

THE OLD BLUE

AUTUMN 2022

Step into the fascinating world of manufacturing unmanned ocean-research vessels

Old Blue Anna-Marie, now a proud Weapons Engineering Officer for the Royal Navy

Remembering all the ways one can respond to The Charge

Showcasing The Doyle School of Design and Technology

Design and technology pupil success

A glimpse into engineering history made by Old Blues over the years

Upcoming events and CHOBA chair updates

Christmas Carol Concert date announced



CHRIST'S HOSPITAL

A SCHOOL LIKE NO OTHER

JESSE LOYNES OUT ON THE WATER

Fleet Manager Jessie Loynes (MaB, ThA 89-96) shares an insight into his fascinating world of manufacturing uncrewed ocean-research vessels.

Can you describe your career now in a few sentences?

I am Fleet Manager at Autonaut. We manufacture and operate long-endurance, uncrewed, ocean-research vessels. I'm responsible for workshop production and on-the-water operations, as well as delivery to clients and training.

How did you get into this career?

After leaving CH, I spent a couple of years at Loughborough University, and then took a break before my final year. I was a dinghy sailing and windsurfing instructor for a couple of seasons. I then retrained as a traditional wooden boat builder in 2001. I have worked with various companies, as well as being self-employed, repairing and restoring classic yachts. I was recruited to the Boat Project in 2010, and moved to Modern Marine Composite Construction, after which I ran my own yacht-building company. I started working at Autonaut in August 2016, after choosing to move away from the leisure industry and spotting a job advertised in a window.

Have you had any interesting or unexpected detours along the way?

I was lead boatbuilder for the Boat Project, an Arts Council project for the London 2012 Cultural Olympics; it was one of 12 regional projects for public engagement. We had more than 1,200 different pieces of timber donated, each with a history or personal story. They were all used to build a wooden yacht called *Collective Spirit* that then sailed along the south coast, visiting locations where people had made donations. We had items from the Mary Rose, Ark Royal, the Olympic Velodrome and Windsor Castle, as well as hockey sticks, wooden spoons, musical instruments and many other items. More than 70 volunteers helped with the build, over 18 months. It was a delight to share the project with them, as well as thousands of visitors, to explain the work and to pass on skills to everyone taking part.

I'm also back at university, more than 20 years after taking a break, studying for a postgraduate diploma in engineering

as an apprenticeship, sponsored by my workplace.

What motivates you in this field? Is it environmental factors or sheer craftsmanship?

The classic yacht renovation was definitely motivated by craftsmanship. While there is less elegance in building the uncrewed vessels, there are different challenges. We now confidently go to sea for three months or more at a time. Developing that endurance and ensuring the highest levels of reliability and rigour in our build techniques, is very satisfying. We are one of only three companies in the world that can reliably achieve offshore missions of more than one month. Our ocean research stretches across many fields; the collection of MetOcean data and monitoring of marine mammals are our two largest sectors. Being part of the process of understanding and protecting that environment is very motivating.

What is important for other people to know about Autonaut?

Autonaut is essentially a micro enterprise and, as a small company, we all have multiple roles and support each of our colleagues at different stages of every project. We have also achieved great things through that collaboration and support, matching the achievements of huge multinationals, while keeping to the values of the small business that we all support.

What attracted you to this cause?

I love the problem-solving aspect. We are always creating something new, managing new challenges, or extending our at-sea endurance. I've helped Autonaut to develop its mission time from 45 minutes to more than three months in the past six years, with increasingly demanding payloads, operating areas and data management needs.

How did it feel when you completed your first boat?

As a boatbuilder, I had a decade of renovating and repairing yachts before I actually built a boat from start to finish.

That was the Boat Project, immediately followed by another new sailing yacht. I'm now starting my 12th Autonaut. Each one has been special, each one has involved development and improvement from the last, but *Collective Spirit* (pictured middle, right) will always be something special. To have some small part in the 2012 Olympics, to be involved with such a unique project, made stepping aboard for our first sea trials truly memorable and so exciting.

What was the most significant moment during your career?

Launching the Boat Project in front of 2000 people was pretty huge for me. Completing 115 days at sea with an Autonaut last year was another significant moment. Both were results that went so far beyond the original goals, pushing the boundaries of what's achievable. Anything is possible.

In what ways are you a different person today because of what you do?

I'm confident now that there is little that can't be achieved or learnt; it just hasn't been done yet. There is always a way, and now I'll look for the collaboration with others and explore as many options as possible. I've also learnt that we're most productive working in the right environment, balancing work with a healthy mindset.

How has this experience impacted the decisions you make today?

I'm more considered and less hasty. I try to be realistic about timelines and healthy workload. I'm better at realising what has value and importance, rather than just urgency.

Name your top four lessons from this career.

1. Pick a career you that will interest and challenge you.
2. 40 hours a week is too long to not enjoy.
3. Positive communication and relationships are key.
4. Look for the opportunities.

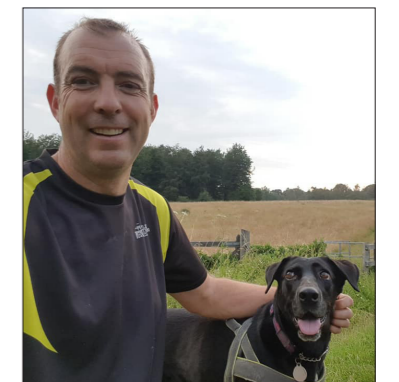


A day in the life of Jesse Loynes

With my combined role now, my days can be pretty varied. In the workshop, I focus a lot on using my practical skills, such as working with epoxy resins and fibreglass, constructing custom structures for some of our vessels, fitting sensor packages and payloads, and working with our system engineers to test each vessel. It's a full-on physical job in the workshop.

At my desk, however, my biggest current project is steering us through the developing regulations being applied to our industry. I am working with the Maritime and Coastguard Agency and fellow manufacturers to define best practice for this emerging technology, which is an incredibly important part of the bigger picture.

In addition to this, I spend plenty of time out of the office, either on the water conducting sea trials and deployments, or working with clients to train their staff to operate safely the vessels we build at sea. All of these aspects help to make a project successful.



Jesse and his rescue dog, Sophie

A MIGHTY ROLE IN THE ROYAL NAVY

Anna-Marie Stanley (BaA, GrE 12-14) talks us through her fascinating post as a Weapons Engineering Officer for the Royal Navy.

Can you describe what you do for the Royal Navy and what the job entails?

I am the Deputy Head of the Weapons Engineering Department of *HMS Dragon*. I have responsibilities for systems and equipment in a department of 50 personnel. My primary task is to seek the optimum performance and availability of radar, communications and weapons equipment onboard the ship, while ensuring adherence to the Safe Systems Of Work. This is done by monitoring system performance through managing defects, planning regular calibration of equipment and providing advice to operators and the Command.

How did you get into this profession?

