



Brazen Notes

Living Space

We are happy to report that work has now started on the construction of a major new accommodation block for Brasenose students at the Frewin site.

The new block will provide 30 new study-bedrooms for undergraduates, together with some communal spaces for socialising and study, and music practice rooms.

The block will make up three sides of its own quad and will sit behind a stone wall, erected where a wall had traditionally stood. This will have the effect of screening the new quad from the rest of the site, creating an intimate and private space, while masking the unsightly blank walls that surround the space now. The new quad will provide a pleasant and tranquil space for students to relax and socialise. The project is scheduled for completion in time for the 2023-24 academic year.

Central to the site is Frewin Hall, which has a long history dating back to the Norman period.

The Hall was first used as accommodation for Brasenose students in the 1940s. At the time, only the Hall was used, as the other buildings which bounded the nearby streets were let to others, including St Peter's College.

Residents of Frewin Hall reached their rooms through an alley off Cornmarket (called Frewin Court) which leads past the Oxford Union. This



insalubrious entrance was closed off in later years by the then Bursar, Robert Gasser. By the 1970s, as the demand for accommodation grew, Brasenose took back control of all the buildings on the site, turned their entrances from the street to the inner courtyard/quad, added a new block, and opened up the whole site to house our students.

Many of you will be aware that the site, bought by Brasenose in 1584, has great historical significance, as it is the site of Oxford's lost college, St. Mary's. The planning of this new development has prompted deeper explorations into its past, and we will be sharing more information about this fascinating history in the near future.



Above: Mock-up views of the completed site.
Images: Lee Fitzgerald



Art for the Annexe

We are absolutely delighted that eminent sculptor and Brasenose Honorary Fellow **William Tucker (Modern History, 1955)**, has kindly donated his creation *Messenger* to College, which has now come to rest in its new home in the Frewin annexe. *Messenger* is a bronze representation of a springing foot and ankle. It is approximately 3 metres tall, and is thematically related to some of Tucker's other works which are in collections of MOMA New York.

In this Edition

Digitisation Project	Page 2
Brasenose Student: Interviewed	Page 3
The Principal's Blog	Page 4
Your News	Page 6
Forthcoming Events	Page 8

Historic BNC Library Items Digitised

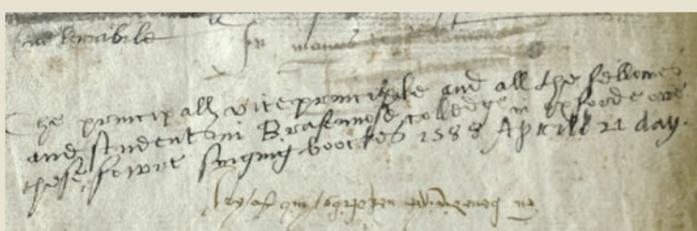
We are very excited to announce some recent digitisation projects that the Library has embarked upon. Using kindly donated funds from The William Delafield Charitable Trust, we have added 5 new items to Digital Bodleian (see them at: <https://digital.bodleian.ox.ac.uk/partners/brasenose/>), the Bodleian's digitised content portal. This fantastic website hosts many wonderful items from the Bodleian but features items from the Colleges too. In addition to the 18th century maps previously uploaded from the Archives, you can now find a digitised copy of our earliest library catalogue. This document, written in ink on parchment, was drawn up around 1556, probably for the Marian Commissioners who required that the contents of the college libraries should be produced for inspection. This catalogue has only "librorum nomina in bibliotheca" ("the names of the books in the library") as its title and lists 102 items. Most of these can still be found in the library today.

