60 YEARS IN THE PEACE MOVEMENT

An apology

Holger Terp, the Editor of the Danish Peace Academy's enormous and popular website, suggested that I should write something about my involvement in the peace movement as part of this collection of articles. Since I am now 81 years old and in poor health, perhaps I can be forgiven for following his advice and writing down some things that I remember, while I still can do it.

World Federalism

In 1954, sixty years ago, I graduated from MIT and went on to do postgraduate work in theoretical physics at the University of Chicago. At that time, my political opinions were not very different from those of my parents, who were Eisenhower-supporting Republicans. I was very much against the institution of war, and in favor of world government. However, I thought that the establishment of a world authority would have to wait until most of the the member states had decent governments.

At the University of Chicago, the general atmosphere was quite liberal, and I may have been influenced by it. But what really changed my mind was hearing a speech by a World Federalist named Vernon Nash. Besides convincing me that a world government ought to be a federation, he also made me see that if we waited until all the member states had governments of which we could approve, we would have waited too long. We need global governance precisely because of faults in the governments of the nations of the world.

Vernon Nash had once been in favor of abolishing the United Nations and starting again from scratch with a World Constitutional Convention. He had justified this position by saying "No one has ever got across a ditch of any size in two jumps". However, other World Federalists had later made him see how impractical his position was, and he finally agreed that gradual reform of the UN was the best way to go forward. After studying the writings of the World Federalists, I reached beliefs that are very close to the ones that I hold today. I recently expressed these ideas in an article in Cadmus, a journal of the World Academy of Art and Science. You can find the article by typing "John Scales Avery, Cadmus" into a search engine.

But what are the reforms that are needed? After the horrors of World War II, the United Nations was founded to eliminate the institution of war. However, the UN Charter drafted in 1945 was far too weak to achieve this goal because it was a confederation rather than a federation. This was very similar to what happened during the early history of the United States: First a confederation was tried, but it soon proved to be too weak, and it was replaced by the present US federal constitution. The debates that occurred at that time are very relevant to UN reform today.

George Mason, one of the architects of the federal constitution of the United States, believed that "such a government was necessary as could directly operate on individuals, and would punish those only whose guilt required it", while James Madison (another drafter of the U.S. federal constitution) remarked that the more he reflected on the use of force, the more he doubted "the practicability, the justice and the efficacy of it when applied to people collectively, and not individually".

Finally, Alexander Hamilton, in his Federalist Papers, discussed the Articles of Confederation with the following words: "To coerce the states is one of the maddest projects that was ever devised... Can any reasonable man be well disposed towards a government which makes war and carnage the only means of supporting itself - a government that can exist only by the sword? Every such war must involve the innocent with the guilty. The single consideration should be enough to dispose every peaceable citizen against such a government... What is the cure for this great evil? Nothing, but to enable the... laws to operate on individuals, in the same manner as those of states do."

In other words, the essential difference between a confederation and a federation, both of them unions of states, is that a federation has the power to make and to enforce laws that act on individuals, rather than attempting to coerce states (in Hamilton's words, "one of the maddest projects that was

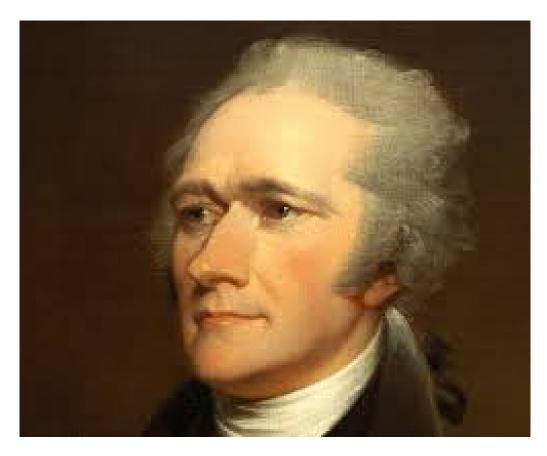


Figure 1: Alexander Hamilton believed that "To coerce the states is one of the maddest projects that was ever devised."

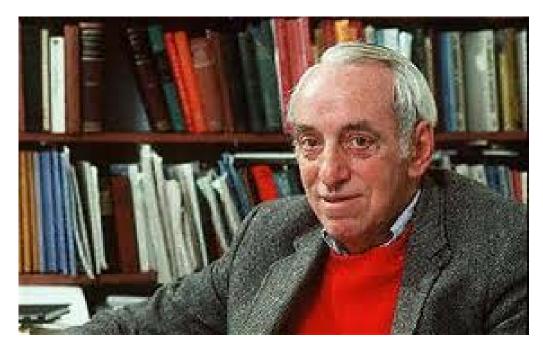


Figure 2: James Tobin. When asked what should be done with the proceeds of the tax, Tobin said, almost as an afterthought, "Let the United Nations have it."

ever devised.")

Other reforms are also needed: If the UN is to become an effective World Federation, it will need a reliable source of income to make the organization less dependent on wealthy countries, which tend to give support only to those interventions of which they approve. A promising solution to this problem is the so-called "Tobin tax", named after the Nobel-laureate economist James Tobin of Yale University. Tobin proposed that international currency exchanges should be taxed at a rate between 0.1 and 0.25 percent. He believed that even this extremely low rate of taxation would have the beneficial effect of damping speculative transactions, thus stabilizing the rates of exchange between currencies. When asked what should be done with the proceeds of the tax, Tobin said, almost as an afterthought, "Let the United Nations have it."

The volume of money involved in international currency transactions is so

enormous that even the tiny tax proposed by Tobin would provide the United Nations with between 100 billion and 300 billion dollars annually. By strengthening the activities of various UN agencies, the additional income would add to the prestige of the United Nations and thus make the organization more effective when it is called upon to resolve international political conflicts.

The budgets of UN agencies, such as the World Health Organization, the Food and Agricultural Organization, UNESCO and the UN Development Programme, should not just be doubled but should be multiplied by a factor of at least twenty. With increased budgets the UN agencies could sponsor research and other actions aimed at solving the world's most pressing problems - AIDS, drug-resistant infections diseases, tropical diseases, food insufficiencies, pollution, climate change, alternative energy strategies, population stabilization, peace education, as well as combating poverty, malnutrition, illiteracy, lack of safe water and so on. Scientists would would be less tempted to find jobs with arms-related industries if offered the chance to work on idealistic projects. The United Nations could be given its own television channel, with unbiased news programs, cultural programs, and "State of the World" addresses by the UN Secretary General.