I studied physics at the University of York after leaving Christ's Hospital. At York, I joined the University Air Squadron, which is a recruitment section of the RAF that functions much like any other society at university. From here, I started looking into engineering posts that would accept a physics degree. I started looking at the Royal Navy, and was sold by the prospect of travel and the quick route to becoming a chartered engineer.

Was there anyone who influenced you to go into this field?

At school, I was never certain of what I really wanted to do. My best friend was very enthusiastic about physics; so she gave me the passion I needed to choose it for my degree. From there, I tried to keep my options open and explore as many different avenues as possible through placements before deciding on my career.

What motivates you in this field?

The people in the RN motivate me to work hard. When onboard, you are living in a relatively small area with a large amount of people. If you do not do your job to the best of your ability, it will have direct impact on those around you. This is especially relevant in matters of safety. The working environment can be unforgiving owing to the nature of being at sea, so it is vital that everyone onboard looks out for each other and works hard as a team.

How does it feel being a woman in a traditionally male dominated industry?

Through training and promotion, being a woman has no impact on our career

progression. I think times are changing for the better, and especially for the younger workplace generation, there is little difference between the sexes. The difference is noticed more in the social setting when there are fewer females onboard and you would prefer some female company. The only way to change this is to encourage more young women to study STEM subjects and consider a life in the military.

What was the most significant moment during your career so far?

The time I have most enjoyed was when *HMS Dragon* visited the US as part of Westlant 19. During this deployment, *HMS Dragon* acted as a guard ship to *HMS Queen Elizabeth*, while she did flight trials of the new F35 jets. Witnessing a jet land vertically on a ship is absolutely incredible and such a feat of engineering. On this trip, we had multiple stops, including Charleston and a week in New York just before Christmas.

For me the most significant time was passing my Weapons Charge Qualification. This is this the headmark in the career of any engineering officer in the Royal Navy. It is a two-day exam, in which

A DAY IN THE LIFE OF A WEAPONS ENGINEERING OFFICER

07:00

Wake for breakfast, and check "Daily Orders" (the programme of the day) ready for 08:00 start. I could start as the Duty Systems Engineer for a helicopter-flying or weapons-firing serial. Here, I would brief the Commanding Officer and all relevant personnel on any defects of equipment within my department before proceeding "on watch" for the duration of the serial. If any defects occurred during the serial, I would co-ordinate the repair team and report any loss of capability to the Command.

12:00 -13:15

Lunch.

13:30

Weekly planning meeting to plan the month ahead. I will lead the meeting with the equipment group heads, who report on workforce, equipment state, training and sustainability within the department.

14:30

Check emails and report outcome of planning meeting to the Ops Officer. Do a set of rounds of department to check on personnel and equipment.

16:00

Go to the gym or do circuits.

17:00

Admin, including reporting any defects found.

19:00

Dinner and watch a movie.

your engineering knowledge of the entire ship is tested, along with your leadership abilities, knowledge of your people and of the wider Navy. From here, you can be recommended for promotion and run your own department in the future, as well as become a Chartered Engineer.

Another significant point in my career was on the LRG(X) deployment, in which *HMS Dragon* sailed through the Dardanelles and Bosphorus into the Black Sea in 2020. Here we completed a patrol of the Black Sea, working with Britain's allies and partners in the region to guarantee freedom of movement. We also visited the Port of Odesa in Ukraine, and completed training exercises with their Navy. For me, this is especially significant given the recent events in the area.

In what ways are you a different person today because of what you do?

Because of the time spent away from home, I think I value the relationships with my friends and family far more than I previously did. I am also more aware of the impact, good or bad, that my actions can have on others. Forming good relationships with those you work with is vital for success in any workplace. I think that to be successful in any career, you need to look after your team first, rather than striving for individual success. This team will then support you when you need it, and will benefit you far more in the long run.

How has this experience impacted the decisions you make today?

Through all our time in education studying, we learn that the solution to problems is found by sitting and studying. Through my time in the RN, I have learnt that you should have a good underlying knowledge of your field, but far more importantly you should use the expertise and experience within your team to solve problems. Now when faced with a problem, I get up and talk, ask questions, and learn from experience rather than a book.

What is your number one lesson that you have learned from your experience in this position?

- Get to know the people around you, and always look after your team

What advice would you give to other women considering a career in engineering/the military?

Don't look to stereotypes seen in films and the media; this is often far from the reality. When deciding on a job, look at the job description and go for what you personally find interesting. Try and get placements or experience days and talk to people in post.

For women who wish to have children, I would advise they think early about how to balance this with their careers. Although it is unlawful to discriminate against pregnant women, we have to be realistic that many posts (such as being deployed with the military or working in labs with infectious diseases or radiation in engineering roles) are not safe while pregnant. By planning pregnancy and maternity leave in advance and discussing this with your employer, you will be able to limit the effect this may have on your career progression and future earnings.

Consider whether the company you work for can support working from home or part time, or how their paid maternity packages compare with other companies. The Royal Navy (and across the military) have some of the best maternity packages available as well as many programmes and resources to support families which is invaluable to have.



DID YOU KNOW?

The type 45 destroyer *HMS Dragon* was featured in the spectacular James Bond film, *No Time To Die* (2021).

The *HMS Dragon* is part of the most powerful destroyer class ever built in the UK and one of the most advanced warships in the world. She is equipped with a state-of-the-art air-defence system which will be able to track and destroy a target the size of a cricket ball travelling three times the speed of sound.



HOW DO YOU RESPOND TO THE CHARGE?

Old Blues, parents, friends, and supporters have championed our mission in so many ways. It is only with your help that last year we were able to provide £20 million in bursary support to 678 children from disadvantaged backgrounds, averaging 83% remission of school fees. We are proud that with your help over 90 pupils with the greatest need were offered free school places.

Here you can find out the various ways that you can support our mission further, including supporting our well-known Blue Fund, becoming a Governor and mentoring young Old Blues online through our choba.org website.

Contact us today to find out more about any of the options below:
 Tel: 01403 247588
 Email: development@christs-hospital.org.uk



BUSINESS AND REGIONAL GROUPS



Volunteer your time or premises. There are still lots of areas nationally and internationally requiring volunteers to head up an Old Blue social group. Contact the Old Blues office at oldblues@christs-hospital.org.uk if you would like to discuss this further. If you have a premises that would be able to host a business group meeting or networking event, let us know.

CHObA.ORG



Log into the choba.org website to give valuable advice and mentoring to Old Blues who need it. Use it to reach the right people to advertise new job opportunities, graduate schemes, apprenticeships and more. Visit www.choba.org to get started today.

A GIFT OF EXPERTISE



Through the choba.org website, our senior pupils can contact Old Blues directly for expertise, careers advice, CV and interview technique, and network with people in the industries and professions that they may be interested in for the future. Can you give a gift of expertise today? Why not register at www.choba.org?

BLUE FUND

BLUEFUND
 Support like no other

The Blue Fund invites donors to join forces and, in partnership, fund a full seven year education and boarding at Christ's Hospital. Your gift provides free education at Christ's Hospital for young people from disadvantaged backgrounds with high potential. Donate now: www.christs-hospital.org.uk/support-us/blue-fund

BECOME A GOVERNOR



A donation governorship is a deeply rewarding way for those who feel moved to make a more substantial gift. It enables us to support those pupils who are in the most need and pair them with a governor who can help to guide them. Governors make a significant qualifying donation and are given the opportunity to "present" a pupil to the school.