We wanted to have something from our early printed collections too, so we chose a rare 4 volume set of partbooks – a four-part harmonization of the psalms set to music. This set was printed by John Day in 1563. It was the first Elizabethan edition of Sternhold and Hopkins' metrical verses, though many editions were printed during the 16th century. They were often printed on poor quality paper and because they were used so often, wore out, which is probably why it is rare to have a full, complete set. They were illustrated with woodcut initials and some full page illustrations:



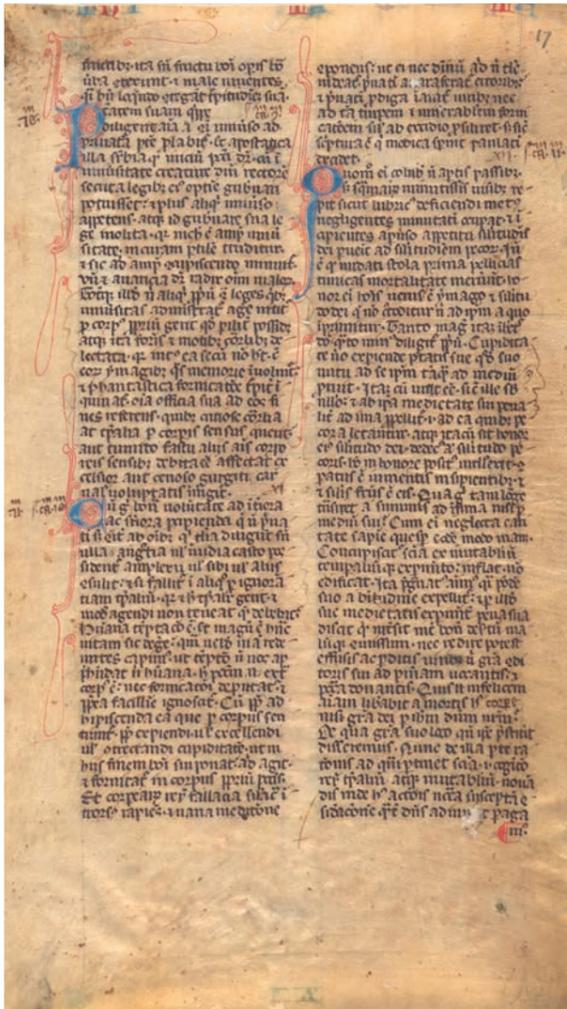
UB/S III 18/4 leaf A1v

These volumes are also of interest because of the manuscript notes and doodles which appear on the blank leaves. From these we know that these volumes have been in the library since 1588:

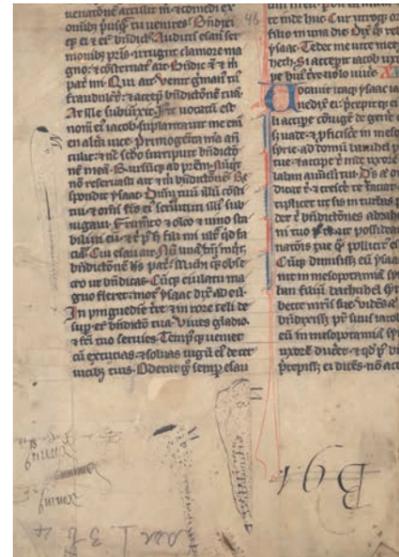


UB/S III 18/1 Detail from lower flyleaf verso

Another digitisation project has involved our manuscript fragment collection. We commissioned photographer Colin Dunn to photograph over 200 manuscript fragments which were removed from the bindings of 15th, 16th and 17th century volumes in the library. While the idea of such a procedure strikes horror in the heart of a librarian today, it was apparently deemed a better way of preserving them in Oxford during the late 19th and early 20th centuries. Unfortunately, most were removed without any information about the binding they had been taken from, information which we would now consider extremely important in terms of the history of the book and binding practices. We were left with folders of manuscript fragments dating from as early as the 12th century but with hardly any indication of what they were. It was a common practice for 16th and 17th century binders to use old manuscripts (which were considered disposable with the advent of printing) to line the insides of the bindings. Several lost works have been found this way so we wanted to be able to store and document these fragments to enable further research to take place. We now have high quality digital images of all the fragments which will enable us to share these interesting objects with a much wider audience, particularly important in the current travel-restricted environment. Only a small handful have been identified so far but we hope to learn much more about them in due course. There is a wide variety of writing styles; some have coloured illuminations, others have small drawings next to the text or musical notation. Having digital copies to work with will allow us to conduct further research, and perhaps in some cases match the fragment up with the original book by investigating earlier shelfmarks and catalogues.



