II. BERTRAND RUSSELL AND THE PUGWASH MOVEMENT: PERSONAL REMINISCENCES

JOSEPH ROTBLAT

An encounter in a television studio

My first meeting with Bertrand Russell, on 13 April 1954, was on an auspicious occasion: a special BBC television programme, entitled "The Hydrogen Bomb".

Nearly a decade back, I had been greatly impressed by Russell's perspicacity, when in a speech in the House of Lords, in November 1945 (three months after the Hiroshima bomb), he had predicted the development of the hydrogen bomb. He had had no idea at that time that research on that weapon had actually been going on; a fact known to me from my Los Alamos days. By 1954, the H-bomb was manufactured and began to be tested by both sides.

The Russian test of a fission bomb, in August 1949, came as a terrible shock to the military and political leaders of the United States; they believed that it would take decades for the Soviet Union to make it, if ever. Of course, the detailed information about the design of the Nagasaki bomb, provided by Klaus Fuchs and other spies, was of great help and enabled the USSR to accomplish the task in a shorter time. Anyway, the loss of the nuclear monopoly caused a panic in the USA, and led to a crash programme to develop the H-bomb. But this time the Russians were right on the Americans' heels.

The first US test of a true hydrogen bomb, with a yield of 15 megatons (the explosive yield of the Hiroshima bomb was 15 kilotons), was carried out on the Bikini Atoll on 1 March 1954. A Japanese fishing boat, the *Fukuryu Maru* (*Lucky Dragon*) was showered with its radioactive fall-out. One member of the crew subsequently died from radiation exposure.

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This episode became a major news item and the public wanted to know more about the H-bomb. Hence the BBC programme, for which top-notch personalities were invited to discuss various aspects of this development: military, strategic, political and ethical; the last in a fascinating dialogue between the Archbishop of York and Bertrand Russell. I—the youngest and least known—was asked to start the programme with an explanation of the physics of the bomb and its effects.

It was at the dinner given for all participants by the Director-General of the BBC that I had my first conversation with Russell. After the programme he came to congratulate me on my performance, and to tell me that he had learned much from it.

As for myself, I became rather unhappy about my presentation as time went on. In my talk I had accepted the official line about the make-up of the H-bomb, namely, that it was a two-stage device: a fission stage, which produced the necessary high temperature for the ignition of the thermonuclear reaction, in the second stage. Thus, I had told the British public that whereas the heat and blast effects of the H-bomb were 1,000 times greater than those of the Hiroshima bomb, the radioactivity was increased very little; in other words, that it was a "clean" bomb.

A few months later I met a Japanese scientist, Professor Yasushi Nishiwaki, who had carried out measurements of the radioactivity on the *Lucky Dragon*. At that time I was working on the biological effects of radiation, and I was interested in his findings. I was greatly puzzled when analyzing the data: I found that it did not fit at all the model of a clean H-bomb. Gradually, I came to the conclusion that this must have been a three-stage bomb: fission-fusion-fission. It contained layers of uranium-238 in which the fast neutrons from the second stage produced more fissions. It was in fact a very dirty bomb, with the radioactivity hugely increased, by nearly the same factor as the blast and heat.

I felt badly about inadvertently misinforming the British public. I was also getting worried about the health hazard from the radioactive fall-out of testing large thermonuclear weapons. When later the US Atomic Energy Commission issued a statement implying that there was no health hazard, I felt that I must inform the public about my findings. Despite an attempt by the British government to stop me, I did publish the paper. It turned out to be a sensation: the mass media picked up the story and gave it much publicity. Testing of nuclear weapons became a matter of public concern and mass campaigns.

A Christmas broadcast leading to a manifesto

I kept Lord Russell informed about my "detective" work. He was becoming more and more agitated about the danger of a thermonuclear war and its catastrophic consequences, arising in particular from the long-term effects of the radioactive fall-out. He decided to express his fears in a broadcast on BBC radio, on 23 December 1954. Under the title "Man's Peril", Russell drew the attention of the general public to the grave dangers to humanity that have arisen from the development of nuclear weapons.

The broadcast made a deep impression and Russell received many letters supporting the ideas contained in it. Encouraged by this, Russell decided on a new initiative: to persuade a number of eminent scientists from all over the world to join him in a statement warning governments and the general public and, in particular, calling on the scientific community to convene a conference on steps to avert the danger.

A similar action had been contemplated by scientists for some time back. In my capacity as Executive Vice-President of the Atomic Scientists' Association in the UK, I had been in correspondence with officers of the Federation of American Scientists, in particular with Eugene Rabinowitch (the editor of the *Bulletin of the Atomic Scientists*), about organizing an international conference of scientists. Quite early we realized that such a conference would be useful only if we could ensure the participation of scientists from the other side of the iron curtain. However, this was impossible during Stalin's life, when relations between Soviet and Western scientists hardly existed. We had to await the end of the Stalin regime, in the mid-fifties, before contact could be established. Russell's initiative was thus very timely.

The most eminent scientist alive at that time was Albert Einstein, and Russell wrote to him to seek his advice about the statement. Einstein immediately responded enthusiastically. He asked Russell to draft the statement and send it to him for his signature. Russell did this promptly.