LEAVE A GIFT IN YOUR WILL



Leaving a gift in your will is a great way to support the School with no cost to you during your lifetime. By leaving a legacy, you could even reduce inheritance tax liability (IHT) for your family. If you leave 10 per cent of your estate to a registered charity, IHT is reduced from 40 per cent to 34 per cent for your beneficiaries.

A GIFT OF SHARES OR PROPERTY



Giving shares or property to CH can be a very tax efficient method of supporting the School. Supporting through this method can provide income tax and capital gains tax relief. This is an excellent way to support the ongoing charitable mission of the School to help us support children for a transformative education here. Contact us today for more information on donating shares or property.

REGULAR GIVING



Many Old Blues enjoy breaking down the cost by making a regular gift by direct debit either monthly, quarterly or annually. You can choose where your gift goes; to the Additional Costs Fund, Blue Fund or Christ's Hospital General Funds. This also gives you the opportunity to apply gift aid to support your donation further.

A SINGLE GIFT



There is also the option to give a single gift to the Additional Costs Fund, Christ's Hospital General Funds or the Chapel Organ Appeal, which is open until April 2023. Donors can sponsor a pipe and leave a dedication that we will host on our website. Go to our donate now page to support: www.christs-hospital.org.uk/support-us/donate-now/

THE CHANGING FACE OF DESIGN AND TECHNOLOGY

Design and technology has evolved over the decades and the Doyle School of Design and Technology is at the cutting edge of technology while maintaining traditional skills.

WITH SPECIAL THANKS TO JACK DOYLE

As one of CH's most significant supporters in recent generations, Jack Doyle (PrepB, MidA 40-48) has had an enormous impact on CH and its pupils through countless Governorships and support for a wide range of projects and programmes. At the centre of Jack and his family's support is the Doyle School of Design and Technology, which celebrates its 15th anniversary this October.

We are enormously grateful for the very generous support from Jack and his family which enabled the transformation of the original Manual School into a highly modernised facility at the cutting edge of teaching and learning. The Doyle School has a dedicated and comprehensive learning space with interconnecting workshops, fabrication space, computing facilities, an upgraded foundry and now a lobby and display area.

Jack and his family have further supported the Doyle School by providing equipment, including multiple 3D printers now showcased in a purpose-built 3D-printing laboratory. They have also funded the Doyle Scholarship in Science and Technology, supporting talented pupils with a passion for the subject.

For centuries, Christ's Hospital has educated generations of professionals involved in engineering, design and technology. Today, the need for such skilled individuals is greater than ever, and we are delighted to be able to offer the facilities and educational resources necessary to release this potential.



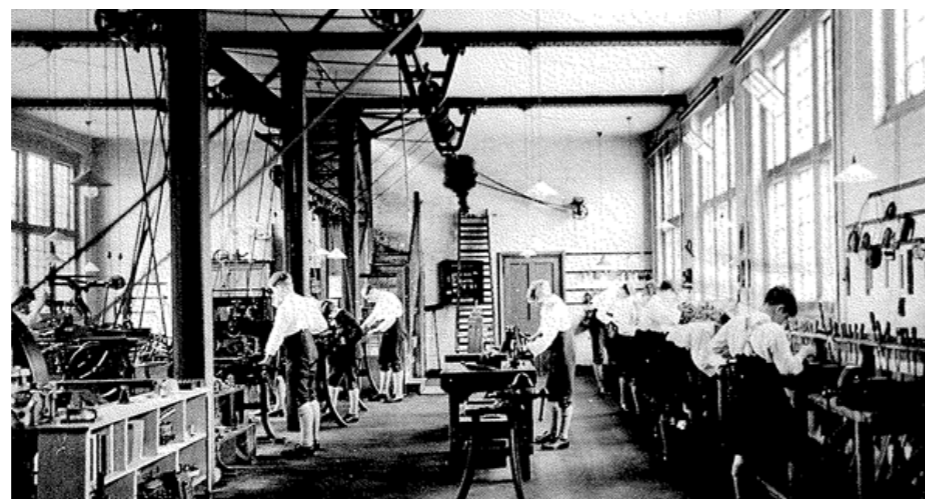
Design and technology has changed so much over recent years, as seen first hand by Paddy Hall-Palmer, Head of The Doyle School of Design and Technology. The Manual Training School, as it was known, was added after the completion of the Horsham site, and, in its earliest iteration, lessons were not afforded the same status as the academic classes taught by the Masters. Staff were not formal teachers and pupils who were assigned to the class received no qualification at the end of it. The School was still impressive, however. Pupils learnt to refine a wide array of practical skills, such as basket weaving, book binding, printing, woodwork, sandcasting and forge work.

Some years later, a teacher was appointed who had a degree. That reflected the academic changes that had taken place over the century, as priorities and technology had evolved and developed. The School continued to evolve and modernise, but under the layers of

remodelling and fresh paint still lies the original structure and fabric of the building that tell the story of what went on in this place in the beginning. Peeling back the layers of modifications, you find the original main forge chimney, the mix of purposefully industrial steel and pine beam structures that allow such high and wide spaces, flooded with essential light, and a foreman's office, which had 360-degree views of the ground floor.

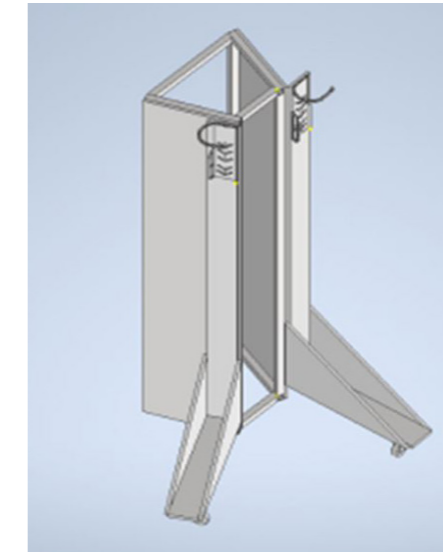
Much of the renovation of the School, the Doyle School of Design and Technology since 2007, is owed to the generous support of Jack Doyle, who has been instrumental in keeping the School completely up to date, with the further support of Andrew Fife. The changes that have been made possible include a new space for an electronics coding laboratory, and, most recently, a 3D-printing laboratory which has proved popular with the pupils.

What the School has really excelled in is balancing and retaining the delivery of those original skills used in the original Manual Training School days, such as wood turning, general woodworking, casting and even some forge work, while simultaneously moving forward with technology. This ensures that pupils have the best in modern education and tools to allow them to excel in fast-paced industry posts. It is a beautiful blend of classic craftsmanship and modern technology, keeping both alive and working together.