Above: Probably a 14th century copy of Augustine, *de Trinitate*
 Above right: 14th century Bible?
 Right: Possibly a 14th century breviary



Interview: Priyadarshini Chatterjee

Priyadarshini Chatterjee (Molecular and Cell Biochemistry, 2017) has just completed her final year at Brasenose. We caught up with her to find out more about the field of Biochemistry and what it's been like to study it during a pandemic.



tropical viruses, cause disease. It is fascinating how viruses can hijack cellular processes and manipulate host immune responses. It is this intersection between virology and immunology that I find extremely exciting.

What has it been like to study Biochemistry during the coronavirus pandemic?

The pandemic started shortly before my finals last year. Not only did the pandemic put a halt to all of the normalities of College life for me, but it eventually went on to affect my final project. My final project was supposed to be to investigate HIV induced dementia in Professor James' lab. However, in an attempt to help understand the SARS-CoV-2 virus better, a large number of University labs had switched focus to SARS-CoV-2. This meant I had the opportunity to work on SARS-CoV-2 for my final project during the pandemic. I have been very lucky to be a part such an amazing lab group which allowed me to continue to carry out wet lab experiments during the series of national lockdowns we had over the course of the academic year.

What did you learn from your final project?

My project was to set up new cellular models to investigate SARS-CoV-2 infection. One popular model that scientists use is Vero cells. These are cells from the African Green monkeys and are used because they are easy to grow in the lab and are highly susceptible to viral infections. My aim was to

set up a more physiological relevant human lung model. By the end of my project, I had successfully set up a human stem cell derived-alveolar cell model which I used to investigate viral infectivity mechanisms.

Have you been involved in any way with the Oxford Vaccine Group's development of the Oxford vaccine or know anyone that has been?

I haven't personally been involved in with the vaccine research, however our lab, headed by Brasenose Professor William James, has looked at the efficacy rates of some of the vaccines, especially against the newer variants. It was an exciting time to be in the lab at the time the research was happening.

What do you hope to do after leaving Brasenose?

I have a PhD lined up as part of the joint Skaggs-Oxford programme, so I'm thrilled to say that I'll be back in Oxford in October. I'll be investigating how the Dengue virus manipulates cellular pathways such as the unfolded protein response to evade host immunity and look into how to target these pathways, as a part of Prof Nicole Zitzmann's lab. Sadly, I'll be moving from Brasenose to Lincoln College for the PhD, however, as it's only next door, I'll certainly look forward to keeping in touch with my friends and tutors at Brasenose. I have so many fond memories of my time at Brasenose.

Why did you choose to read Biochemistry?

I enjoyed learning about biological processes at school and wanted to understand more about what's happening at the single molecule level. Reading Biochemistry has allowed me to pursue this interest and do precisely that.

What interests you most about Biochemistry?

I'm from Kolkata, India where infectious diseases such as dengue fever and malaria are a part of daily life. I am interested in how viruses, in particular,

Just for Starters

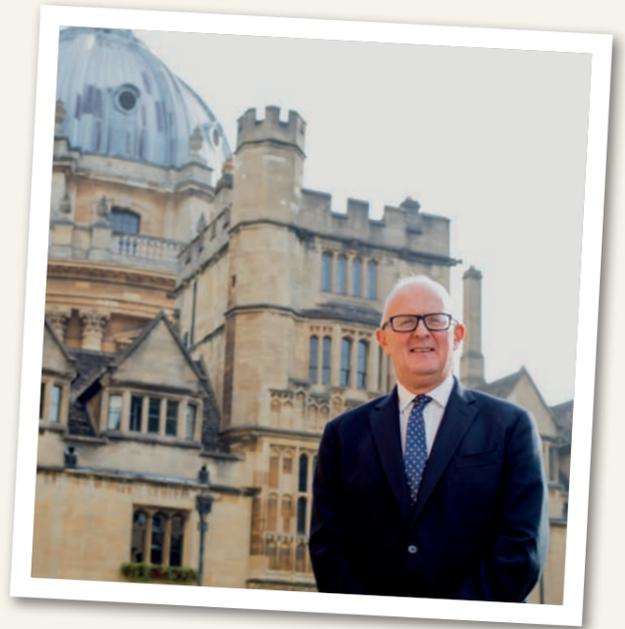
In summer 2021, the Brasenose Buttery and Kitchen staff emerged after not having served a formal meal in Hall for around 14 months – could they remember how to do it? Judging by these pictures and the fantastic Brasenose Society Annual Dinner in September, the answer is a resounding 'Yes!' Well done to all involved.



