

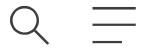
from our alumni

Friday 3 January 2025

St Catharine's is fortunate to have a growing number of alumni who are active on issues relating to environmental sustainability: from individuals who have distinguished themselves as leaders in their field, to more recent graduates who are already starting to make their mark. As the College implements **a roadmap to net zero carbon emissions by 2040**, we spoke to some of these alumni about what they make of our progress and their advice for current students who may be considering careers that address climate change.

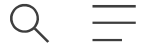
This article is the third in a series to feature insights from St Catharine's alumni: **the first article was published in November** and **the second in December**. Thank you to all of our alumni who agreed to be featured – if you would like to contribute to future articles, please contact comms@caths.cam.ac.uk.

**Oliver Smith (1976, Architecture),
Director of 5th Studio**



Since graduating in 1979, Oliver has combined architectural practice with research, developing a critical approach to sustainable construction and to the adaptation of existing fabric. He founded 5th Studio in 1997 and now has a team of 25 architects working on a range of estate masterplanning, transport infrastructure planning, decarbonisation strategies and retrofit projects. He is kindly providing *pro-bono* advice to St Catharine's on the College's decarbonisation plans.

He commented, *"It is imperative for us all to reduce the energy consumption from our built environment given that 40% of UK carbon emissions arise from the construction and occupation of our homes, workplaces and institutions like colleges. This is not rocket-science – the materials and technologies are tried and tested! We know how to do this and have proved that it is possible in the most sensitive, historic and listed buildings."*

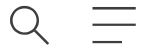


“The College has made a brave commitment to work towards net zero by 2040. As community, we just need the will and commitment to support them as well as doing the right thing in our own homes!

“I would encourage Catz students to follow whatever broad career path most appeals to you – the thing that is most like ‘passion’ and least like ‘work’ – and then to seek out the part of that role that can have the greatest impact on climate and biodiversity and really get stuck into it so that you can make a significant, even heroic, difference.

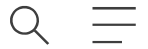
“The inescapable need to address the climate and biodiversity emergency impacts every area of work, requiring development of ‘green finance’ tools, the design of low-carbon cities and new materials (such as Cambridge Electric Concrete) and – perhaps most critically – the development of thought leadership and all the political and advocacy tools that are needed to drive meaningful and funded political commitment to deliver net zero emissions.”

**Josh McTigue (2008, Engineering),
Senior Research Engineer, National
Renewable Energy Laboratory**



After his undergraduate degree in Mechanical Engineering at St Catharine's, Josh continued his studies here and completed a PhD in thermal energy storage. He then joined the National Renewable Energy Laboratory (NREL) in Colorado, USA, and has since worked on energy storage, geothermal, concentrating solar thermal, and desalination. He is now a senior research engineer at NREL, with a focus on techno-economic models and policy implications associated with long-duration energy storage systems.

Josh said, *“Achieving net zero emissions by 2040 requires decarbonisation of many industries: electricity, heating and cooling, transport, food, chemical products etc. It can appear to be a costly and insurmountable challenge; but it is*

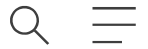


actually an exciting opportunity to make lasting positive changes to our energy systems in a fair and equitable manner. The cost of doing nothing outweighs the cost of change.

“The energy transition will impact every aspect of our lives and requires contributions from all disciplines, not just science and engineering but also social sciences and law, economics and policy, and arts and culture, which can be powerful tools to inspire and inform. Whatever your skills and interests, you can find a meaningful and exciting role in the energy transition.”

Asya Ostrovsky (2020, Geography),
Sustainability Content Specialist,
Curation Corp

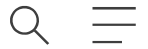




While an undergraduate at St Catharine's, Asya served as Ethical and Environmental Officer on the JCR Committee (introducing a circular kitchenware reuse scheme and composting trial) and interned as a sustainability consultant at Junxion Strategy in London. After graduation, she worked with Peru Equidad on indigenous-led conservation fieldwork in the Peruvian Amazon. Now back in the UK, she is a Sustainability Content Specialist at Curation Corp, researching and writing tailored newsletters to keep clients across various industries informed on key environmental developments.

Asya commented, "It's inspiring to see such a holistic and well-thought-through approach in the Catz net zero roadmap, encompassing waste, transport and construction. From replacing gas boilers with air-source heat pumps to installing solar panels and reducing single-use plastics, the College is nurturing a more sustainable community while setting a powerful example for others."

"It's exciting to see this commitment to innovation and the future, and the whole community working together to make it happen. As an institution, I feel Cambridge has an outsized responsibility to lead by example. Every effort counts—let's keep the momentum strong and continue to champion these impactful changes!"

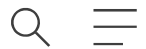


“I feel environmental issues must be tackled from many angles – professional, legislative, activist –and at all possible scales from local to global. There are so many areas and types of work that can contribute to planetary health, so I would encourage students to choose an avenue that excites them and where their skills lie. We need all hands on deck! Students are more than welcome to reach out to me for further advice.”

Pearl Ayem (2021, Polar Studies),
Senior Climate Modeller, Sillion



While Pearl began as a physical climate researcher, her passion is helping organisations navigate sustainability challenges. She is currently a Senior Climate Modeller at Sillion, developing climate risk models for global clients to support their net-zero strategies. She has collaborated with leaders such as President Emmanuel Macron of France, Michael

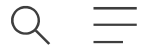


R. Bloomberg, as well as the UN and several governments, to launch the Net-Zero Data Public Utility. She has also contributed to COP27 and COP28 programmes, working with Mark Carney and his Glasgow Financial Alliance for Net Zero initiatives to embed sustainability reporting into financial systems.

Pearl explained, *“As the College works towards the ambitious goal of achieving net zero emissions by 2040, I believe that every action – no matter how small – plays a crucial part in this global movement. St Catharine’s is a community built on shared values and, by leveraging our collective knowledge and commitment, we can lead the way in creating a sustainable future. Catz has always been one to stand out and punch above our weight, so I encourage everyone to view this journey as both a challenge and an opportunity to innovate, collaborate, and set a winning path for the future of the Catz community.*

“For those aspiring to work in sustainability, my advice is to combine your passion with practical skills. Gaining technical expertise in areas such as data science, environmental policy and climate risk modelling opened many doors for me. It's a fast-growing field and I encourage you to take risks, build connections across different sectors, and always look at the big picture –

sustainability is an evolving challenge that requires diverse perspectives and approaches."



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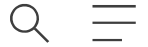
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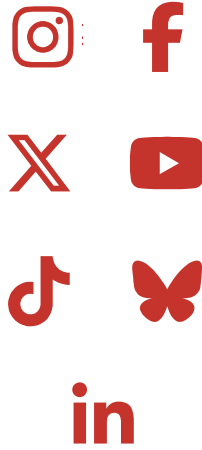
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