AWARD-WINNING GRECIANS

Max, who was awarded the Willcox-Wallis Prize for Science, Technology and Engineering, tells us about his design and technology skills and his dream to become a chartered engineer.



Tell us a bit about yourself

I completed my Grecians year this summer, having joined CH in the LE (Year 9) from a school in Chichester. Next year, I am going to the University of Bristol, to study mechanical engineering.

Tell me about the work that you recently exhibited

The Doyle School's designer-in-residence held an exhibition to showcase items that she had designed in the past two years. In addition, she decided to exhibit some pupils' work, which she hand selected. This was held in the Court Room on Parents' Day; all parents and guests had an opportunity to visit and see the exhibition.

Can you tell me about your exhibition piece and the inspiration behind it?

My piece is a bike-storage product that I designed for my brother, who lives in shared accommodation at university. He has a very narrow hallway, where other students have to store their bikes, which are taking up quite a lot of room. I did some research to discover more about this problem, and I worked out that, despite his hallway being narrow, it is quite tall; so I thought I could make better use of the vertical space to store the bikes, thus having a smaller footprint.

What design methods and technology

did you use to achieve your design?

Initially, there was a large research stage in which I conducted interviews with my brother. I asked him to carry out some primary research for me, which consisted of taking measurements and photos, so that I had an idea of how big the space was that I was working with. Then, I did some research and measured a lot of different bikes to try to work out some average dimensions. Once I had all that data, I used a mixture of hand-drawn and computer-aided design to make the models on the computer. That allowed me to see it in 3D at an accurate scale; and I could also add materials.

I did some more research into the best materials to use and joining methods, to establish what I was going to use. That helped me to identify the strongest materials and those that had the ideal properties. When it came to manufacturing, I used a lot of different techniques. I hand cut the metal frame and welded it together. Welding was quite fun, a bit scary, but good to try. Then I cleaned and spray painted it. The wooden parts were cut on the band saw and assembled with biscuit joints and finally hand varnished.

What ultimately do you want to do with your engineering skills and what are the plans for the future?

My course at Bristol is an Integrated Master's in mechanical engineering.

Hopefully, after completing that, I can go on to become a chartered engineer, and that, I hope, will open things up for me. I don't know exactly what field I want to go into yet; but I am drawn towards sustainable engineering.

What is it about engineering that has sparked your interest?

I have always been interested in creating things and using my hands. I played with Lego non-stop when I was younger, and I loved building and using my imagination. Then, at my old school, I started doing DT and I fell in love with it from the beginning. I really like the sense of achievement as my project comes to life and unfolds.

What advice would you give to others that are interested in engineering?

My advice to anyone who is interested would be to take DT. I think it gives you a lot of practical skills. The whole coursework side of things really does help you to understand the design process and all the specific things that you need to go through in order to create the best design possible. Now that I have done that, I have a much deeper understanding of what I need to go through to design a successful project and engineer a solution to a challenge.

AWARD-WINNING GRECIANS

Chi Udokporo (MaB,GrE 15-22) was awarded the Barclay Hankin Prize. Here, Chi shares his ambitions with us.

Tell me a bit about yourself

I joined CH in the Second Form, in Maine B, and I left Grecians East this summer. CH was very different from my hometown of Edmonton, in north London; but I knew about the School because my siblings came here ahead of me. Since day one, I really enjoyed taking part in lots of sport and music. I was a drummer before I joined CH; so I was really excited to learn that I could continue that here.

I had a bit of a culture shock moving from Edmonton to the Sussex countryside. The smell of the farmers' spraying the fields was the first shock to hit me! It was nice, though, to have some space and land on site to run around and enjoy the fresh healthy air.

You recently exhibited a Design Technology project. Can you tell me about it?

I exhibited my A-level DT project at the designer-in-residence's exhibition this summer. It was a real privilege, because the artist handpicked only a few pupils to exhibit alongside her. I started designing my project during the pandemic, spurred on by a problem that millions of people faced from having to work from home for the first time. I wanted to find a solution for people who needed the desk space in small homes. I decided to produce a desk that could be foldable with an extendable tabletop, so that it could be packed away. A secondary issue that I uncovered from my research was that most people end up sitting for so many hours without breaks. Of course, increased activity is beneficial for productivity and health; so, to go further, I wanted to engineer it in such a way that it could be used as a standing desk or a sitting desk. Trying to combine all these aspects was a lot harder than I thought it would be; but it turned out well and I am really pleased with it.

Was there a person behind your inspiration?

My inspiration behind the piece was very close to home. In fact, it was my mum. She needed a solution to the problem of trying to work from home for the first time. She is a teacher and was trying to continue working through the pandemic

remotely, but didn't have a suitable set-up at home to do it comfortably. I hoped that I might be able to produce something that she could use to make life a bit easier.

What design methods and technology did you use to achieve your design?

Once I decided that the multifunctional table was what I wanted to progress with, I went to furniture stores to conduct some research. I had seen one of those dining tables that extends so that it could go from seating four people to six people, and I wanted to look into the design of it. There were lots of different mechanisms that I could have used. Some were overcomplicated and some were ineffective for the scale of table that I wanted to make; I drew some inspiration from those. When it came to making the tabletop collapsible, there wasn't actually anything existing that I could find to help it do what I wanted it to do; so I had to be completely innovative and original with my design.

I used a plasma cutter and 3D printer to make a series of different prototypes. Having the 3D printer and modelling foam enabled me to create rapid prototypes to ensure that my idea and model would work. This enabled me to adapt it until I reached my final design. In terms of height adjustability, my original plan didn't come to fruition as I hoped, because of some constraints that were outside of my control. I looked at hydraulics and some other types of adjustability, but they were too expensive.

My final solution was inspired by crutches and the way that they can telescopically extend manually. I was able to use this method and make it more ergonomically friendly. I went through a series of designs and then used CAD (computer-aided design) to simulate it and ensure that it would work flawlessly. I then moved on to prototyping with cardboard, then foam and then using the actual materials. The final piece tested my resilience as I had to drill 14 perfectly identical holes on either side meticulously measured, but it worked.

My favourite part of the design process was 3D printing. We were really lucky to

be gifted two new 3D printers this year at School, and they have helped so much in the prototyping phase. They work by printing in layers with two types of material, a type of nylon and a type of PVA which fills the hollow spaces, and this acts a support while printing the shape. Once complete, the PVA is dissolvable in water, leaving a perfect structure. I also enjoyed designing using CAD. I was apprehensive at first, but once I got into it, it was really fun and great to visualise the work in 3D. Seeing what I had designed in CAD come to life was so satisfying.

What ultimately do you want to do with your engineering skills and what are the plans for the future?

When I was very young, I wanted nothing more than to be an architect; but I soon discovered that I didn't feel as passionate about the aesthetic drawing. I learnt that I gained more from looking at the function over form: I prefer to think about how a mechanism will work effectively and be as functional as possible. That made me realise that architecture was not for me. From that point, I knew that engineering was my passion. I always enjoyed drawing parts of machinery and seeing how pieces fitted and worked together to create a function; the technical side of it held my focus. My driving goal has always been to produce things that work and perform well.