The Principal's Blog

Brasenose's Principal, John Bowers QC, keeps a blog of his thoughts and impressions of Oxford College life. We have gathered some snippets from the last few months to give you an insight into Brasenose's daily running. Read the full blog here:

www.bnc.ox.ac.uk/about-brasenose/princblog



September 2020

It is great to see that the University of Oxford occupies the top spot in the 'The World University Rankings 2021' for the fifth consecutive year.

On 13 September our Fellow in Management Chris McKenna addressed the Swiss Friends of Oxford about his work on the history of the development of penicillin which of course has echoes of the present race for a vaccine for coronavirus.

On 16 September we had the Brasenose Women's Network Zoom event. Some great and varied contributions from our alumnae, who joined us from as far away as Johannesburg and Toronto.

October 2020

Tributes are pouring in after the death of our Emeritus Fellow in Law, **John Windsor Davies (Law, 1954)**. John passed away after a short illness on 21 October 2020, aged 86. He will be sadly missed by his former students, his colleagues, and the whole Brasenose community.

The first Blurbs of this year on 29 October featured Dr Sneha Krishnan, Tutorial Fellow in Geography, talking about "The Real and Imagined Lives of Henrietta Clive: Chasing Love and Murder in the Colonial Archive". The HCR speaker was Estella Kessler, who is a DPhil student in Classical Languages and Literature who considered "The Marvellous Callimachus of Cyrene or how to discover the Wonders of the World from your desk".

I am also delighted that we celebrated 100 years since women were first allowed to study at this University.



The first women to be awarded degrees at Oxford University. Image credit: Lady Margaret Hall

November 2020

Congratulations to Geoff Bird and Bill Swadling for being recognised in the 'Recognition of Distinction' for this academic year.

The next Head of Department for Economics, **Hamish Low (PPE, 1990)** will take this position in summer 2021 for a period of three years.

On 25 November, the Zoom chat was buzzing in the BNC Women's Network event called *Women in a "man's world"*. The event was a panel discussion between five alumnae about their comparative experiences of being women at Brasenose and in the workplace over the past five decades. They were **Paula Carter (Chemistry, 1978)**; **Sonia Blizzard (Oriental Studies, 1989)**; **Namarda Thiranagama (History, 1996)**; **Helen Summersgill (Physics, 2008)** and **Jasmine Ko (Economics & Management, 2013)**. It was a great event, well chaired by **Sarah Jackson (Classics, 1977)**.

On 26 November Perla Maiolino delivered an excellent Blurbs for the HCR about her work in robotics especially on robots with a sense of touch. She was partnered with Azania Patel who is doing a MPhil in Modern South Asian Studies. Her talk was entitled "Rehoming Ghosts Modernity in Mumbai".

December 2020

I am delighted to report that our new Kurti Junior Fellow James Grist has been involved at the Churchill Hospital in running a project with Professor Fergus Gleeson looking at a new imaging technique to understand damage to lungs post-COVID.

The Chaplain put on an excellent interfaith event on 30 November. Aisha Sadiq spoke of Eid, Aaron Barrie on Hanukkah and Andy Lee on Advent and we spoke about the similarities and differences in our religious faiths. Suzanne and I lit the Hanukkah candles at the end (albeit prematurely).



