkeys that sired them, they underpinned local and long-distance transport, carrying goods overland, taking them to and from ports, and moving them around within cities. As essential to Classical Antiquity as cars and trains are today, donkeys and mules also powered harvesting machines, ground the flour and kneaded the dough for Rome's bread, ploughed vineyards, fertilised olive groves, and pressed the olives that grew in them.

Interestingly, Roman mules were surprisingly uniform in size and build, and perhaps deliberately bred from larger mares to produce animals taller than contemporary horses. Such preferences may signal that Roman breeders shared a concept of the 'ideal' mule and that mule-breeding was in part controlled by the state, the largest consumer of its products. Certainly, it seems to have been geographically focused, with central Italy and southern Greece particularly renowned. Moreover, in frontier regions like Austria and Britain, where colder, wetter conditions may have discouraged donkey keeping and donkeys were demonstrably rare, mules were not, a good indication that they were imported from afar. One recent stable isotope study seems to confirm this for Roman Britain, while another reveals how the diet of one mule at a fort in Bavaria changed dramatically around the age of eight as it began consuming considerable amounts of glacial melt-water. The most likely explanation? That it was repeatedly crossing the Alps to northern Italy, presumably to transport equipment, provisions, or even pay to the cohort serving at Weissenburg.

If the first half of the Bronze Age saw donkeys and their offspring elevated to the company of kings and gods only for them to be progressively dethroned thereafter (though not necessarily in their workaday importance) by horses and – in places – camels, the centuries after 1492 opened up new vistas. Nowhere was this more so than in the Americas, where llamas, alpacas, and dogs had offered the only pre-Columbian sources of animal-powered transport. Donkeys were deliberately exported to Spain's new colonies and by the 1600s mules, in particular, were widely established as the packanimal of choice.

They found one major use in supplying the rich silver mines of Potosí in modern Bolivia, which by 1611 was the largest city in the Americas. Located 4000 metres above sea-level, all the food and virtually everything else that its 160,000 inhabitants needed had to be imported from lower elevations. Llamas, of course, were important in this, but so too were mules, which could carry three to four times more: up to 60,000 were recruited every year from Argentina, almost 1000 km away, in order to power the mills that crushed the ore and bring cheese, meat, flour, sugar, metal tools, wine, brandy, and so on over the Andes from the Pacific coast.

But mules did more than supply Potosí with drink. They were essential for moving its silver to Spain. Until a direct sea route opened via Cape Horn in 1748 this required transporting the metal overland



The Camino Real de Panamá was the key link allowing Andean silver to be carried across the Isthmus of Panama for shipment to Spain. Courtesy of Wikimedia Commons and Christian Strassnig.



Donkeys remain an essential technology for the poor, especially women, in many parts of the world, here helping to transport eucalyptus wood to market in Ethiopia. Courtesy of Wikimedia Commons and li-Elle.

through the 80 km of jungle between the Pacific and Caribbean coasts of Panama. Only after more than a century was the initial system of dirt trails replaced by the paved route supported by rockcut stairs for negotiating steep slopes that is visible today. To put this in perspective, consider that between them Mexico (where pack-mules also provided most middle and long-distance transport) and the Andes produced 80% of the world's total silver output from the mid-1500s to 1810, financing Spanish imperialism and the monuments that celebrated it, driving inflation in Europe, and triggering the conversion of China's economy from paper. With donkeys and mules at their core, these processes helped bring about a unified global system of trade and shaped the emergence of the modern world.

I've focused here on just two themes: the elite and ritual associations of donkeys and their importance in long-distance transport and supply networks. Another might explore their role in boosting agricultural output by making it easier to reach remoter fields, providing an extra (and cheaper) source of power for ploughing, and transporting and processing the crops produced. Thinking about donkeys and what they help people do in this way emphasises their close ties to the rural, the poor, and the politically and economically disadvantaged. While medieval knights rode past on horseback, for example, the Cathar peasants of Montaillou immortalised by Emmanuel Ladurie were using donkeys to carry their grain to mills, bring flour back from them, export firewood and cereals, and

acquire wine, salt, and olive oil from the surrounding lowlands. Such contrasts have fed directly into how both animals and people have been thought about, associated, and treated, from Classical Greece to apartheid South Africa.