I am going on to study mechanical engineering at the University of Birmingham. It will be a five-year course, as I hope to do a Master's and spend a year in industry to get the experience under my belt. I hope that this will put me in good stead for a great career in the future.

What advice would you give to anyone else that is interested in engineering.

My advice to anyone who is interested in engineering would be to join engineering actives as early as possible; so if you are at school, look for clubs and actives to participate in. I joined a practical-engineering active and it was my first introduction to engineering here at CH. It was really hands-on, and it definitely sparked my interest. I would also recommend pupils at CH to apply for



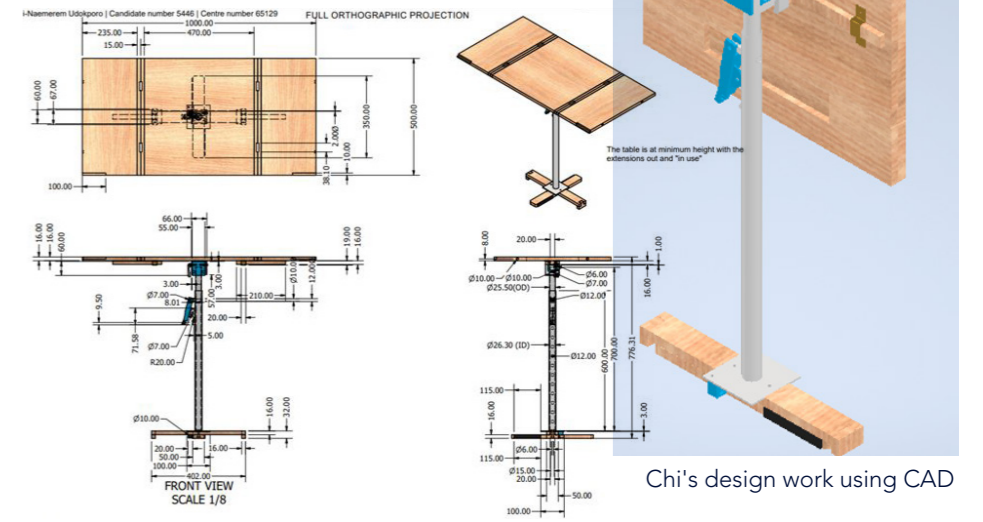
Chi Udokporo was awarded the Barclay Hankin Prize.

the Arkwright Scholarship. I applied for it, and although I didn't get it, even the application was beneficial: it forces you to think in creative ways and it really helps you to start thinking as an engineer and as a designer. In terms of subjects, I would say mathematics and physics need to be solid, and absolutely take design and technology to explore the creativity where mathematics and physics don't allow as much.

What are you looking forward to the most in this next step becoming an Old Blue?

In my eyes, my journey as an Old Blue has already started — the facilities in the department have been funded by an Old Blue, and I have already reaped the benefits of someone else's generosity. I would love to stay in touch with the Old Blue community and find some work experience when I am at university. I would love to get some valuable advice, because there is still so much that I am not sure on, and learning from someone who has walked the road ahead of me

could make a big difference to my future. I would like to give back to the School and help in the way that it has helped me; so it would be really nice to be able to do for the younger pupils what has been done for me here, be it contributing towards funding or bursaries or facilities, or mentoring in the future.



Chi's design work using CAD

MUSIC TO OUR EARS, THANK YOU

CH's beloved Chapel organ has been undergoing a full restoration and Old Blues from around the world have wowed us once again by offering their support. We are so grateful to all those who have made a donation to sponsor a pipe, thank you. There is still time to be involved: sponsorship is open until April 2023.



£ 120,888
RAISED
TOWARDS THE
RESTORATION



149 ORGAN
PIPES
SPONSORED



176
DONORS
CONTRIBUTED



900 PUPILS'
LIVES IMPACTED
BY YOUR
DONATION



Use your smartphone camera to scan and donate safely online here

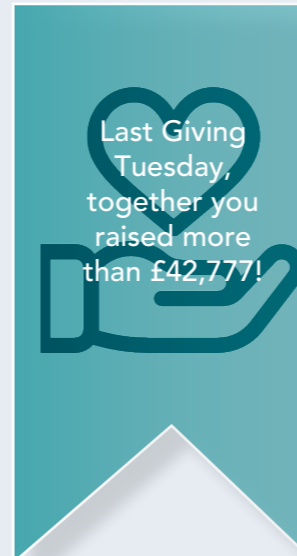
image: Flaticon.com

#GIVINGTUESDAY

SAVE THE DATE

Tuesday 29 November 2022

With the cost of living and winter fuel costs spiralling, inequality is becoming even greater. Our families need your support this Giving Tuesday. This year's fundraising focus will be supporting the important Additional Costs Fund again, to help our most disadvantaged pupils and their families, who now more than ever need extra support to cover the additional costs of life at CH. Will you help?



WHAT IS GIVING TUESDAY?

Giving Tuesday is a global day focused on charitable giving. On Tuesday 30 November 2021, the CH community came together to celebrate this special day, and once again our community did not disappoint.

Last year, we chose to raise funds for the Additional Costs Fund to support those in exceptional financial need. This helps towards travel costs, house funds, school trips, sports uniform and other basic additional costs that families otherwise may not be able to afford.

Thank you to all the Old Blues, parents, and friends who made Giving Tuesday a tremendous success. We are delighted to let you know that more than 130 of our incredible CH community came together to support the Additional Costs Fund.

Your generosity meant that CH can help more of our most disadvantaged pupils and their families, who sometimes need extra help to cover additional costs. To all our donors, thank you. We really couldn't have done this without you. Thank you again from everyone at CH!