The Tower Bursary Arch

January 2021

I am delighted that OG Stonemasonry have installed the BNC Commemoration to our benefactors. Carved in stone, the Commemoration is opposite the Lodge in the Tower archway. It lists donors to the College dating back to our founders. Brasenose has benefited from the generosity of its former members and friends for centuries, and that tradition continues today; around a dozen of those who are celebrated on the plaque are living alumni and friends who have made a significant impact on the functioning of Brasenose over the last few years. This is a fitting tribute to them.



Honorary Fellow Martin Forde QC

At the last Governing Body meeting of 2020, **Martin Forde QC (Jurisprudence, 1979)** was elected to an Honorary Fellowship. Martin has remained very close to College and has been particularly supportive of our efforts to increase the proportion of BAME members of our community.

A huge thanks to all involved in the Brasenose and St Catherine's College Cambridge virtual outreach event on 31 January. We broke all records by having over 700 Year 12 state school students joining the session from all over the country.

February 2021

I want to pay tribute to Dr Llewelyn Morgan who has edited the Brazen Nose since Volume 47 (2012-2013). We wish him a long and happy retirement from the role as Editor. I also welcome on board, as the Editor for the next edition, Dr Simon Palfrey, one of our Fellows in English.

Another excellent Blurbs was held on 12 February. Dr Andrew Edwards, who is a Charles Wilson Career Development Fellow in the Global History of Capitalism introduced us to his work on the relationship between empire, global monetary regimes, and the European world system in the 18th century. The HCR speaker was Christian Norton, who is a DPhil student in the Natural Environment Research Council Doctoral Training Program.

Lord Chartres gave the Annual Runcie Sermon on 14 February. He had been the Chaplain to Archbishop Runcie between 1975 and 1984 and was Bishop of London from 1995 to 2017. The theme of his sermon was the true nature of freedom and our resulting responsibility – a subject very central to Runcie and his ministry.

The long tradition of Ale Verses was maintained for the first time virtually this year. The winning entry was "You lock me down" by The Kiln Household, but there were very creditable other entries including "Guide me oh Mark Wilson" and Estella Kessler's "No more suit & tie".

March 2021

I am delighted to record that our alumnus **Paul Pester (Engineering Science, 1985)** has been selected to represent Team GB in the triathlon world championships in Bermuda in October.

The JCR and HCR have embarked on a four-week fitness and fundraising challenge in order to raise money for 5 mental health charities that support students. Our challenge is part of the BRIT 2021 Challenge (<https://www.thebritchallenge.org.uk/>) where every UK university, college and student union have been invited to take part and enter a team.

BNC dominates the Supreme Court! We send congratulations to **Dame Vivien Rose (Jurisprudence, 1982)**, our Brasenose Honorary Fellow and alumna who will soon be sworn in as a Justice of the Supreme Court of the United Kingdom.

On 23 March, under the leadership of our Chaplain we took part in the 'National Day of Reflection' for the first anniversary of the UK lockdown, to commemorate this tragic loss of life and to stand together with everyone who is grieving.

April 2021

This year's Telethon produced our best ever result. A great big thank you to our student callers and all those alumni who contributed to this.



BNC's 2021 Telethon callers

Congratulations to our Golding Senior Fellow Masooda Bano who won the European Research Council Advance Grant, which is seen as a very prestigious award and gives her 2.5 million euros over five years to build a research team to study Islamic conservatism among young Muslims in Europe.

Congratulations also to **Katie Anderson (Economics & Management, 2018)** who rowed in the Women's Boat at the Boat Race.

May 2021

On 3 May, the Chaplain organised an excellent Interfaith event on the Book of Esther addressed by Sara Wheeler, our Royal Literary Fund Writing Fellow.

Elsbeth Garman graced an edition of Michael Portillo's Great British Railway Journeys on BBC1 talking about women in Oxford and in particular Dorothy Hodgkin.

Congratulations to **James Nevett (History, 2018)** – our Bible Clerk who won a Council seat in East Chorley.



