For British Pugwash, as for billions worldwide, 2020 was the year of Covid-19. The pandemic affected WMD-related international diplomacy and Pugwash activity.

Limitations on gatherings and restrictions on travel caused the postponement of the Pugwash movement’s biennial conference, scheduled for March, to 2021, probably November. A Review Conference for the 1968 Nuclear Non-Proliferation Treaty (NPT), scheduled for April 2020, is now due to open on 2 August 2021.

Among other WMD-related preparatory or review conferences suffering similar fates were two meetings of the parties to the 1972 Biological Weapons Convention (BWC). Postponement of these means that the Ninth BWC Review Conference, originally scheduled for 2021, will now take place during 2022.

This curtailment of diplomatic activity has been offset, arguably, by enhanced worldwide understanding of the impacts of infectious disease. Particularly productive of understanding has been the challenge of pinpointing the origin of the SARS-CoV-2 virus which causes COVID-19. Whether the COVID-19 pandemic was caused by a natural event or resulted inadvertently from a research activity, the pandemic has alerted scientists to the importance of considering carefully the potential effects of their research, and of communicating widely the contexts and purpose of their work. The pandemic has also made plain the almost unimaginable developments in the understanding of disease, its spread and its prevention that have occurred since the great influenza pandemic of the early 20th century.

Disputes continued over whether Syria has declared all relevant information regarding its chemical weapons programme since acceding to the Chemical Weapons Convention (CWC) in 2013. In July, the CWC Executive Council adopted a decision (29 votes in favour, 3 against, 9 abstentions) setting a deadline for resolving outstanding issues relating to Syria’s initial CW declaration. The decision provided that, if this deadline were not met, the matter would be referred to a Conference of States Parties (CSP) due at the end of 2020. The deadline was not met. However, owing to pandemic constraints, the CSP convened only briefly, to take budgetary decisions essential to keeping the OPCW operating, and then adjourned to an unspecified date in 2021.

The poisoning of Alexei Navalny in August put chemical weapons in the spotlight once more. After Navalny’s arrival in Germany from central Russia, German authorities despatched medical samples to several laboratories. These reported detecting a poisonous substance described as being within the Novichok family, but outside of the class of chemicals added to the Schedules of the CWC after the 2018 Salisbury poisonings.

On the nuclear front the question that dominated the year was whether or not New START (2010) would be extended from February 2021 and, if so, for how long. President Trump’s negotiators continued to set conditions for extension, including (until September) Chinese participation of some sort, which were unacceptable to Russia. The November US Presidential election broke the deadlock by promising a Biden administration that was committed publicly to an unconditional five-year extension.

Russian and Chinese concerns about the reliability of their strategic nuclear deterrents grew when a US missile interceptor succeeded for the first time in destroying a target ICBM.

The Trump administration continued to apply “maximum pressure” to Iran in a belief that this would cause Iran to abandon uranium enrichment, development of cruise and ballistic missiles, and military support for regional allies. Iran reciprocated by adding to the list of voluntary restrictions on nuclear activity that it was no longer implementing. The US Presidential election brought hope that both the United States and Iran would return to full implementation of the 2015 JCPOA during 2021.

The North Korean front was quiet, devoid of both nuclear testing and significant diplomatic activity.

Potential hostile uses of emerging technologies remained
in focus through the year, with continuing concerns that advances in digital processing systems could lead to decisions on the use of lethal force being made by machines rather than humans. The 1981 Convention on Certain Conventional Weapons (CCW) held a Group of Governmental Experts (GGE) meeting during 2020 on Lethal Autonomous Weapons Systems. Pugwash supports calls for a global ban on such systems and is a member of the Steering Committee of the Coalition to Stop Killer Robots. Student/Young Pugwash (SYP) UK is active within the UK coalition.

Though affected by the pandemic, British Pugwash succeeded, not least thanks to online meeting technology, in putting together a respectable programme of events, especially within the framework of SYP UK. Details of these and other activities follow.