THREE WAYS TO GET INVOLVED

Give a gift of any size at www.christs-hospital.org.uk/support-us

Spread the word to involve friends and family

Like and share our posts on social media @chousey

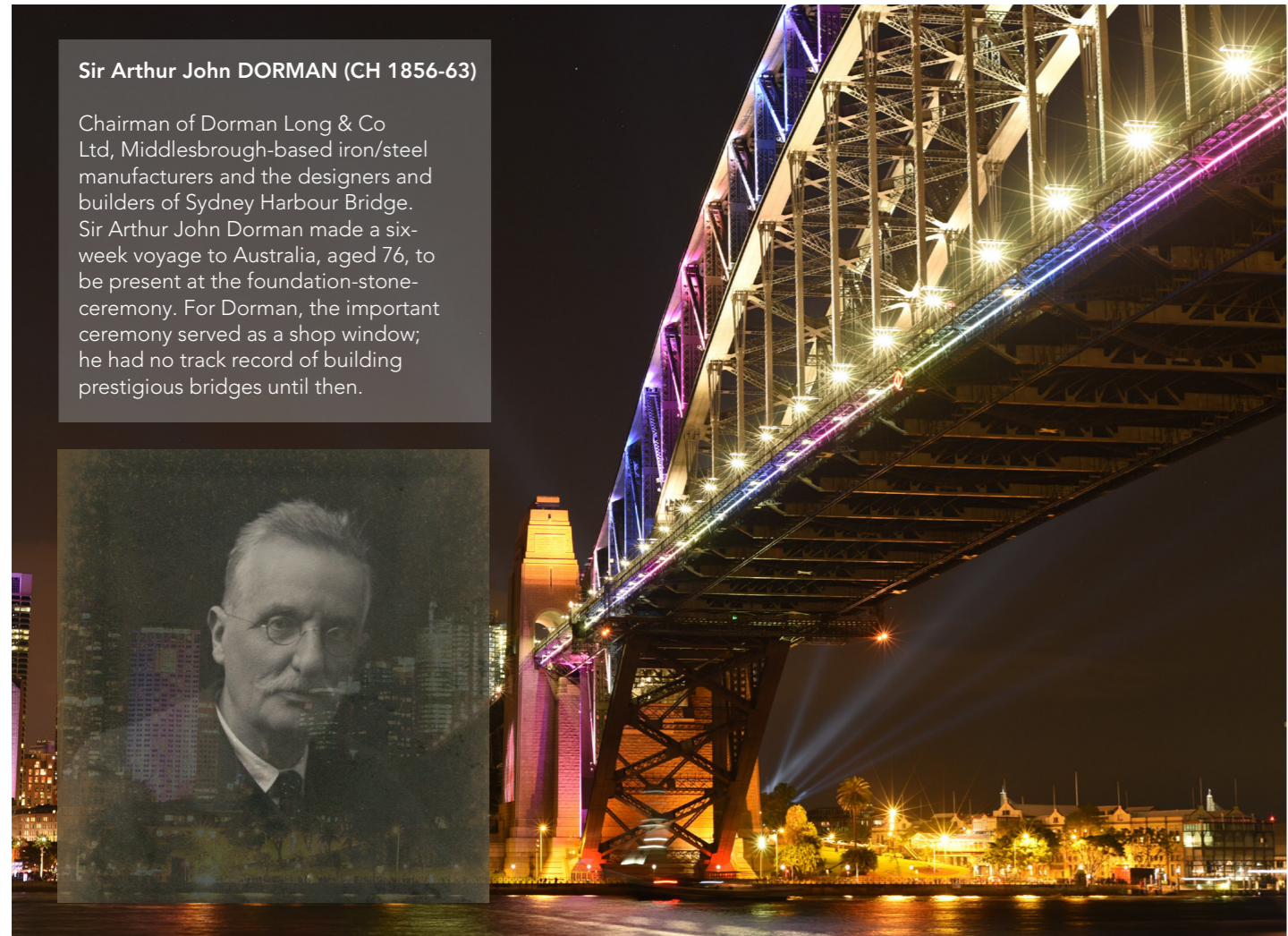
LOOK OUT FOR MORE
DETAILS COMING SOON
ON EMAIL AND
SOCIAL MEDIA



ENGINEERS THROUGH THE YEARS

It is not clear when engineering first entered into the language at Christ's Hospital. Pupils of the Victorian era were recorded as going into engineering or engineering studentships. A particular reference to engineering appeared in the minutes of the School's executive body, the Committee of Almoners, in 1868, when CH accepted an offer from the Council of Education of an exhibition whose purpose was to improve the promotion of engineering knowledge. Later, civil engineering was part of the syllabus following the Scheme of Administration in 1890.

Perhaps the main event at CH for the advancement of engineering was the construction of the Manual School (now the Doyle School of Design and Technology) in 1909. The concept of the Engineering Grecian came into being during the tenure of its first Head of department, Tom Usherwood (1909-34). On these pages, we celebrate and remember the names and biographical details of a handful of notable Old Blues who have added to the rich tapestry of CH's engineering history. They all worked in engineering and made an outstanding contribution to the world we live in and enjoy today.



Sir Arthur John DORMAN (CH 1856-63)

Chairman of Dorman Long & Co Ltd, Middlesbrough-based iron/steel manufacturers and the designers and builders of Sydney Harbour Bridge. Sir Arthur John Dorman made a six-week voyage to Australia, aged 76, to be present at the foundation-stone-ceremony. For Dorman, the important ceremony served as a shop window; he had no track record of building prestigious bridges until then.



Explore Christ's Hospital Museum. We are open.

Our extensive collections of more than 100,000 artefacts span the 470 years of the School's history in London, Hertford and Horsham's. Our archives hold the records of over 67,000 pupils.

The museum has been undergoing refurbishment over the last year and we aim to have this completed by Spring 2023. We thank you for your patience if we are delayed in responding to enquiries.

The museum is open Tuesday and Thursday
10am - 4pm by appointment only

Please email enquiries to:
chmuseum@christs-hospital.org.uk



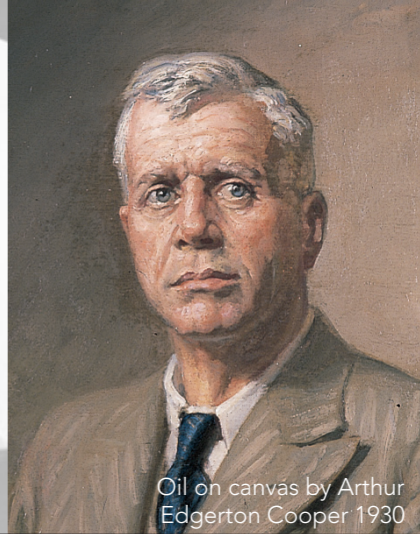
Left: A specimen of the geodetic structure from the port lower fuselage of a Vickers Wellington bomber N2980 designed by Barnes Wallis. The plane crashed in Loch Ness in 1940 and was recovered in 1985, before being restored at the Brooklands Museum who presented this fragment to Christ's Hospital.

Specimen of Barnes Wallis' designed geodetic structure from port lower fuselage side of Loch Ness Vickers Wellington N2980.

Recovered from Loch Ness in Scotland.

On New Year's Eve in 1940, this Wellington was caught in a snow storm and one engine cut. The captain saved all but one of the crew – sadly the rear gunner's parachute failed to open and he was killed.

The aircraft, used during the first bombing raid on Germany in 1939, was recovered in September 1985.