Councillor James Nevett

June 2021

This has been a very challenging year for College and its students but I am delighted to say that in the recently published Norrington Table for 2020 Finals, we came seventh which is a very creditable achievement.

There was a wonderful and moving service on New Quad for the Leavers Service on 13 June. I offered thanks to the choir and all those involved in chapel (especially Rev. Julia and Christian Wilson) for their magnificent work during the pandemic in keeping the College community alive.

Brasenose Rowing 2021: Joe Carey, Boat Club President, has provided a factual summary:

M1: Bumped by Queen's and bumped New, bumped by New, bumped by Mansfield, bumped by Hugh's.

W1: Rowed over, rowed over, rowed over, bumped John's.

M2: Bumped Balliol II, rowed over, bumped by Benet's, New II and Merton II, bumped by Univ II.

W2: Bumped by ChCh III, bumped by Teddies II and Wolfson IV, bumped Benet's, bumped by Osler I and II.

Your News

This is where we share your news. Whether it is an award, personal achievement, a new baby, job, or just an update on how you are getting on – we want to hear it! If you would like your news to be included in a future issue of the *Brazen Notes* (or *The Brazen Nose*), email us at development.office@bnc.ox.ac.uk or use our handy submission form at <https://www.bnc.ox.ac.uk/submissions>



Dori Gilinski (Philosophy & Mod Langs, 2008) and **Peter Burgess (Ancient & Modern History, 2008)** welcomed a baby girl, Ellie Alexandra.

Peter J. Kalis (PPE, 1973): After a 20-year run as Chairman and Global Managing Partner of K&L Gates LLP, one of the world's largest law firms, Peter Kalis, D.Phil. 1976, has been appointed as the firm's Chairman Emeritus. During his tenure as head of the firm, it grew from under 400 lawyers in 6 offices in the Eastern Time Zone of the US to 2,000 lawyers in 48 offices on five continents, while the firm's revenues grew by 740%. Dr. Kalis first experienced the harsh lessons of management as President of the Hulme Common Room when he negligently permitted the instant coffee cupboard to be depleted with no reinforcements in sight. His HCR partners never let him forget the incident, and he is proud to have never allowed his law firm to run out of coffee.

Peter Jackson (Modern History, 1977): has spent ten years in his spare time researching and writing a historical thriller, *Legions of the Moon*, set in Britain 1,800 years ago. He tells us '...the hardest part was not the historical research, for which my BNC training under the late Dr Philip Jones had ably prepared me, but the ruthless discarding of that research which did not meet the exigencies of plot and character.'

Lucy Murphy (née Alexander) (Modern History, 1986) has spent the past 15 months establishing and managing global supply chains for the AstraZeneca COVID-19 vaccine, developed of course by the university's excellent researchers and distributed globally for no profit in over 120 countries. Looking forward to re-connecting with old friends and colleagues after working non-stop around the clock from the basement of my house outside Washington, DC all this time!

Keith Cima (Engineering Science & Economics, 1970): Retired from the RNLI end of 2018 (full time and then volunteer coxswain at Tower Lifeboat Station). Ended 46 years in military uniform on 1 Jan 20 with final retirement as a Colonel Commandant Royal Engineers. Gained French citizenship in Jan 20. Then back into a uniform from Mar 20 with Protection Civile in France on Covid missions, which remain ongoing (Jun 21).



Sam Bellas (Management Studies, 2009) was promoted to partner at EY where he helps global organizations determine their future real estate needs. He lives near Washington, DC, with his wife, Laura who joined him at Hollybush Row, BNCBC, Blurbs, etc., and their 5yo son and 7yo daughter. Sam was lucky enough to enjoy the guest accommodations at Brasenose on his last trip pre-Covid in February 2021, when he snapped this photo.



Michael Humphreys (Jurisprudence, 1989) has been appointed Judge of the High Court of Justice in Northern Ireland, February 2021.