How far we can develop a view of the past that grants donkeys or other animals an agency of their own is difficult to say. Certainly, the donkey's tale, if constructed by a donkey, would depart radically in its emphasis and periodisation from the technological and dynastic schemes that archaeologists typically employ. But it seems to me undeniable that donkeys have moulded the mostly human-ordered structures in which they have lived (for example, by setting limits on how much and how fast people can move things through space and by requiring certain things to be put in place to allow this to happen, including an infrastructure of trails, inns, fodder, and harness). They have even altered the environmental contexts in which those structures operate. Thus, while power-less in relation to people neither they, nor those who use them, are wholly without power. By focusing on animals' voices and experiences, as when using archaeology to recover the life-histories of individual animals, we not only gain fresh insights into past societies, but also contribute positively to how animals (and those who depend on them) are treated in the present.

Do animals understand **Death**?

by Dr Dora Biro, Tutor in Biological Sciences, Associate Professor in Animal Behaviour

What is death? Ask children of different ages this question, and their interpretations will reveal a number of different stages over which we, humans, come to understand this fundamental aspect of biology. By the age of about 10, they will have acquired each of the components that developmental psychologists identify as necessary to produce an adult-like understanding of death: that



it is universal and inevitable (all living creatures will die), that it is irreversible (once dead, a dead creature will not come back to life), that it implies non-functionality (dead creatures do not think, feel or act), and that it ultimately has a biological cause (creatures die because their organs fail).

To what extent do other animals share this understanding with us? How do they perceive and respond to their dead? As Darwin himself asked: 'Who can say what cows feel, when they surround and stare intently on a dying or dead companion?'

Thanatology is the scientific study of death, and the newly established field of evolutionary thanatology explores the origins of death-perception and death-related practices in both humans and non-humans. To provide a roadmap for this field, I collaborated with two colleagues — Prof. James Anderson of Kyoto University, and Prof. Paul Pettitt of Durham University — to edit a special issue of the journal *Philosophical Transactions of the Royal Society*, bringing together contributions from animal behaviour, comparative psychology, developmental psychology, anthropology, archaeology, philosophy and linguistics (the last from St Hugh's very own Tutor in Linguistics, Professor Matt Husband).

It turns out that animals respond in a variety of ways to their dead, ranging from simple interest or avoidance to burying, caretaking, aggression and even necrophilia. For example, insects such as ants and termites will gather up dead colony-mates and either bury them or remove them from the nest —

clearly there are good hygienic explanations for this behaviour. Others, like dolphins, whales, elephants and primates, will tend to dead or dying relatives, protect them from potential aggression, clean them, perhaps even attempt to revive them. In these species, mothers are often particularly reluctant to abandon dead infants – a poignant phenomenon that may be explained in terms of mammals' exceptionally strong maternal bonds that persist beyond the life of the infant, or by these animals lacking the 'irreversibility' component of a full-blown understanding of death.

Can we use what we learn about animals' conception of death to treat better those that survive the loss of their companions? Some argue that allowing captive or pet animals to be present at the passing of their mates, kin or friends – such as not removing terminally ill zoo animals but allowing them to die inside their enclosures, or putting pet dogs down at home, in the company of the family's other dogs, rather than at a vet surgery - may allow them to learn about and accept death more readily. At the same time, our own attitudes to death are changing. Many of us have much less direct experience with death than previous generations, and the 20th and 21st centuries have seen huge changes in our death-related practices, from the appearance of drive-through funeral parlours, through the dissemination of death notices via social media, to funeral services for defunct pet robots.

