

Letter from the Editor



This is a special issue of our Newsletter, devoted exclusively to two items.

We start with sad news, the death of our founder Geoff Wain, and end with the good news about our new initiative, **MathsWorld**. However, Geoff himself and **MathsWorld** both in their own way are a cause of celebration.

Below, we present an illustrated portrait of Geoff's life and work. We also outline our proposed expansion from our current MathsCity in Leeds to a new and bigger MathsCity in London. From now on these will be designated by the working titles **MathsCity, Leeds** and **MathsWorld**, but these might change with

time. For a while we expect these two centres to coexist, thereby creating separate audiences in two distinct areas of England.

It is ironic that Geoff, who first had the grand vision for the National Mathematics Discovery Centre for the United Kingdom – did not live quite long enough to witness our acquisition and launch of **MathsWorld** as the penultimate push towards our goal of a real, live National Mathematics Discovery Centre.

The developments to **MathsCity** have proved possible through the generous donations of several financial backers, acknowledged at the end of this Newsletter.

We hope that over the next few years you, our readers and supporters, will share our excitement as we move steadily towards the creation and opening of the National Mathematics Discovery Centre. We look forward to your continuing support, help and enthusiasm.

Jack abramsky

Jack Abramsky



Geoffrey Wain



It is with great sadness that we report the death of our founder, Geoff Wain, at the age of 91.

Geoff was a polymath, who had a vision for mathematics. Having spent much of his working life teaching first in schools and then in university departments of Mathematics Education in the UK, in South-East Asia and in Africa, he wanted to greatly improve the public understanding and popularisation of mathematics. He wrote, *"The fact that so much teaching of mathematics around the world is dull and not really about anything significant, does not mean that that is how it should be. Typically, children study some mathematics every day for about eleven years of schooling. If the outcome is dislike of the subject, that is a tragedy and a dreadful comment on the way the subject is presented". What could be done to improve this unsatisfactory situation?*

As Secretary of Joint Mathematical Council of the United Kingdom (1981-1986), Geoff helped set up a committee funded by the Nuffield Foundation to investigate this problem, and he himself chaired the committee. At the time he was a Senior Lecturer in the Department of Science and Mathematics Education in The University of Leeds. From the outcomes of the Committee's recommendations arose the idea that The University of Leeds should host what became known as The Pop Maths Roadshow; the show would start out in Leeds and then travel around the UK. As Geoff wrote in our Newsletter Number 10, "The hope was to provide an example of what might go into a permanent interactive mathematics centre (editor's italics) and to attract funding to bring it about. Professor David Crighton of Cambridge University and I established a committee to organise the Roadshow, and we were fortunate to receive secretarial and management support from the Royal Society." The Roadshow was launched at the University of Leeds in September 1989.





The Roadshow attracted over a quarter of a million visitors in the year it was traversing Britain. Each of the venues added its own input to the fixed core of this 'travelling circus', as one of Geoff's close friends called it. Alas, although the show proved very popular with visitors, it failed to attract sufficient funding to become a permanent fixture.

It was not until 2013, that Geoff (now retired), with Professor Margaret Brown of King's College, London, and a few other luminaries from the worlds of Mathematics and Mathematics Education, resurrected the idea of an interactive mathematics discovery space, and the charity and registered company MathsWorldUK (MWUK) was born to turn this idea into a physical reality. MWUK was formally launched at an important event held in the Houses of Parliament in February 2014. Geoff became Chair of the Directors, eventually stepping down from this role in 2023, after which he was made Honorary President for life. He was passionate about his role in MWUK.



Geoff was born and grew up in London and graduated from King's College, London with a good honours degree in Mathematics in 1954. When called for military service, he obtained a three-year commission in the Royal Navy, recruited as a mathematics graduate to become fast-tracked as an officer. In the Navy he learnt about the many uses of mathematics at sea including navigation and ship stability. Geoff became a Lieutenant Commander. He spent much of his time in the Navy teaching at the Britannia Royal Naval College in Dartmouth.



After leaving the Navy, Geoff remained a naval reserve from 1958 until 1972. He always remained a keen sailor, teaching sailing to some of his students as well as taking regular canal holidays with his family and for a time owning his own narrow boat, *Smeaton*.





Geoff started his civilian teaching career as a teacher of mathematics and housemaster at Gordonstoun School in Scotland, where he enjoyed outward-bound pursuits, such as leading teams of boys in climbing the Cairngorms in winter and sailing boats round the stormy Orkneys. He then became Principal Lecturer at Balls Park College, a teacher training college in Hertfordshire, where he aimed to inspire and influence trainee teachers in mathematics. Subsequently he became Senior Lecturer in the Centre for Studies in Science and Mathematics Education in the University of Leeds, where he became Director of Teacher Training. Geoff served as Dean of the Faculty of Education, being a member of the Senate, and the Board of the Faculty of Education and its Policy Group. He was also heavily involved with the University's Military, Air Force and Naval Education



Committee for many years due to his interest in the Navy, and in flying, having been an amateur pilot.

Whilst at Leeds, Geoff became a consultant official for the British Council. Much of his work with the British Council was overseas, providing aid in the form of teacher training courses in various countries all over the globe, mainly in South Africa during the apartheid years, but also India, Malaysia, Philippines, and many other places in Africa.