Stevie Zimmerman (née Loshak) (English, 1982): My father, David Loshak, BNC 1952, died in April 2021 after battling kidney & heart disease & dementia for the last 2 years. His loss in the midst of the global pandemic was sharp & enduring. I am hoping to work up an obit for the next BNC publication. He was a regular attendee at Brasenose events & loved keeping up with his own peers as well as mine from some 30 years later – special thanks to Mark Skipper for again being a staff of care & love & support. Meanwhile, whilst my work as a theatre director in D.C. has been in a prolonged hiatus, I continue to work in audiobook narration, experiencing one of the few pandemic booms. Hello 1982...

Dr Naila Nielsen (Life Sciences, 2003): We are pleased to announce that Naila has been promoted to Managing Director at HSBC. She is currently the COO for Retail, Wealth, Insurance and Private Banking at HSBC. Congratulations Naila!



The Reverend Patrick Alexander Irwin (Classics, 1973) writes: At the end of June 2021 I completed my tour as Chaplain of the Church of St Nicolas of Myra, the Anglican church in the British Embassy compound in Ankara. This year I took the annual Commonwealth and Ireland service at Cape Hellen Memorial, Gallipoli, which last year had been cancelled. My flowing robes led the Irish Ambassador's daughter to say that I looked like God, an unexpected compliment!



Louis Trupia (History & Politics, 2014)

married Ben Melliush on 26th June 2021. Despite both living and working in Oxford for the same three years, it was only after they both left the city that they met. Despite the pandemic's best efforts, they were still able to get married on their original wedding day with relatively few changes!

Annie Pesskin (née Mills)

(Human Sciences, 1994) writes:

I have become a psychoanalytic psychotherapist in Oxford where I now live with my husband, Alan, and two daughters, Lola (15) and Saskia (13). I also blog about how the unconscious parts of our mind direct our behaviour in fascinating ways.



Peter Crawford (Law, 1949) says: I matriculated in 1949 to read Law under Barry Nicholas. I am pleased that my grandson will matriculate this year at New College to read Greats.

My second news is that unfortunately I now suffer from Macular Degeneration which prevents driving and restricts reading, but escaped Covid. Are there any other 49ers still intact?



James Hanson (Mathematics, 1995)

writes: as of 4th July 2021, I was blessed to be Ordained Deacon into the Church of England, at Guildford Cathedral, by Bishop Jo Bailey-Wells. Now serving my title post at Alfold and Loxwood in the Guildford Diocese.



Chris Lawson (Classics 1988) is delighted to announce that he has been promoted to the rank of leading porter at the Bluebell Railway. Following several written and practical assessments, he finally ran Kingscote station as a temporary station master for a day. Classics mods in 1990 were not so tough as this procedure.

Joanne Blackshaw (Modern Languages, 1991):

Rowed in the BNC Women's First VIII as well as coxing/coaching some men's college crews, and also competed in the 1992 Women's Boat Race gaining a Blue. Since leaving Oxford she has only very occasionally stepped back into a racing boat but now, 30 years after going up to Oxford, she is part of a crew of four 40-something working mothers competing in an Atlantic Challenge race. They will be rowing unaided and racing against international teams 3000 miles across the Atlantic Ocean. Very best of Brasenose luck, Jo!

Editors Note: This is a selection of the news we have received. If you cannot see your submission printed here, it may appear in the next edition of the Brazen Notes or The Brazen Nose. Please note that Brasenose College reserves full editorial control over all its publications.

Peter Sinclair Memorial

On Wednesday 6th October, former students, colleagues, family and friends of the late Professor Peter Sinclair came together in the University Church to remember his kind and gentle character and pay tribute to his influence on the lives of his students, on the study of Economics, and on our society. He passed away in March 2020, aged 73.

Peter taught Economics at Brasenose for 24 years, and is remembered as a much loved and hugely respected tutor. He later took up a professorship at the University of Birmingham, but always maintained a close connection with Brasenose, becoming an Emeritus Fellow in 2008 and regularly attending dinners and keeping in touch with his BNC students and colleagues. He was a distinguished expert in his field, with expertise in monetary policy and international economics, and he authored several books. He advised governmental institutions on economic matters, including the Bank of England and the Office of National Statistics, among others.