My own interest in evolutionary thanatology began during fieldwork with wild chimpanzees in Guinea, West Africa. A respiratory disease killed a significant proportion of the population I was studying with collaborators from Kyoto University, including two of the group's young infants. Their mothers, rather than abandoning the increasingly disfigured corpses, continued to carry them for weeks, in one case even months, until they completely mummified. These observations prompted, at the time, many questions about chimpanzees' understanding of death: did the mothers know the infants were dead? Did they know that their dead infants will never come back to life? Did they grieve? These are the sorts of questions that researchers are beginning to address across an increasingly wide range of non-human species in the burgeoning field of evolutionary thanatology.

Forthcoming Events

For up-to-date information on our events, and details of how to book, please visit http://www.st-hughs.ox.ac.uk/alumni-friends/alumni-events/ email development.office@st-hughs.ox.ac.uk or telephone +44 (0)1865 613839.

16 February - Donors' Dinner By invitation only

23 February - Study Day: Women in Archaeology Join us for this fascinating study day on prominent women archaeologists, with a particular focus on those who worked in the Middle East. The study day will culminate with a screening in the early evening of a wonderful new film on the life and work of St Hugh's alumna, the late Nancy Sandars (Archaeology, 1950), who worked with the hugely influential archaeologist Dame Kathleen Kenyon, Principal of St Hugh's from 1962 to 1973.

22-24 March - Alumni Weekend in Tokyo In addition to the main programme for the University-wide Alumni Weekend in Tokyo, St Hugh's will be hosting a dinner for our alumni in the beautiful Kiku Room at the New Otani Hotel in Tokyo on the evening of 22 March. We have also organised a private visit and talk at the Nezu Museum on the afternoon of 24 March. Alumni are most welcome to bring a guest.

6 April – Armistice Tree Centenary Celebrations We hope that the Armistice Tree will be in full bloom for this very special event, at which members of the St Hugh's community and their guests will have the opportunity to enjoy a performance of Dear Chocolate Soldier, a docudrama based on the letters of Bombardier Edwin Hassall, who served in the trenches of the Somme throughout the First World War. The play is edited and arranged by St Hugh's alumna Kate Glover, FRSA (Modern History, 1965).

4 May - May Ball

The Development Office will host a special reception for alumni and their guests in the Wordsworth Tea Room at the start of the St Hugh's Ball 2019, Cygnus. The Ball Committee has planned a spectacular evening of entertainment, with three stages of live music programmed across the College's beautiful grounds, a dazzling array of food and drink, and a stunning firework display.

11 May - Afternoon Tea for Donors By invitation only

18 May - St Hugh's Alumni Association Lunch and AGM St Hugh's alumni and students, and their guests, are warmly invited to attend the St Hugh's Alumni Association Lunch and Annual General Meeting in College.

15 June – Boston Garden Party We are delighted to announce that Distinguished Friends of St Hugh's Claire Callewaert (Zoology, 1989) and Michael Callewaert will host a garden party for alumni and their guests (over-18s only) at their beautiful home just outside Boston to

celebrate the outstanding support of the College's alumni in North America for St Hugh's.

29 June - St Hugh's Garden Party Don't miss the biggest reunion event of the year, the St Hugh's Garden Party, featuring the fourth annual St Hugh's Dog Show and entertainment for the whole family.

4 July - Alumni Reunion in York Join St Hugh's in York for a fabulous evening at Fairfax House, one of England's finest Georgian townhouses. Guests will enjoy a drinks reception and private tour led by the Museum's curator, before we head to a nearby restaurant for an informal College dinner.

20-22 September – Alumni Weekend in Oxford Information on the next 'Meeting Minds: Alumni Weekend in Oxford' will be available at https://www.alumni.ox.ac.uk/alumni_home in due course.

St Hugh's will host the annual Jubilee Lunch on Sunday 22 September for alumnae who matriculated in 1949 or earlier, 1959 and 1969. Alumni from all years are warmly invited to visit the College throughout the weekend, and the grounds will be open as usual between 10am and 4pm.

Please continue to contact the Development Office if you have ideas for events or would like to hold a reunion event of your own - we will be delighted to hear from you.



Thank you to all who contributed to the St Hugh's College Magazine. Please contact us if you would like to share your news and stories in the next Magazine. We would be delighted to hear from you.

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