In addition, the voting system of the United Nations General Assembly needs to be reformed, and the veto power in the Security Council need to be abolished (or alternatively, the Security Council could be abolished).

So in 1954, convinced that war could only be eliminated by making the United Nations into a federation, I became an active World Federalist. In fact, during my stay at the University of Chicago, I became the Membership Chairman for the Chicago Area of the World Association of World Federalists.

The CND

After receiving an M.Sc. in theoretical physics at the University of Chicago, I studied theoretical chemistry at Imperial College of Science and Technology, a part of the University of London, where I completed a Ph.D. in 1965. I must say that London was a splendid place to live in the 1960's and early 1970's. This was the era of "swinging London", the era of the Beatles, Twiggy and



Figure 3: The Campaign for Nuclear Disarmament (CND) organized marches from London to Aldermaston every Easter to protest against nuclear weapons.

Mary Quant. If you went to King's Road in Chelsea on a Saturday you could see young people dressed in absolutely mad costumes which they had purchased at stores like *I Was Lord Kitchener's Valet*. It was also the era of Aldermaston Marches, which I joined, and I was a member of the British Society for Social Responsibility in Science.

Science, Ethics and Politics

I taught at Imperial College until 1973, when I moved to the University of Copenhagen for family reasons. Copenhagen is also a splendid place to live, and before very long I found myself involved with the peace movement in Denmark. What happened was as follows:

My young daughters Anne and Julie used to sing in the choir of an 800year-old church in the village of Herstedøster, near to where we lived on the outskirts of Copenhagen. My wife and I sometimes attended the church services to hear them sing. As I thought more and more about it, I began to think that the Christian Church ought to work actively for peace, since Christian ethics require us to love our neighbors and even to forgive our enemies, in contrast to the nuclear doctrine of massive retaliation, which requires our governments to commit genocide.

I took these ideas to our two local priests, Elna and Stephan, hoping that they would introduce working for peace as a theme in their sermons. They told me that they could not do that, because church regulations did not allow it; but they agreed with enthusiasm to organize a series of evening seminars about Christianity and peace. These were a great success, and among the people who attended them was a young man (at that time he was young) named Nicky Brown. When he told me his name, I said "Oh, you must be the son of Gerald Brown". It was an easy guess and it turned out to be right. His father was a very well-known physicist at the Niels Bohr Institute, whose books I had recently been using. Brown is not such a common name in Copenhagen.

Nicky, who is a religious person, suggested that we should organize a "Danish Christian Peace Movement". We were soon a small organization which used to have regular meetings. The next step in the strange sequence of events was that the International College in Helsingør invited our Danish Christian Peace Movement to be a co-organizer of a two-week summer school on nonviolence, together with Jørgen Milwertz of the World Health Organization.

The summer school, which was called "Towards a Non-Violent Society", was a great success, and during the course of it I came to know Jørgen Milwertz quite well. He called to my attention an essay contest sponsored by the Nuclear Age Peace Foundation. A prize was offered for the best essay on how to give science and engineering students a sense of social responsibility. I wrote an essay saying that all universities and engineering schools ought to offer a course on the history of science and its social impact. As one came to the modern era, topics such as nuclear weapons, gene splicing, sustainability and climate change would make it natural to discuss the impact of science and technology in the context of ethics.

My essay did not win the Nuclear Age Peace Foundation's contest, but Jørgen

Milwertz liked it so much that he translated it into Danish and sent it to *Politiken*, one of Denmark's major newspapers. It was accepted and published, and the students at the University of Copenhagen read it. A delegation of students came to me and said: "If you really believe what you wrote, you have to make such a course."

This was the origin of the course on "Science and Society" ("Videnskab og Samfund"), which I gave from 1987 until my retirement in 2003, in addition to my scientific teaching. At first the course was called "Science, Ethics and Politics", and there were serious difficulties in getting it accepted. The Study Board thought that science, ethics and politics were three entirely separate things, and that they ought not to have anything to do with each other. Finally they agreed to allow the course to be given, provided that neither I nor the students should get any credit for it.

Nevertheless, despite all these difficulties, the course was a great success. I wrote a book, which we used as a text. It was published in three editions and many reprintings by the Ørsted Institute Press, and was later excellently translated into Danish by Ole Rughede and Aase Lundsteen. The book was also used as a text for similar courses in England, Switzerland and Sweden.

Professor Ove Nathan, who was the Rektor (President) of the University of Copenhagen at the time, was aware of my course and the difficulties that I had encountered. He sent me many small notes telling me not to be discouraged but to keep on regardless of the opposition. One day in 1988 I received a telephone call from Ove Nathan. He told me that Pugwash Conferences on Science and World Affairs had asked him to be their Contact Person for Denmark. He was so busy with his duties as Rektor that he could not accept, and he asked me whether I would be willing to take on the duty in place of him. I was very happy to do so, and between that time and today I have worked hard for Pugwash. More about that later.

Several other similar courses were later started. For example, at the Niels Bohr Institute, Center Leader Claus Emmeche began to teach a course on the philosophy of science. Finally, in 2001, all of us who were involved in such courses wrote to the Danish Minister of Education, Margrethe Vestager, saying that we believed that all science and engineering students ought to take a course which would emphasize the need for ethics in relation to their



Figure 4: Margrethe Vestager, who was Minister of Education in 2001.

work.

Margrethe Vestager called together the heads of all the institutions of higher education in Denmark and proposed to them that such a course should be created. The leaders of these institutions agreed. The only problem was that there was a lack of people who were qualified to teach the proposed course. However, Claus Emmeche heroicly started a series of seminars designed to prepare the needed teachers. In 2004, everything was ready, and from that year onward, all science and engineering students in Denmark have been required to take a course which emphasizes ethics in relation to their work.

The Roman Catholic Peace Movement

1985 was the 100th anniversary of the birth of Niels Bohr. It occurred to me that this might be a good occasion to make a radio program about nuclear weapons. The Danish state radio had the policy that listeners could submit audio tapes, and if these were good enough, they would be broadcast. Accordingly I took some recording equipment to the meeting of Nobel Laureates and students at Lindau Germany.