He was a great inspiration to his students, many of whom have become prominent economists themselves. Regardless of their chosen career, the common thread amongst those who attended the service was that Peter's influence upon them was life-changing.

We know that many others who were not there in person will want to see the service, and it is now available to watch online at https://youtu.be/zCeCKeqqO_Y or <https://www.bnc.ox.ac.uk/alumni/recordings>

Peter Sinclair 18 September 1946 – 31 March 2020



The Heffernan Sinclair Scholarship

While he was still with us, Peter part-funded a scholarship for a graduate student at Brasenose College named after his first wife, the academic Shelagh Heffernan, and himself. It was Peter's wish that this fund supported a graduate student in Economics at Brasenose.

Peter made such a difference to the lives of many in the BNC community and beyond. To honour him, Peter's students have generously pledged to fully-fund this scholarship in perpetuity in order to continue and build upon his legacy at Brasenose and in the study of economics.

All those who wish to remember Peter's warmth, kindness, and brilliance, may contribute to the fund by giving here: <https://www.bnc.ox.ac.uk/petersinclairfund>

Save the Date

Forthcoming Events

Gaudy for 1990-1991

6.00pm, Friday 18 March 2022
College

Golden Jubilee Lunch for 1963-1972

12.30pm, Friday 1 April 2022
College

Diamond Jubilee Lunch for 1962 & before

12.30pm, Friday 6 May 2022
College

Gaudy for 1994-1995

6.00pm, Friday 24 June 2022
College

Gaudy for 1992-1993

6.00pm, Friday 2 September 2022
College

BNC Society Annual Dinner

Saturday 17 September 2022
College

Gaudy for 2004-2005

6.00pm, Friday 23 September 2022
College

Go to www.bnc.ox.ac.uk/alumni/events for an up-to-date list of our upcoming events, and to register. For online bookings, please note that if you don't already have an alumni account, you will need to set one up. For new registrants, please be aware that we will need to verify your account (during normal College working hours) before it can be made active for event bookings. To update your contact details using our online alumni community, visit our alumni pages at: www.bnc.ox.ac.uk/alumni

Brasenose Knows...

We leave you with another brain-teaser from **Professor Konstantin Ardakov**, Tutorial Fellow in Mathematics at BNC. Email your answers to development.office@bnc.ox.ac.uk



Question:

Let $a < b < c$ be real numbers. Show that the equation $\frac{1}{(x-a)} + \frac{1}{(x-b)} + \frac{1}{(x-c)} = 0$ has two roots x_1 and x_2 , which satisfy $a < x_1 < b < x_2 < c$.

And the answer is... issue 29's answer was:

Write $x-y=a$, $y-z=b$, and $z-x=c$ so that $a+b+c=0$. Using the binomial expansion, we see that $a^5+b^5+c^5=a^5+b^5-(a+b)^5 = -5ab(a^3+2a^2b+2ab^2+b^3) = -5ab(a+b)(a^2+ab+b^2)$ is an integer multiple of $5abc$.

Call for College Memories!

Have you stumbled across any BNC gems whilst undertaking a spring clean? We'd love to see them! Get in touch to let us know what you've found at development.office@bnc.ox.ac.uk

Changed your contact details?

If you have a new address, email or phone number, do please let us know so we can keep our records up to date. If you would prefer not to receive Brasenose publications and mailings by post, please get in touch and we will update your contact preferences.

Once a Member of Brasenose, Always a Member of Brasenose

We'd love for you to keep in touch

Contact Us

Alumni Relations and Development Office
Brasenose College
Radcliffe Square
Oxford
OX1 4AJ

Tel: +44 (0)1865 287275

Email: development.office@bnc.ox.ac.uk

Join us on social media

 www.facebook.com/brasenosecollege

 www.twitter.com/BNC_members

 www.instagram.com/brasenosecollege