It was during his time in Malaysia that Geoff met Zakiah Mohammad Noor, a teacher from the north of Malaysia, who was attending one of the British Council courses he was running in Malacca. She became Geoff's wife in 1975. He is survived by Zakiah and their three children, Johann, Noreena and Daniel, along with Geoff's sons Alexis and Rupert from a previous marriage, plus five grandchildren. We share in their sad loss.



After retirement from Leeds in 1994, he returned to Malaysia with the family to spend two years working as Professor of Education at the new University of Malaysia, Sarawak (UNIMAS) in Borneo.

Geoff had many interests and hobbies, ranging from philately to sports, having rowed at Kings and

played cricket, rugby and football in his youth. He was a great reader, especially of biographies, science and history, with a particular interest in military history and the World Wars, having grown up in London during World War II and his father having served in World War I. He was also a very active member in the Rotary Club during his retirement. However, his greatest interest, aside from mathematics, was music. He was an accomplished piano player and also loved to sing, performing as a member of the Leeds Festival Chorus and several other choirs. He loved Gilbert and Sullivan, even performing as Fred in Pirates of Penzance and Nanki Poo in The Mikado in the 1950s.



The Gordonstoun/Elgin Mikado. Photograph: H A Wahltuch





Geoff was a very personable and sociable person, who enjoyed conversation and the company of others, making many lifelong friends along the way. They all recall his charm, his wit, his kindness, his optimism and his zest for life, and how through their friendship with Geoff he had enriched their own lives. He was a great raconteur and always added an air of mystery and tension to all the tales he told, such as when suggesting a building for the Directors of MathsWorldUK to investigate: Temple Mill in Leeds. He would say things like, *"Do you know I have discovered this ancient Egyptian temple in the heart of Leeds! It's so interesting I think we should all go to see it."*

He loved mathematics with a passion and was fond of setting challenges. One particular problem intrigued him greatly. In his own words:

"A man is marooned on a desert island and has treasure with him. He makes a temporary hut (H) for himself. The only other prominent things on the island are two trees (T and t). He sees a ship coming and signals for it to rescue him but does not want to take the treasure with him in case the people in the ship take it. He decides to hide the treasure. He walks from the hut to the first tree and turns through a right angle away from the other tree and walks a distance TA = HT and marks a spot (A). He then goes from the hut to the second tree, turns through a right angle away from the first tree and goes forward a distance tB = Ht and marks a spot B. He then finds the midpoint of AB and buries the treasure there. The ship picks him up. Sometime later he gets back to the island to recover the treasure. To his horror the temporary hut has completely disappeared. What does he do?"

We urge our readers to solve this problem for themselves.

Finally, Geoff's family has requested that anyone who wants to make a donation in Geoff's memory should make the donation to MathsWorldUK, the project so dear to Geoff's heart, via the link <u>https://lovegiving.co.uk/maths-world-uk</u>



This article was written with the help of inputs from Geoff's children.



MathsWorld

The next milestone on our journey to establish the National Mathematics Discovery Centre of the United Kingdom, is a second centre in London. We had already outgrown our spatial needs in MathsCity, Leeds and the London venue will enable us to run different exhibits simultaneously in two different parts of the country. Since London is the largest city in the UK and also such an important global tourist centre, a second venue in London will attract larger visitor numbers than were ever possible in Leeds alone. We are fortunate and grateful to have found backers to support MathsWorld.



We are excited to announce the development of our new discovery centre in the heart of Southwark, London — just a stone's throw from the Tate Modern. Nestled beneath a striking railway viaduct on Burrell Street, this unique, two-floor space will be a vibrant playground for mathematical exploration. Designed in collaboration with architects and exhibition designers IDK, the centre transforms a former office into a workshop of wonder, where interactive exhibits will bring maths to life for visitors of all ages. With zones dedicated to both pure and applied mathematics, every corner will invite curiosity, experimentation, and the joy of problem-solving — here, no answer is ever truly "wrong".

The design of the centre will embrace maths in every detail — from the columns and stairs to the furniture and finishes — creating an immersive environment that celebrates the beauty and power of mathematics. Visitors will find challenges woven into the very fabric of the space, through 2D graphics, suspended sculptures, films, and striking 3D installations. The layout will be flexible to host a variety of events for the coming together of the maths community in the heart of London. More than just an exhibition, we hope it will become a hub for maths in the capital and a celebration of our subject as colourful, joyful, and endlessly fascinating for all ages.





Our backers have guaranteed our occupancy and all development and staffing costs for the next three years. That should give us plenty of scope to develop new ideas and to see which sorts of exhibits are most successful. We hope continuing success in both London and Leeds will inevitably lead within a few years to the physical establishment of the National Mathematics Discovery Centre of the United Kingdom.

The three-year lease on Burrell Street has been signed by the time this Newsletter appears. We expect that the official opening of this site will take place in early November 2025, but the site may be open to visitors before that date. **MathsWorld** will contain the zones: Under 8s, Shape, Number, Problem-Solving, Codes, Mind and Machine. There will be exhibits for everyone.

As usual, we will depend on our supporters to guarantee the success of this new venture. In particular, we wish to thank our backers for their generous support in guaranteeing our presence in the London scene. We are indebted to the following donors who have made the London venue possible:

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