The meetings at Lindau were hosted by Count Lennart Bernadotte and his wife and they were very pleasant and beautiful occasions. I interviewed a group of winners of the physics Nobel Prize, and tried to get them to discuss why so many nuclear weapons were needed. At that time there were roughly 50,000 nuclear weapons in the world, with an explosive power equal to about a million Hiroshima bombs.

The quality of my recording was not good enough to be broadcast, but a transcription of the recording was published by the Danish newspaper *In-formation*. My daughter Helen also translated the transcription into French, and we spread it as widely as possible.

A Catholic Cardinal had attended the Lindau meeting had noticed my efforts, and as a result I was invited later to a high-level meeting of the Roman Catholic Peace Movement, organized by Cardinal König of Austria. The meeting took place at Schönbrunn Palace near to Vienna. I soon realized that the main purpose of the meeting was to obtain better conditions for Catholic churches inside the Soviet block by implementing the Helsinki Agreements. But many excellent suggestions were also made for reducing tensions between East and West through trade and cultural exchanges.

The meeting at Schönbrunn Palace was also addressed by the physicist Carl Friedrich von Weizäcker, the elder brother of the President of Germany. In his speech, von Weizäcker discussed the global population explosion, and suggested that the Catholic Church ought to modify its position on birth control. Surprisingly, the high-ranking churchmen present, including Archbishop Silvistrini, all applauded.

At one point during the meeting, I was introduced to Cardinal König. He held up his ring for me to kiss, but not being a Catholic, I did not know that this was what I was supposed to do. Cardinal König quickly understood what the problem was, and he reduced my embarrassment by smiling in a friendly way.

Camilla Plum's huge event at Louisiana

One of my closest friends in Denmark was Keld Helmer-Petersen, a famous pioneer of photography as a modern art-form. He and his wife Birthe (also famous as a television writer and director) had a summer house near to the one which my family and I rented near to the sea, about 50 kilometers north of Copenhagen. My family and I greatly admired Keld and Birthe, and enjoyed conversations with them.

In 1982, Keld and I produced a pamphlet entitled "The World as it Is, and the World as it Could Be" both in English and in Danish. (See "Collected Essays, Volume 1".) This pamphlet attracted the attention of some very wealthy and idealistic friends of Keld and Birthe, Hagen and Tata Hasselbalch, and Camilla and Lisa Plum. I was introduced to them, and we discussed what needed to be done to promote peace.

A little later, Camilla contacted me and asked me to help with a huge 2-day peace event which she and her mother Lisa were organizing at the Louisiana Museum of Modern Art, north of Copenhagen. Camilla asked me to help to organize an event where leaders of many religions would meet to find the common ethical principles which united their diverse faiths. Camilla and



Figure 5: Cardinal König of Austria (1905-2004). He and many others in the Roman Catholic Church have worked actively for peace. Cardinal König was the international head of the Catholic peace movement Pax Christi.

her mother were willing to spend great amounts of money on the project, so we were able to bring together patriarchs and archbishops from the Russian Orthodox, Greek Orthodox and Catholic churches, as well as representatives of the Protestant, Jewish and Muslim faiths. The Japanese Society of Prayer for World Peace was also represented.

Our representative from the Muslim faith was not completely typical. He was the Imam of a mosque belonging to the Amadiyyh Muslims. The Amadiyyh Muslims are a relatively new branch of Islam. They believe in education and equality for women, and many other reforms of Islamic tradition. For this reason, they have been persecuted since the foundation of their movement in 1889.

The Danish Amadiyyh Imam was impressed with our event at Louisiana, and he decided to repeat it every year at his mosque in Hidovre (a suburb of Copenhagen). It became a tradition, and I was always invited as a representative of the peace movement, which is a sort of religion.

After this had gone on for several years, I received an invitation to meet Caliph Mirza Tahir Ahmed, the leader of the 10-million-strong worldwide Amadiyyh movement. He was scheduled to visit Copenhagen, and a large press conference had been arranged for him. My role in the conference was to ask him questions related to peace. I sat next to him on the podium, and I could see that he was extremely tired because of his heavy schedule. His eyes were red from lack of sleep. Nevertheless, he answered all the questions with great wisdom.

At one point, a reporter asked the Caliph how a young Amadiyyh Muslim living in the west should behave. Should he or she follow old traditions or adjust to western society. The Caliph answered that such a young person should follow what was best in both the eastern and western traditions. He said that in many respects western ideas might be the best. However, he said that in other respects, he thought that western society had lost its way. For example, he though that western classical music was excellent, since listening to it gave people peace. However, he thought that modern popular music, and modern culture in general, aimed not at peace but at excitement. Excitement, the Caliph said, is a far less worthy aim than calm and peace. I have always remembered his words.

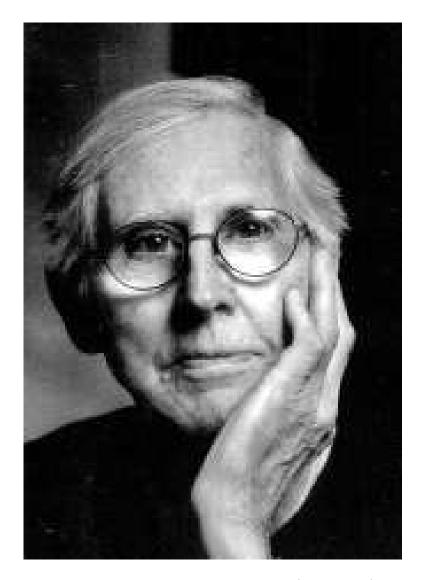


Figure 6: My close friend Keld Helmer-Petersen (1920-2013) was a famous pioneer of modern photography as an art-form. Besides his visual genius, he also had extraordinarily wide-ranging interests and human understanding.



Figure 7: Camilla Plum. She and her family gave the bulk of their large fortune to work for peace. Camilla, who believes that it is immoral to live on inherited money, now makes a living as a television personality with a show about cooking and growing organic food. We see her here in one of the greenhouses where she grows food without the use of pesticides or chemical fertilizers.