Oil on canvas by Arthur Edgerton Cooper 1930

Sir Barnes Neville WALLIS (CH 1900-04)

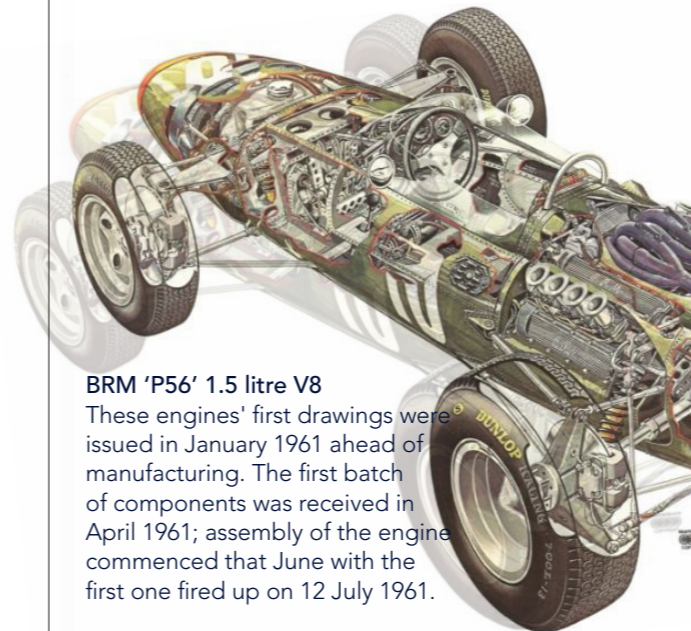
Scientist, engineer and inventor at Vickers (later part of Vickers-Armstrongs and then part of the British Aircraft Corporation). He played a major part in the development of the R100 Airship and Wellington Bomber, and invented the "bouncing bomb". He was one of the greatest ever creative engineers in the aviation industry. Alongside being an FRS, FRAeS, RDI and CBE, he was Treasurer of and a major benefactor to CH.

Wallis was awarded £10,000 for his war work from the Royal Commission on Awards to Inventors. His grief at the loss of so many airmen and German civilians in the Dambusters Raid was such that he donated the entire sum to Christ's Hospital, in 1951. This allowed CH to set up the RAF Foundationalers' Trust, enabling the children of RAF personnel killed or injured in action to attend the school.

Peter Lorraine Ashton BERTHON (CH 1916-23)

Designer of racing cars and engines, and co-founder of English Racing Automobiles.

Berthon was the Co-Designer and Head of Design of the British Racing Motors' racing car, with his V8 engine, which won the 1962 World Championship for BRM and Graham Hill.



BRM 'P56' 1.5 litre V8

These engines' first drawings were issued in January 1961 ahead of manufacturing. The first batch of components was received in April 1961; assembly of the engine commenced that June with the first one fired up on 12 July 1961.



Watercolour by H Arthur Rigby (Harold Ainsworth Rigby ARCA (1879-1938))

EVENTS

A look back at events past

OLD BLUES' DAY



Thanks to all the Old Blues, families and friends who joined us for our Platinum Jubilee Old Blues' Day in May. The weather was glorious, and visitors were able to enjoy the famous band parade, giant lawn games, a royal raffle, photo booth, boarding house tours and much more. See if you can spot yourself in our photos from the day here:

www.choba.org/photos-albums

OLD BLUES' SUMMER VISIT



More than 200 people registered to visit us at Christ's Hospital for this year's summer open day. Despite the rail strikes, we welcomed a good number of Old Blues with their families and friends to the School, on a beautiful sunny day. We even had a visit from the Old Blues' Rugby team before they headed into Horsham to play a late-afternoon match against Haywards Heath!

DATES FOR YOUR DIARY

Old Blue Events

CH Heritage Day — Fri 28 October
CHoba Carol Concert, The Church of St Stephen Walbrook, London — Thurs 15 December

Reunion dates
Fri 14 October — 5-years-on reunion for leavers of 15, 16, 17, London
Sat 26 November – 10-years-on reunion for leavers of 10, 11, 12, Horsham
Wed 22 March - 50 years on reunion for leavers of 72 and 73 - Horsham
Wed 26 April - 60 years on reunion for leavers of 62 and 63 - Horsham
Sat 20 May - Old Blues Day

Old Blue Tours
 Bookable escorted site visits and afternoon tea during term time for Old Blues.
Mon 23 January 2023
Mon 20 February 2023
Mon 20 March 2023

Please note: owing to possible changes to school term dates and leave weekends and other factors outside of our control, all reunion and event dates are provisional until official invites have been issued.

Christ's Hospital Theatre

The CH Theatre continues to welcome back live audiences. Keep an eye for shows, musical performances and comedy evenings.

Tickets available to purchase online.



christshospitaltheatre.savoyssystems.co.uk/Christ'sHospitalTheatre.dll/

CHoba CAROL CONCERT 2022

CHoba invites you to an evening of Christmas carols, mince pies and mulled wine.

Date: 15 December 2022
 Time: 6pm

Hosting: Dr Andrew Wines (Assistant Head)

Place: The Church of St Stephen Walbrook,
 39 Walbrook,
 London, EC4N 8BN

Conductor: Ed Jones (Assistant Director of Music)

Organist: Bridget West
 (7s, ColB 84-91)

For Old Blues who wish to sing in the choir, rehearsal begins at 4.00pm.

Adults (including choir members): £7.00
 Children aged 12 years and under: £4.00

This year's retiring collection will be in aid of the Additional Cost Funds.
 Tickets are available to purchase online at www.choba.org/event or by completing the below booking slip and returning it with a cheque to the CHoba office.

<https://ststephenwalbrook.net/gallery/>

CHoba Carol Concert Booking Form

Please return this form to the CHoba office to register your place.

Name.....
 Address.....
 Email.....
 Phone No.....

Ticket Type	Quantity
Adult (£7.00)	
Child (£4.00)	
TOTAL	

I / We would like to sing in the Old Blue Choir and will arrive at the church at 4pm to attend rehearsal (please tick)

- I enclose a cheque made payable to Christ's Hospital for £.....

- Please debit my Credit / Debit card for the sum of £.....

Card Number / / Expiry Date / CCV

Please return to CHoba, The Counting House, Christ's Hospital, West Sussex RH13 0YP

Please note: We may take photographs at events and reunions. These could be used on our website, social media pages or for CHoba publicity. If you, or a member of your party, do not wish to be photographed during an event please make a member of staff aware on your arrival. If you wish for any photos used online to be removed after the event please let us know. Bookings are made in agreement with our event booking terms and conditions, details of which can be found at www.christs-hospital.org.uk/old-blues/events

OLD BLUES' UPDATES

WEDDING BELLS

Congratulations to the Revd Bruce Lyons (ThA 49-54) and Audrey Lee (8s 49-55) who are to be married on 1 November in Bristol.

Bruce and Audrey began written correspondence with each other in 1953!

We wish them all the very best on their special day and wish them a lifetime of happiness together.



SHOP



Don't forget, memorabilia items are available from our online shop. Items include a range of nostalgia-inducing gifts including:

CH shield cufflinks, lapel pins, greetings cards, keychains, ties and water bottles. Limited exclusive items are available to purchase, such as silverware dating back to 1844 that was acquired for the public supper with Queen Victoria and Prince Albert in March 1845.

Shop here
portal.christs-hospital.org.uk/
portal/public/shop/

SHARE YOUR NEWS TODAY!