**Projects**

**Student/Young Pugwash (SYP) UK**

SYP UK opened the year by launching a new group at University of Oxford, led by Physics students Runbei Cheng and Amelia Adcroft. Its first event was a talk on ‘The Russell-Einstein Manifesto: Its Origins and Legacy’, given by British Pugwash’s Professor John Finney.

In March, SYP UK hosted its Annual Conference - titled ‘Warwick Technology & Peace Conference’ - which brought together over 50 participants, including young researchers, practitioners, campaigners and students. Presentations covered potential catastrophic misuses of the biological sciences, the weaponisation of space, the ‘cyber-nuclear nexus’, and the role of tech workers in challenging Lethal Autonomous Weapons. Slides are at: tinyurl.com/4sl2njvo

Over the summer, SYP UK organised a series of webinars on issues in global politics, arms control and ethics. Guest speakers included Dr Tong Zhao (Carnegie—Tsinghua Center for Global Policy, Beijing), Sahil Shah (European Leadership Network) and Laura Nolan (formerly of Google). Recordings of the sessions can be found on SYP UK’s YouTube at tinyurl.com/265vj3rb

In September, SYP UK organised a media training day for young scientists wanting to hone their interviewee skills. The session was delivered by the Media Trust and involved practice TV and radio interviews about controversial technologies and climate change.

Throughout November, SYP UK hosted a well-attended webinar series about ethics in science and technology. Sessions covered responsibility in open-source nuclear research, science and indigenous peoples, bias in software development, and the rise of ‘killer robots’.

In December, SYP UK appointed Emily Enright (a student at KCL) to develop its Project on Ethical Science, a new initiative to help STEMists engage in public debates about the social impacts of science and technology.

Finally, SYP UK would like to thank Niamh Healy (UCL) for her leadership as SYP UK President in 2020. Niamh ensured SYP UK overcame the challenges of the pandemic, developed important new partnerships, and stimulated urgent debates on many cutting-edge issues in technology, policy and ethics.

**Report from PeaceJam UK**

The year of Covid 19 has seen a lot of our work, as it has with most organisations, move online. Whilst we have missed the face-to-face contact with students, we have nonetheless reached many of them and their teachers and youth workers online through a series of trainings and workshops, which we have organised. It actually proved easier to reach teachers and other educators online than in person, which was an unexpected and pleasing bonus.

This year we have been working on our mentoring programme. Our research over the last 14 years of PeaceJam events and engagement in educational and youth work settings shows that university students who have been trained as mentors have a huge impact as near-peer role models on the young participants at PeaceJam events. This we know from the conference evaluation surveys which consistently show high ratings for both the mentors themselves and the ‘Family Group’ experience.

Equally, the experience is beneficial to the university students who receive training in facilitation and the opportunity to develop their leadership skills, work with young people and meet a Nobel Peace Laureate. Debriefings with our student mentors tell us that working with young people on the PeaceJam programme has a deep, transformative and galvanising effect on them. So much so that the current CEO of PeaceJam in the USA is a former Peace Studies Masters student, whose first contact with PeaceJam was as a mentor at a PeaceJam UK Laureate conference. PeaceJam UK’s only paid staff member is also a former Peace Studies student who worked as a mentor.

From 2006-14, PeaceJam UK ran its annual weekend conferences at the University of Bradford, whose Peace
Studies students were deeply involved as mentors and organisers (approximately 500 mentors were trained at Bradford). We have also trained student mentors at the Universities of Leeds, York and Winchester (PeaceJam events have been hosted at the latter since 2016), and Leeds Trinity, Southampton, and Cardiff.

To further harness this powerful experience, and to help meet the demand for our programmes, PeaceJam UK is developing a ‘Mentors into Schools’ programme, whereby university students receive training to support the PeaceJam programme in educational settings. In particular, the mentors will support educators and young people in devising and carrying out the community-enhancing social change projects as part of PeaceJam’s ‘1 Billion Acts of Peace’ campaign.

We know, from several months of providing online introductions to PeaceJam to educators across the UK during this past year, that they are very interested in the availability of support. Currently, we assume that all such activity will be online. As such we will train the PeaceJam student mentors to operate safely and effectively in this online environment.