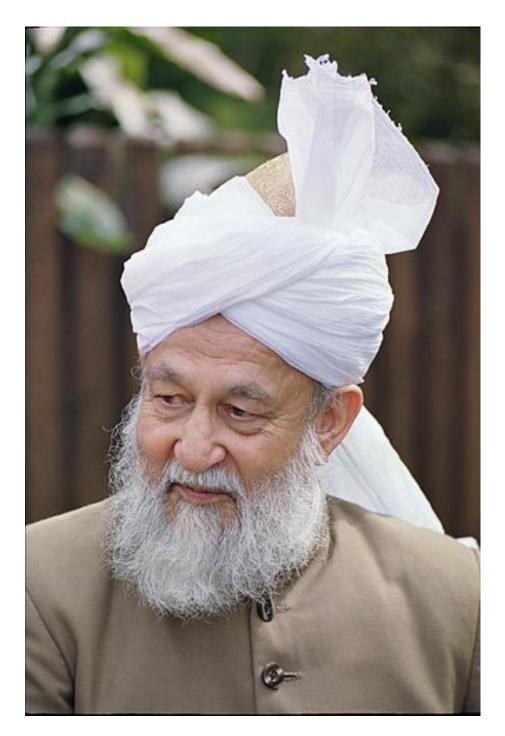


Figure 8: Caliph Mirza Tahir Ahmed. I was much impressed by his wisdom.

In 1988, shortly before the fall of the Berlin Wall, there was a large peace meeting at the Bella Center near to Copenhagen. About 5,000 people from peace groups of both western Europe and the Soviet Block participated in this meeting. Few of us who attended the meeting had previously been aware of the strength of the peace movement in the Soviet Block.

Hagen Hasselbalch, whom I had met at Keld and Birthe's summer house, urged me to try to arrange for the conference to be filmed, and to send the film to Ted Turner. Hagen knew Ted Turner personally, and he thought that the film would be broadcast on CNN. I was unable to arrange for the filming, but luckily when I attended the conference I met a young man called Slavomir Horsky, who was filming the conference for Czech television. Slavomir agreed to send me his tapes, and he did so. They turned out to be in a format that was incompatible with that used by western television. After much effort, I was able to arrange for the tapes to be converted to the right format and sent to CNN. I am not sure whether they were ever broadcast, but certainly in Denmark there was a total news blackout about the conference. Despite the size and importance of the conference, no television program or newspaper mentioned it. I realized for the first time the extent to which our mass media are the slaves of the military-industrial complex, which of course had an interest in keeping the Cold War going as long as possible.

Part-time work for the World Health Organization

An unexpected chance to do something for peace came when I was contacted by the World Health Organization and given the job of completing a large annotated bibliography that they had started to make on "Health Effects of War and the Threat of War". During his period as Director General of WHO, Halfdan Mahler pointed to war as the world's major health problem, and in consequence he commissioned the bibliography. The European Office of WHO had made a start, but they were bogged down in political problems, and hence asked me for help.

When the bibliography was completed, WHO gave me another job: They asked me to participate in planning meetings for setting the goals of WHO for the European Region. In particular, my job was to try to predict the way that science and technology would develop during the coming decades. This was exciting and fascinating work, and my association with WHO lasted a number of years.

When I was working to complete the bibliography for WHO, I was helped at the Royal library in Copenhagen by Dr. Jens Junghans, who at that time was a Research Librarian at the Royal Library. I met him again very many years later in 1995 at one of the sessions of the World Social Summit in Copenhagen. Because so many years had passed, I did not remember him, but he remembered me.

The talk which Jens Junghans gave at the World Social Summit was entitled "The Long-Term Future of Industrial Civilization". The point which he made very forcefully in this talk was that in the long run, the exhaustion of resources, especially fossil fuels, would put an end to industrial civilization as we know it today.

I realized immediately that he was right, and I asked him whether he intended to write a book about his ideas. He said that he did not intend to write a book, but only newspaper articles in Danish. I then asked Jens Junghans whether he would mind if I tried to write a book in English developing the theme about which he had spoken. He said that he would not mind, and that he would help me by lending me books from his large private library.

This was the origin of my book, "Energy, Resources and the Long-Term Future", published by World Scientific in 2007. Jens Junghans and I have continued to be close friends, and we often cooperate on projects related to the environment. He predicts that unless policy changes are made, human thoughtlessness is going to lead to an environmental mega-disaster.

Pugwash Conferences on Science and World Affairs

But back to the Pugwash Conferences on Science and World Affairs. Let me give a brief history of how the organization and its series of conferences started: In March, 1954, the US tested a hydrogen bomb at the Bikini Atoll in the Pacific Ocean. It was 1000 times more powerful than the Hiroshima bomb. The Japanese fishing boat, Lucky Dragon, was 130 kilometers from the Bikini explosion, but radioactive fallout from the test killed one crew



Figure 9: Joseph Rotblat believed that the Bikini bomb was of a fission-fusion-fission type. Besides producing large amounts of fallout, such a bomb can be made enormously powerful at very little expense.

member and made all the others seriously ill.

In England, Prof. Joseph Rotblat, a Polish scientist who had resigned from the Manhattan Project for for moral reasons when it became clear that Germany would not develop nuclear weapons, was asked to appear on a BBC program to discuss the Bikini test. He was asked to discuss the technical aspects of H-bombs, while the Archbishop of Canterbury and the philosopher Lord Bertrand Russell were asked to discuss the moral aspects.

Rotblat had became convinced that the Bikini bomb must have involved a third stage, where fast neutrons from the hydrogen thermonuclear reaction produced fission in a casing of ordinary uranium. Such a bomb would produce enormous amounts of highly dangerous radioactive fallout, and Rotblat became extremely worried about the possibly fatal effect on all living things if large numbers of such bombs were ever used in a war. He confided his worries to Bertrand Russell, whom he had met on the BBC program.

After discussing the Bikini test and its radioactive fallout with Joseph Rotblat, Lord Russell became concerned for the future of the human gene pool if large numbers of such bombs should ever be used in a war. After consultations with Albert Einstein and others, he drafted a document warning of the grave dangers presented by fission-fusion-fission bombs. On July 9, 1955, with Rotblat in the chair, Russell read the Manifesto to a packed press conference.