Email us at oldblues@christs-hospital.org.uk or join the conversation on Twitter and Facebook @CHOldBlues

CHObA: REGIONAL

To see what's happening in your area for Old Blues and receive updates of upcoming meetings you can join the relevant Old Blues group on the CHObA website. If there is not a group in your area and you would be interested in forming a new one, please get in touch with the CHObA office.
Email: oldblues@christs-hospital.org.uk
Tel: 01403 247619

CHObA Business Groups

Old Blues LinkedIn Group — contact via LinkedIn.com
Old Blues Legal Group — contact via LinkedIn.com
Old Blues Finance Group — contact via LinkedIn.com or Facebook.com
Old Blues Engineering Group — contact via LinkedIn.com or Facebook.com
Old Blues Entrepreneurs Network — contact via choba.org or LinkedIn

CHObA: EVENTS

Oxfordshire Old Blues Founders Day Dinner

Founder's Day Lunch to be held, as last year, at The Perch in Binsey (OX2 0NG), on Saturday 29 October from midday. Please let us know if you plan to come to the Founder's Day Lunch, so that we can get an idea of likely numbers by emailing Tom Hardy on Tomrw.hardy@btinternet.com.

Hereford and Gloucester Old Blues Brunch

The Autumn Brunch will be on Saturday 29 October 2022 at 10:30 at The Air Balloon, Birdlip Gloucester GL4 8JY. Please contact organiser, Richard Asghar-Sandys to register your interest in attending at richardas@coachlogistics.com

CHAIR OF THE CHObA BOARD

I write this during the incredible heat of in mid-July, where records were broken and we all got a glimpse into the future of how things may be. But for me, this is the end of my time as Chair and this will be my last message in that post.

When I applied to join the CHObA Board, my intention was to help out by giving my time and trying to help to build engagement with more of you, regardless of the stage of life you're in, where you might be in the world, or how you experienced CH when you were there.

It's been a fascinating journey, and one that I've enjoyed immensely. There have been challenges, there have been celebrations and I'd like to thank my fellow Board members for the hard work that they have done to build connections with you, the School and Development Office, as well as the Council. I hope that those connections will foster stronger

relationships and lead to a better understanding of the needs of the Old Blue community, so that we are more able to support each other when opportunities arise.

One area I hope to see go from strength to strength is the collaboration between the CHObA Equity, Diversity and Inclusion working group — made up of members of the Board and Old Blues — and the School. There have been some brave steps taken by the School — particularly the lengths they are going to listen to pupils' ideas and concerns — and, by engaging with CHObA, they will also be able to include the feedback of past pupils' experience. As the School evolves, it's invaluable for Old Blues to be able to understand how it is changing and what it is like at the School today.

On a personal note, I feel very privileged to have been able to spend more time

at the School and to hear first hand from Simon (Reid) and Nick (Tesseyman) how the School has coped with COVID-19, the plans for the future, and how things are going in general. I'd like to thank them, as well as Hugo and Gina and everyone else from the Development Office for the huge support they've given me and the Board. So as I pass on the baton, I look forward to the future of CHObA and to seeing you all at future events.



Introducing the new Chair



Chris Thomas is the new Chair of the CHObA board.

Chris has maintained a close relationship with the School and the Old Blue community since leaving in 2001. When he's not running around after his two daughters, Annabelle and Eva, or the dogs he can be found messing about with cars with other Old Blues who make up the Old Blues Automobile Club

REMEMBERING

Christ's Hospital extends sincere condolences to the friends and families of those listed below who have recently passed away.

Her Majesty Queen Elizabeth II, Patron of our Religious, Royal and Ancient Foundation
Anthony Arblaster ThB 48-56
Robert Ashe ThA 66-70
Eric Beauchamp CoLA 38-44
John Bell PrepA, CoLA 41-47
Jane Birkett 5s, 4s 49-57
Terence Boxall CoLA 38-45
Grant Bruton ThA 48-49
Betty Caiger (née Smith) 8s 30-35
Alastair Chalmers BaB 45-51
Derek Chislett LaB 40-46
Anthony Cork MaA 46-53
Gerald Dear PrepA, ThB 37-44
David Epps MaA 46-52
John Farrant MaB, BaA 56-64
Donald Fraser PeB 38-44
Terence French PeA 43-51
Raymond Gregory PeB 45-51
Joselen Heron (née Ransome) 8s 35-43
Jonathan Hill MaA, ThB 74-81

Valerie Hill (née Skinner) 44-52
Phyllis Hoffman 1s, 3s 49-56
David Horne PeA 50-57
Henry Huggins PeA 41-48
Paul Koronka PeA 66-71
Peter Lee LaB 36-44
(Birgitta) Mary Maniez (née Deane) 1s, 4s 48-55
Peter Martin LaA 62-70
Anne Melville (née MacWilliam) 4s 59-65
(Philip) Alan Naylor PrepB, ThB 46-53
Geoffrey Otton PeA 39-45
Peter Padfield ThA 41-48
Timothy Parsons PrepB, BaB 42-49
Anthony Peters LaA 47-53
Brian Polley CoLB 44-53
(Margaret) Thea Prentice 5s, 6s 47-55
Richard Poulton Headmaster 87-96
Jeremy Read ThB 44-51
Anthony Roberts LaA 40-46
Peter Rudolf CoLB 44-53
Clive Simpson MaA 39-47

Paul Spragg PrepB, Mda 35-42
Christopher Springford MdB 50-57
Roger Steggals ThA 54-60
Edward Strange PeA 49-55
David Taplin LaB 50-57
Elizabeth Tchobanian (née Irvine) 7s 47-53
Geoffrey Thomas PrepA, Mda 49-57
Christine Welch 7s 54-62
Roger Wickins BaA 49-54
Philip Willenbrock LaB 52-61
Peter Wornell PrepB, LaB 45-52
Frederic Wrigley PrepA, CoLB 35-42
(Elisabeth) Virginia Youdale 1s, 8s 38-46
Edward Young BaA 47-55

Old Blue Memories

If you would like to let us know of an Old Blue's recent death, please contact: oldblues@christs-hospital.org.uk

BETTER TOGETHER

Whether you're an Old Blue, a parent or a supporter of CH, there are many ways to keep in touch and get involved. We've made it easier than ever, simply use your smartphone to scan the QR codes below.

KEEP IN TOUCH

Keep your details up-to-date to receive the latest news, invitations and publications.



oldblues@christs-hospital.org.uk

JOIN OUR NETWORK

Join your local Old Blue community or business group to network and attend events with other Old Blues.



choba.org/groups

FIND YOUR FRIENDS

Our Old Blue online directory helps you to connect with fellow Old Blues or reconnect.



choba.org/directory

GET INVOLVED

Come back to CH to give a talk, join our careers network to offer advice to pupils and Old Blues or help organise events.



oldblues@christs-hospital.org.uk

MAKE A GIFT

Donations of all sizes offer more young people the life-changing opportunity of a CH education.



christs-hospital.org.uk/support-us/donate-now/

CATCH UP

You can catch up on previous virtual Old Blue talks, we keep them listed on our YouTube page.



youtube.com

STAY CONNECTED

T: +44 (0)1403 247619

E: oldblues@christs-hospital.org.uk

W: choba.org | christs-hospital.org.uk

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Registered Charity Number 306975



Christ's Hospital Old Blues' Association



@CHOldBlues



Christ's Hospital Old Blues



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(7s, ColB 84-91)

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