With Brexit our current Erasmus + programme in Europe is coming to an end. We did, however, manage to hold an online European student conference in November attended by young people from the Netherlands, Greece, the Czech Republic, Belgium and the UK.

Report prepared by Sally Milne, British Pugwash Group (BPG) Executive Committee

New research project on ‘Climate and Trident’

In 2020, British Pugwash secured funding from Poldem-Puckham Charitable Foundation to develop a new research project on the potential impacts of climate change on the UK’s nuclear weapons infrastructure.

We have now appointed a researcher to conduct the work and hope to publish a report on these issues in mid-2021.

The report will include:

- Assessments of how forecasts of climate impacts, especially flooding, map onto the location of nuclear military sites
- Case studies of relevant sites
- Recommendations for policy and future research

New video on hypersonic weapons research

Matteo Frigoli produced a video discussing his research on developments with hypersonic missiles, which we have published on YouTube. The presentation is based on research commissioned by British Pugwash.

The presentation covers:

- Technical issues
- Destabilising potential of hypersonics
- US, Russian and Chinese perspectives
- Arms control options

The video is online at: tinyurl.com/17w97ucs

Events

British Pugwash Lecture (at Hay): Jim Al-Khalili on ‘The World According to Physics’:

In May, the Hay Festival of Literature and Arts moved to an online format and our annual British Pugwash Lecture at Hay was given by the broadcaster and quantum physicist Jim Al-Khalili.

Based on Jim’s latest book - The World According to Physics - the talk took us on an entertaining tour of modern physics: what we know about the universe and what we have yet to figure out.

A recording is at: https://tinyurl.com/c164gc5k

‘Post-COVID Multilateral Cooperation - A Chance To Achieve A Nuclear-Weapons-Free World?’

In September, Peter Jenkins, BPG Chairman, spoke at a webinar (co-hosted by SOAS and the London Embassy of Kazakhstan) on prospects and opportunities for multilateral nuclear disarmament.

Other speakers included Yerzhan Ashikbayev (Deputy Minister, Ministry of Foreign Affairs of Kazakhstan), Dr Lassina Zerbo (Executive Secretary, Comprehensive Nuclear-Test-Ban Treaty Organization) and Aidan Liddle (Ambassador and Permanent Representative of the United Kingdom to the Conference on Disarmament in Geneva).

A recording is at: https://tinyurl.com/maom2mtz
‘Future of the Treaty on the Non-Proliferation of Nuclear Weapons: A View from Russia and Europe’

In late September, British Pugwash Chairman Peter Jenkins CMG spoke in an online roundtable titled ‘Future of the Treaty on the Non-Proliferation of Nuclear Weapons: A View from Russia and Europe’. The event was hosted by the Boris Yeltsin Presidential Library, as part of its annual Forum of Knowledge event.

Other speakers included: Sergey Batsanov, Pugwash Geneva Office; Anton Khlopkov, Moscow Non-Proliferation Conference; and Oliver Meier, Institute for Peace Research and Security Policy at the University of Hamburg.

A recording is at: https://tinyurl.com/ws8m8rrx

Verification in the Age of Google Earth (SOAS)

On 9th September 2020, British Pugwash Group Exec member, Dr Richard Guthrie, spoke in a webinar which showcased different open source verification projects and explored possible overlaps and synergies between them. It was hosted by the Centre for International Studies Department at SOAS, London.

Other speakers were: Aric Toler (Bellingcat.com) and Jamie Withorne (James Martin Center for Nonproliferation Studies).

A recording is at: https://tinyurl.com/udoksp17

Post-AGM talk: The challenges of UK radioactive waste disposal

In December, following our first virtual Annual General Meeting, British Pugwash hosted a public lecture covering the history, science and ethics of radioactive waste management in the UK.

Our guest speaker was Dr Ian Crossland, a specialist with more than 50 years’ experience of the nuclear industry.