The document contains the words: "Here then is the problem that we present to you, stark and dreadful and inescapable: Shall we put an end to the human race, or shall mankind renounce war?... There lies before us, if we choose, continual progress in happiness, knowledge and wisdom. Shall we, instead, choose death because we cannot forget our quarrels? We appeal as human beings to human beings: Remember your humanity, and forget the rest. If you can do so, the way lies open to a new Paradise; if you cannot, there lies before you the risk of universal death."

In 1945, with the horrors of World War II fresh in everyone's minds, the United Nations had been established with the purpose of eliminating war. A decade later, the Russell-Einstein Manifesto reminded the world that war *must* be abolished as an institution because of the constantly increasing and potentially catastrophic power of modern weapons.

The Russell-Einstein Manifesto called for a meeting of scientists from both sides of the Cold War to try to minimize the danger of a thermonuclear conflict. The first meeting took place at the summer home of the Canadian philanthropist Cyrus Eaton at the small village of Pugwash, Nova Scotia.

From this small beginning, a series of conferences developed, in which scientists, especially physicists, attempted to work for peace, and tried to address urgent problems related to science. These conferences were called Pugwash Conferences on Science and World Affairs, taking their name from the small

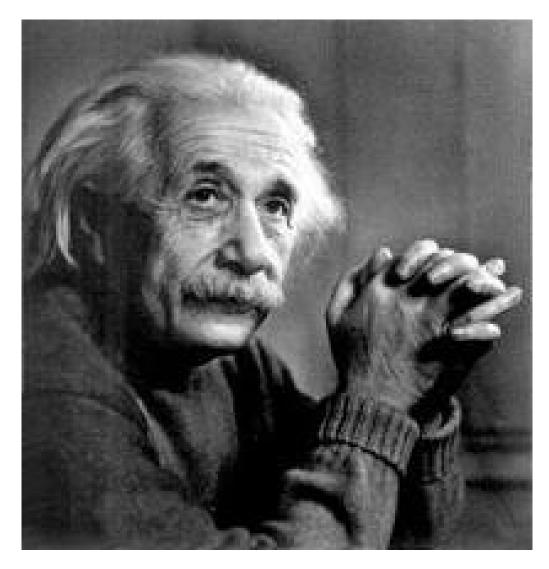


Figure 10: Signing the Russell-Einstein declaration was the last act of Einstein's life.



Figure 11: Lord Russell devoted much of the remainder of his life to working for the abolition of nuclear weapons. Here he is seen in 1962 in Trafalgar Square, London, addressing a meeting of the Campaign for Nuclear Disarmament.

village in Nova Scotia where the first meeting was held. From the start, the main aim of the meetings was to reduce the danger that civilization would be destroyed in a thermonuclear war.

It can be seen from what has been said that the Pugwash Conferences began during one of the tensest periods of the Cold War, when communication between the Communist and Anti-communist blocks was difficult. During this period, the meetings served the important purpose of providing a forum for informal diplomacy. The participants met, not as representatives of their countries, but as individuals, and the discussions were confidential.

This method of operation proved to be effective, and the initial negotiations for a number of important arms control treaties were aided by Pugwash Conferences. These include the START treaties, the treaties prohibiting chemical and biological weapons, the Nuclear Nonproliferation Treaty (NPT), and the Comprehensive Test Ban Treaty (CTBT).

Former Soviet President Gorbachev has said that discussions with Pugwash scientists helped him to conclude that the policy of nuclear confrontation was too dangerous to be continued.

Over the years, the number of participants attending the annual Pugwash Conference has grown, and the scope of the problems treated has broadened. Besides scientists, the participants now include diplomats, politicians, economists, social scientists and military experts. Normally the number attending the yearly conference is about 150.

Besides plenary sessions, the conferences have smaller working groups dealing with specific problems. There is always a working group aimed at reducing nuclear dangers, and also groups on controlling or eliminating chemical and biological weapons. In addition, there may now be groups on subjects such as climate change, poverty, United Nations reform, and so on.

Invitations to the conferences are issued by the Secretary General to participants nominated by the national groups. The host nation usually pays for the local expenses, but participants finance their own travel.

In addition to the large annual meeting, the Pugwash organization also ar-

ranges about ten specialized workshops per year, with 30-40 participants each.

Although attendance at the conferences and workshops is by invitation, everyone is very welcome to join one of the national Pugwash groups. The international organization's website is at www.pugwash.org.

In 1995, the Nobel Peace Prize was awarded jointly to Prof. Joseph Rotblat and to Pugwash Conferences on Science and World Affairs as an organization, "...for their efforts to diminish the part played by nuclear arms in international politics and in the longer run to eliminate such arms." The award was made 50 years after the tragic destruction of Hiroshima and Nagasaki.

In his acceptance speech, Sir Joseph Rotblat (as he soon became) emphasized the same point that has been made by the Russell-Einstein Manifesto - that war itself must be eliminated in order to free civilization from the danger of nuclear destruction. The reason for this is that knowledge of how to make nuclear weapons can never be forgotten. Even if they were eliminated, these weapons could be rebuilt during a major war. Thus the final abolition of nuclear weapons is linked to a change of heart in world politics and to the abolition of nuclear war.

"The quest for a war-free world", Sir Joseph concluded, "has a basic purpose: survival. But if, in the process, we can learn to achieve it by love rather than by fear, by kindness rather than compulsion; if in the process we can learn to combine the essential with the enjoyable, the expedient with the benevolent, the practical with the beautiful, this will be an extra incentive to embark on this great task. Above all, remember your humanity"

I vividly remember the ceremony in Oslo when the 1995 Nobel Peace Prize was awarded jointly to Sir Joseph and to Pugwash Conferences. About 100 people from the Pugwash organization were invited, and I was included because I was the chairman of the Danish National Pugwash Group. My chair at the ceremony was only a few meters away from the Norwegian royal family.

After the ceremony and before the dinner, local peace groups had organized a torchlight parade. It was already dark, because we were so far to the north, and snow was falling. About 3,000 people carrying torches marched through



Figure 12: This photo shows Sir Joseph Rotblat in his London office shortly after he had been informed about the award of the Nobel Peace Prize. The bundles of manuscripts in the background are there because he edited the proceedings of each large yearly Pugwash Conference. The resulting books were then distributed to governments and to decision-makers.

the city and assembled under Sir Joseph's hotel window, cheering and shouting "Rotblat! Rotblat! Rotblat!". Finally he appeared at the hotel widow, waved to the crowd and tried to say a few words. This would have been the moment for a memorable speech, but the acoustics were so terrible that we could not hear a word that he said. I later tried (without success) to persuade the BBC to make a program about nuclear weapons and about Sir Joseph's life, ending with the falling snow and the torch lit scene.

I attended almost all of the yearly Pugwash Conferences from 1989 onwards, until I became too ill to travel. Some of them are especially vivid in my memory. The 1991 conference took place in Beijing, and I served as Rapporteur for the working group on Eliminating Poverty and Achieving Sustainability. The task of being Rapporteur involves sleepless nights, but it is also very instructive because one has to learn to write rapidly. My report in Beijing was a big hit, partly because I emphasized the important role of women in achieving sustainability.

The following year, the big conference was held in Berlin. It was especially interesting because Prof. Hans-Peter Durr, the Director of the Max Planck Institute for Physics, argued strongly that for a process to be truly sustainable, it has to be cyclic. There cannot be sources, because in the long run they will be exhausted, nor sinks, because in the long run they will be filled. I was again chosen to be Rapporteur for the working group on Sustainability.

The night before the end of the conference I had just finished the final version of my report, which emphasized the need for stabilizing global population. It was 2.00 AM, and I had just turned off my light and was about to go to sleep. There was a knock on the door, and when I opened it I was faced with a delegation that had come to persuade me to change the part about population stabilization. At about 3.00 AM we finally reached a compromise, and they left me to sleep in peace for a few hours.

I attended many other Pugwash conferences in various parts of the world, all of them interesting. I was almost always chosen to be Rapporteur for whatever working group I was a part. As mentioned, this involved sleepless nights. The Rapporteur had to prepare draft report overnight, which was presented at the last session of the working group. The report was criticized by the members of the group. Then a final draft had to be prepared overnight, and

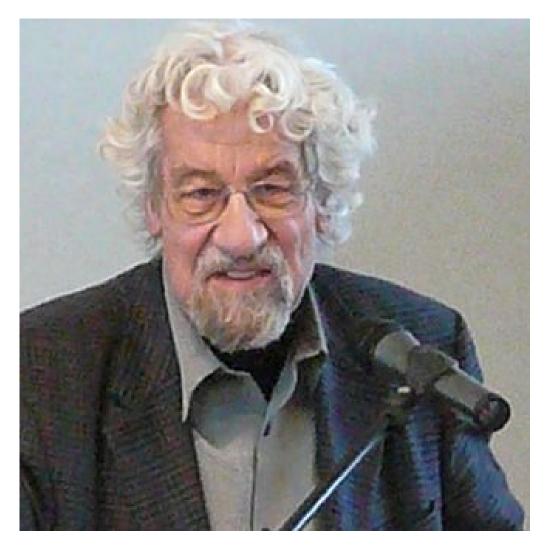


Figure 13: *Hans-Peter Durr, (1929-2014).*



Figure 14: Elisabeth Møller Jensen

read to the final plenary session of the conference. It was exhausting work, but besides giving me practice in rapid writing, it also gave me experience in speaking to a large and important audience.

In 1995, after Pugwash Conferences had shared the Nobel Peace Prize with Sir Joseph Rotblat, our organization was given considerable publicity in Denmark. For the moment, at least, everyone knew who we were. I felt that I ought to make use of this situation to apply for money to organize a Pugwash workshop. The topic that I thought would be interesting for the workshop was "The Role of Women in Achieving a Sustainable Society".

I went to see Elisabeth Møller Jensen, the leader of the Danish feminist movement, who was related by marriage to my wife. I did not expect that much would happen during my first visit with Elisabeth, but such was her enormous decisiveness and efficiency as an administrator that by the time I left her office everything was completely arranged for the workshop. She had even made reservations at a center for Nordic cooperation in a fashionable suburb of Copenhagen.

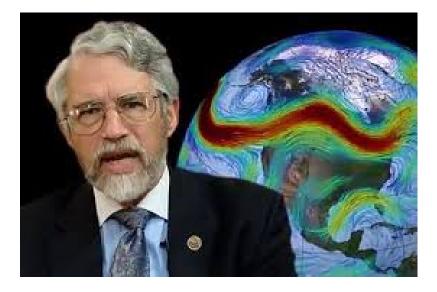


Figure 15: Prof. John P. Holdren. He was chairman if the Executive Committee of Pugwash Conferences and is currently one of President Obama's chief scientific advisors.

Sadly, the Pugwash Council did not allow me to organize a workshop on the topic that I had chosen. Instead they insisted that the workshop should be on "The United Nations Framework Convention on Climate Change". I was forced to go along, and we were still able to use the reservations made by Elisabeth. I was also able to obtain financial support for the workshop.

At that time, I did not realize the full importance of climate change, but I must admit that one of the lectures at the workshop was alarming and thought-provoking. It was by Prof. John P. Holdren. During his lecture, he showed us images illustrating the degree of global warming that was predicted for the 21st century in various parts of the world. Then, in answer to a question, he also showed us similar images for the 22nd century. John's last images were absolutely shocking, predicting three or four times as much warming as during the 21st century! But more about that later.

Some Activities of the Danish Pugwash Group

In the beginning, our Danish Pugwash Group was very small. Three of us, Tom Børsen Hansen, Jens-Christian Navarro Poulsen, and I, used to have lunch together once a week at the Ørsted Institute where all of us worked. Tom Børsen was my former student M.Sc. student, and he later helped me to teach the Science and Society course. Jens-Christian was the head of laboratory work at the Chemistry Department.

At that time, before his marriage and small children, Tom had enough free time to be very active, and he organized a Student Pugwash group that met regularly to discuss global problems. Later on, he had to give that up because of the duties of fatherhood.