A recording is at: https://tinyurl.com/yjp76nkb

British Pugwash developments

Welcoming our Patrons

In January, British Pugwash was pleased to announce the appointment of eight Patrons, all of whom are eminent figures from the worlds of science and defence.

Our Patrons are public supporters and advocates for the work of British Pugwash. They are:

- Lord Martin Rees OM FRS
- Sir Colin Blakemore FMedSci FRS
- Dame Athene Donald DBE FRS
- Sir Timothy Gowers FRS
- Sir Chris Llewellyn Smith FRS
- General Sir Nick Parker KCB CBE
- Sir Hew Strachan DL FRSE FRHistS FBA
- Prof Angela Vincent FMedSci FRS

Membership growth

In 2020 British Pugwash gained 37 new members, with 27 of these being in the student or Under 30s category.

New Executive Committee members

In 2020, we were pleased to appoint the following to the British Pugwash’s Executive Committee: Anuradha Damale, an Assistant Researcher at VERTIC and UK Director of Women of Color Advancing Peace and Security, and Marina Favaro, who was a Policy Analyst on BASIC’s Emerging Technologies programme and now works at the Institute for Peace Research and Security Policy at the University of Hamburg.

Changes at British Pugwash Trust

British Pugwash Group has historically worked with and received support from the British Pugwash Trust, a charitable organisation whose goals include the advancement of education about international security.

In late 2020, the Trust changed its name to the Joseph Rotblat Memorial Trust (JRMT), to honour the memory of its founder and to clarify its independance from the Group, a non-charitable membership organisation.

Sir Joseph Rotblat, the physicist and peace activist, donated his share of the 1995 Nobel Peace Prize to the Trust, which has henceforth sought to maintain its capital but also provide grants in support of education, research and to help scientists attend international conferences relating to international peace and security. It will continue in this work under its new name.

The current Trustees of JRMT are listed on the last page of this report. More information can be found online at: https://britishpugwash.org/joseph-rotblat-memorial-trust
Obituaries

In 2020, we mourned the loss of two distinguished, long-term members of British Pugwash, Prof. Julian Perry Robinson and Prof. Frank Barnaby.

Professor Julian Perry Robinson

Julian Perry Robinson combined academic research with behind-the-scenes advocacy to enhance controls on some of the most inhumane weapons in the world. He was a leading member of the specialised study groups on chemical and biological weapons within International Pugwash conferences, bringing together and generating common understandings between experts and policymakers from East and West.

Dr Richard Guthrie prepared an obituary for him, which was published in the Guardian here: https://www.theguardian.com/world/2020/may/08/julian-perry-robinson-obituary

Professor Frank Barnaby

Frank Barnaby was one of our longest-standing members and former Executive Secretary. Frank’s early career was at the Atomic Weapons Research Establishment at Aldermaston and he twice monitored nuclear weapons tests in Maralinga, South Australia, in 1956 and 1957. After leaving Aldermaston, he developed a career in academia, research and peace advocacy, publishing extensively on the risks of nuclear warfare and nuclear power. From 1971 to 1981 he served as Director of the influential Stockholm International Peace Research Institute.

An obituary for Frank was published in The Guardian at: https://www.theguardian.com/world/2020/aug/24/frank-barnaby-obituary
British Pugwash Group
Executive Committee 2020

Chairman: Peter Jenkins CMG
Hon. Treasurer: Dr Ian Crossland
Dr Christopher Watson
Dr Caitriona McLeish
Dr David Ellwood
Dr Mamdouh El-Shanawany
Marina Favaro
Anuradha Damale
Nicolas Ayala Arboleda

For the British Pugwash Trust: Mark Ingram, Dr Richard Guthrie

For PeaceJamUK: Sally Milne

Staff / Ex Officio: Andrew Gibson, Secretary

Joseph Rotblat Memorial Trust
Trustees 2020

Chair: Dr Richard Guthrie
Treasurer: Mark Ingram
Professor John Finney FInstP, FRSC
Scarlett MccGwire
Lord Rees of Ludlow OM, FRS
Dr Tom Milne