When we were discussing possible activities at our weekly lunchtime meetings, Jens-Christian had the bright idea that we should invite Dr. Tadatoshi Akiba, the Mayor of Hiroshima, to visit Copenhagen. Dr. Akiba was the President of Mayors for Peace, an organization that was working very effectively for the abolition of nuclear weapons. Copenhagen was not a member of Mayors for Peace, and Jens-Christian thought that it ought to be.

Jens-Christian's idea turned out to be a wonderful one. By arranging for Dr. Akiba to visit several other countries in Scandinavia, we were able to get the Mayors for Peace organization to support his travel expenses. We were also able to persuade the Lord Mayor of Copenhagen, Ritt Bjerregaard, to join Mayors for Peace, despite a Danish law that forbids mayors from expressing themselves on foreign policy issues.

In connection with Dr. Akiba's visit, we also arranged a day of peace education at Copenhagen's Open Gymnasium. About 15 people from various branches of Denmark's peace movement arrived at the gymnasium at 7.00 a.m., and between 8.00 and 10.00 they talked to 15 groups of about 25-50 students about topics related to peace. At 10.30, all 500 students assembled in a large hall, where Dr. Akiba gave an address on abolition of nuclear weapons. A chorus from the gymnasium sang, and finally there was a panel discussion. The students were extremely enthusiastic about the whole program.



Figure 16: At Jens-Christian's suggestion, we decided to invite Dr. Tadatoshi Akiba, the Mayor of Hiroshima, to visit Copenhagen.



Figure 17: Minister of Education Bertel Haarder.

The success of our 2007 effort made us want to do something similar in 2008, and perhaps to broaden the scope. Therefore we wrote to the Danish Minister of Education, Bertel Haarder, and proposed that October 24, United Nations Day, should be a theme day in all Danish schools and gymnasiums - a day devoted to the discussion of global problems and their solutions. We received a very kind reply. The Minister said that he thought our idea was a good one, but that he did not have the power to dictate the curricula to schools. We needed to contact the individual schools, gymnasiums and municipalities.

In the autumn of 2009 we arranged a United Nations Day program on October 24 at Sankt Ann Gymnasium with the cooperation of Nørre Gymnasium. We offered prizes to drama students at the two gymnasiums for the best peace-related dramatic sketch, a condition being that the sketches should be performed and judged before a large audience. Our judges were the actress Mia Lyhne, Johan Olsen, the lead singer of "Magtens Korridorer" and the dramatist Steen Haakon Hansen. The students' sketches and the judges speeches about the meaning of peace were very strong and moving. Everyone was very enthusiastic about the day. The judges have said that they would be willing to work with us again on peace-related cultural events.

In 2010, with the help of the Hermod Lannung Foundation, we offered student peace prizes to the students in 9 Danish gymnasiums. In 2011, the Hermod Lannung Foundation has given us sufficient funds to offer United Nations Day Student Peace Prizes at 11 Danish gymnasiums. We hope that the 2011 projects will be as exciting as they have been in previous years. We also hope that we will be able to continue and perhaps expand the project in the future.

One of the greatest benefits of Dr. Akiba's visit was that it brought us into contact with a Japanese-Danish Buddhist group called SGI Denmark. (For a description of SGI, see the book review on page 45 of this volume). Getting to know and cooperate with SGI Denmark and its leaders, Jan Møller and Mark Kamio, as well as many others in the organization, has been a great joy to me personally, and it has greatly helped the work for peace of our Danish Pugwash Group. Like the Quakers, and a few other religious groups, SGI is dedicated to working courageously and actively for peace, international understanding, and the total abolition of nuclear weapons.

We soon found that it was convenient to have our Pugwash meetings at SGI Denmark's beautiful Nordic Cultural Center, enjoying the wonderful hospitality of Jan and Mark and the others. I also began the practice of traveling to Askov College in Jutland twice a year to lecture about nuclear dangers to visiting students from the Sokka University, Tokyo. Also, for three years in a row, I had the privilege of being invited to give a half-hour speech on Hiroshima Day (August 6) at SGI Denmark's annual summer course. It was an enormous pleasure to speak to the 400 or so enthusiastic SGI members assembled for the course.

Kjeld Aakjær, who advised the Baltic NGO Forum, came quite regularly to our Danish Pugwash meetings. He called our attention to the Hermod Lannung Foundation. Kjeld forcefully told us that in order to make a political impact, we had to hold large meetings at the Danish Parliament, and he told us that the Lannung Foundation supported such projects.

This was good advice indeed. We followed it, and with the help of the Lanning Foundation, we organized many large conferences and smaller meetings at the Danish Parliament. Over many years, the Hermod Lannung Foundation has also supported a project where we offer students at Danish gymnasiums Student Peace Prizes for projects related to the United Nations, to world peace, and to the solution of global problems. The projects are presented on United Nations Day (October 24) before a large audience of other students



Figure 18: Hans Blix addressing a conference on "Strengthening the Nuclear Nonproliferation Treaty and the International Atomic Energy Agency", which we organized at the Danish Parliament. To his right are Jens-Christian, myself, MP Holger K. Nielsen, Hans K. Kristensen, and Ambassador Ali Soltineah.



Figure 19: The audience listening to Hans Blix.



Figure 20: Alyn Ware of New Zealand, the Global Coordinator of Parliamentarians for Nuclear Non-proliferation and Disarmament, together with Jens-Christian Navarro Poulsen at the Danish Parliament.



Figure 21: United Nations Day at the International College in Helsingør.



Figure 22: United Nations Day at Rysensteen Gymnasium.

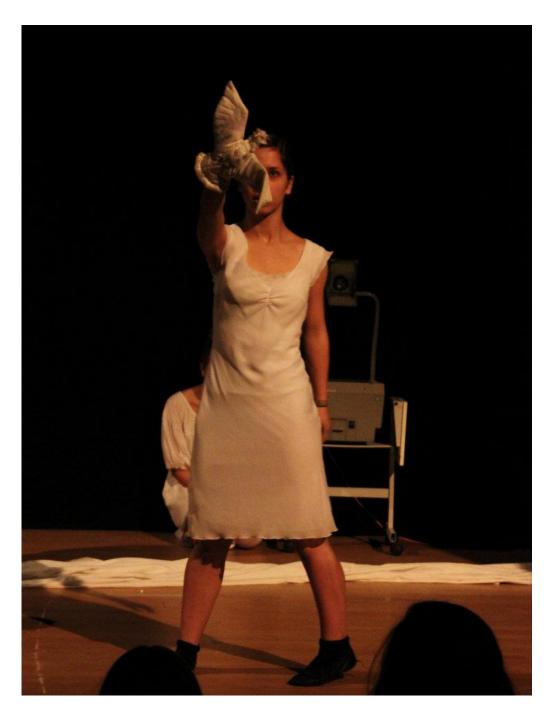


Figure 23: United Nations Day at Sankt Annæ Gymnasium.



Figure 24: A flag flying in front of Sankt Annæ Gymnasium on United Nations Day.



Figure 25: A painting representing the work of the United Nations. It won first prize at a UN Day Student Peace Prize event.



Figure 26: We arranged for survivors of the destruction of Hiroshima to meet Copenhagen's Cultural Mayor, Pia Allerslev.



Figure 27: An SGI event in which I participated. On the right are Jan Møller and the famous actress Mia Lyhne.



Figure 28: Another SGI event: Hiroshima Day at Askov College. In the front row, from left to right, we see the Japanese Ambassador and his wife, Tom Børsen, myself, Maj Britt Theorin President of the International Peace Bureau, Caecilie Buhmann, and Maj Britt's husband. On the far right are Jens Junghans, Mark Kamio and Jan Møller. Holger Terp can be seen just behind Maj Britt Theorin.



Figure 29: One of the wonderful students from Soka University in Tokyo. Two times a year for many years I lectured to them on the history of Pugwash Conferences, and the current situation in the struggle to abolish nuclear weapons.

In the spring of 2013, we organized a renewable energy symposium at the University of Copenhagen's Alexander Hall. The symposium took place on the 9th of March, 2013, almost exactly two years after the Fukushima disaster. It aimed at increasing cooperation between Denmark and Japan in the field of renewable energy. This aim included both academic and research cooperation, and also cooperation between companies. The program for the symposium is given below:

Program

15.00-15.05: Welcome

15.05-15.20: His Excellency Mr. Toshio Sano, Ambassador of Japan

15.20-15.40: Prof. Bent Sørensen, Director, Energy, Environment and Climate Research Group, Roskilde University

15.40-16.00: Prof. Peter Hauge Madsen, Head of Department, Department of Wind Energy, Technical University of Denmark

16.00-16.30: Coffee break

16.30-16.50: Prof. Søren Linderoth, Head of Department, DTU Energy Conversion, Technical University of Denmark

16.50-17.30: General Discussion

The Danish Peace Academy

I must also mention my involvement in the Danish Peace Academy, an organization that was founded by Holger Terp. Holger completed his education as a librarian in 1992. In 1996, he participated in a course on "Internet and Presentation Technique" at the Academy of Fine Arts in Copenhagen. However, in 1999 he suffered a stroke, which made him blind in one eye and almost blind in the other. The stroke also affected Holger's speech, so that it was difficult to understand him when he talked. Instead of giving up, as many people would have done, Holger resolved to devote the remainder his life to the cause of world peace. Despite his severe handicap, he has achieved almost incredible results.

Holger's greatest achievement has been to found the Danish Peace Academy and to single-handedly create its enormous website. The website contains more than 70,000 files related to peace, in Danish, English and German, and it is currently visited by approximately 4,000 different people each day. Many of the visitors are from schools and universities in various parts of the world, who use the information on the website as a part of their studies.

In creating his website, Holger has used both his training as a librarian and the knowledge that he gained from the 1996 course at Copenhagen's Academy of Fine Arts. As a result, many parts of the website have great visual beauty because of the liberal use of images. For example, one can enjoy Holger's "Greenham Common Songbook", which is an account of the successful efforts of the woman's peace movement in England to prevent common land at Greenham from being used as a base for nuclear weapons. The songbook is a piece of history, illustrated not only by the songs, which the visitor to the website can hear performed by such artists as Peggy Seeger, but also by countless beautiful posters and photos from the era. Other special features of the website are numerous books, articles, poetry and song collections, a peace-related encyclopedia, and a timeline showing the history of the peace movement, from the middle ages up to the present.

Holger himself is the author or editor of numerous books, and he has translated Gandhi's autobiography into Danish. The example of Gandhi's life has always been a guide for Holger, and perhaps Holger's life can be a guide for our own efforts, as we strive to work for peace. If he could achieve so



Figure 30: Ruth Gunnarsen. Like myself she is a World Federalist. I had known her in this context ever since I came to Copenhagen. One day in 2004, she telephoned to me and said that the members of the Danish Peace Academy wanted me to become their new Chairman.



Figure 31: Holger Terp receives a special monetary award and symbolic olive tree for his lifetime efforts from former Member of the European Parliament Else Hammerich at the Center for Conflict Resolution in Copenhagen.



Figure 32: Thom Hartmann. He contacted me because of my articles about dangers from the methane hydrate feedback loop. I realized that his video on the subject is enormously important, and I have been promoting it ever since. The video can be found by typing Thom Hartmann Last Hours into a search engine.

much with such a severe handicap, then the rest of us ought to be able to do something too.

Some final remarks

Many thoughtful people realize that the 21st century is a time of crisis for civilization. Dr. Jens Junghans, whose opinions I greatly respect, points to an ecological megacatastrophe that will result if humans do not stop their destruction of our fragile global environment. I agree with him completely, but would add that nuclear war is also a threat, both to human civilization and to the biosphere. None of us asked to be born at a time of crisis. But we have been born at such a time, and history has given us an enormous responsibility. If we do not work with courage and dedication to save our beautiful world for future generations, all the treasures that past generations have given us will be lost.

What are the great tasks that history has given to us? Where true democracy has decayed into oligarchy, democracy must be restored. Global population must be stabilized, and in the long run, reduced. Nuclear weapons must be completely abolished. The institution of war must be abolished by turning the United Nations into a federation. Our consumption of fossil fuels must quickly end, through changes in lifestyle, and through an all-out effort to rapidly develop renewable energy.

Soldiers in war are asked to give their lives for their countries. We, who are opposed to war, must be equally willing to devote our lives to a cause - the cause of saving civilization - the cause of saving the the biosphere - the cause of saving the future.