The date was 18 April 1955. Lord Russell was flying from Rome to Paris, when the captain conveyed to the passengers the news he had just received, that Einstein had died. Russell was shattered; he feared that without Einstein's sponsorship the whole project would collapse. But when he arrived at his hotel in Paris, there was a letter awaiting him, a letter forwarded from London, with Einstein's signature. Signing the statement was one of the last acts of his life. This gives the statement—

which became known as the Russell–Einstein Manifesto—extra poignancy: the last message from the man who symbolized the acme of human intellect, imploring us not to allow our civilization to be destroyed by human folly.

After receiving Einstein's endorsement, Russell began the task of procuring other signatures to the statement. Although he was seeking Nobel Laureates, more important to him was that the signatories to the Manifesto should be politically balanced, and come from the left and the right of the political spectrum. There were not many Nobel Laureates in the Communist and developing countries, therefore Russell invited several non-Nobelists from the Soviet Union, China and India; however, for various reasons, they did not sign. The only signatory from a Communist country, but not a Nobel Laureate, was Leopold Infeld from Poland; and the only Nobel Laureate from the West who was a declared member of the Communist Party was Frédéric Joliot-Curie.

Most of the signatories, as is the case for eminent people, were of fairly advanced age; the average age of the eleven signatories was 62 years. At 46, I was the youngest, but I was closest to Russell. In his introductory statement at the Press Conference he predicted the award of the Nobel Prize to me, but it took 40 years for it to come true!

For the proclamation of the Manifesto, Russell decided to call a Press Conference in Caxton Hall in London. This famous building contains many rooms for such conferences, of different sizes. Initially, a small room was booked because Russell feared that not many of the media would be interested. But somehow the word got round that there would be an important statement, and a larger room was reserved. Eventually, by Saturday, 9 July, the largest hall was booked, and on the day it was packed with representatives of newspapers, radio and TV from all over the world.

The preceding week I spent with friends in Bray, a small village in Ireland. One evening, after returning from a visit to Dublin, I found a message to report immediately to the police station. With some trepidation—I couldn't think of any misdemeanour I had committed that called for action by the Irish police—I hurried to the station, only to find that Bertrand Russell had phoned asking me to ring him urgently. The telephone at the police station was the only one in the village.

Russell's request was that I should take the chair at the Press Conference. He was worried that there might be technical questions about the

H-bomb which he would be unable to answer, and I was the only one among the signatories to have worked on the Manhattan Project. Since the *Panorama* programme on the BBC the previous year he was confident that I would manage to answer difficult questions.

After Russell had read the Manifesto there were questions, plenty of them. Russell handled them beautifully and soon won over the audience with his masterly and witty replies. It became quite evident that the media realized the far-reaching significance of the Manifesto. Indeed, the media all over the world gave it excellent coverage, with the result that hundreds of letters and cables, from individuals and groups, came pouring in from many countries expressing approval and offering support. It was evident that the Manifesto touched a sensitive cord in the minds of the general public and the scientific community.

In ringing phrases, in beautiful and moving prose from the pen of Lord Russell (after all, he was a Nobel Laureate in Literature), the Manifesto called on governments and the general public to take heed of the dangerous situation that had arisen from the progress of science in a world engaged in the titanic struggle between Communism and anti-Communism:

> We are speaking on this occasion, not as members of this or that nation, continent or creed, but as human beings, members of the species Man, whose continued existence is in doubt....
>
> Almost everybody who is politically conscious has strong feelings about one or more of these issues; but we want you, if you can, to set aside such feelings and consider yourselves only as members of a biological species which has had a remarkable history, and whose disappearance none of us can desire.
>
> We shall try to say no single word which should appeal to one group rather than to another. All, equally, are in peril, and, if the peril is understood, there is hope that they may collectively avert it.
>
> We have to learn to think in a new way.

Pugwash Village—the venue for a new movement

The Manifesto called on scientists to assemble in conference to discuss ways to avert the danger. Within a few days, a letter was received from a Mr. Cyrus Eaton in Ohio. Addressed to Russell it began: "My Lord: Your brilliant statement on nuclear warfare has made a dramatic world-wide impact", and went on with a specific offer: "Could I help toward the realization of your proposal by anonymously financing a

meeting of the scientists in your group at Pugwash, Nova Scotia? I have dedicated a comfortably equipped residence there by the sea to scholarly groups." Initially, we did not pay serious attention to this offer. A trivial reason was that some of us thought the letter was a hoax. In England, the name Pugwash was well known. It was the name of a figure of fun in children's books and a comic character in a television cartoon: Captain Pugwash the pirate!

The serious reason was that plans had already been laid to hold the Conference in India, where Prime Minister Jawaharlal Nehru was very keen on a conference in New Delhi and had offered hospitality for it. Indeed, letters of invitation had been sent out for the Conference to be held in December 1956 in New Delhi. However, two international events—the Suez crisis and the Hungarian uprising—made the political situation unstable, and Russell decided to cancel the meeting.

After the situation calmed down, we resumed the plans for the Conference. The support from India was no longer available and we had to find other ways to cover the costs of the meeting. At that stage I remembered the letter from Cyrus Eaton. I looked up an atlas and found that Pugwash really existed in Canada. Further enquiries elicited that Mr. Eaton, who was born in Pugwash, was a very successful businessman and industrialist, as well as a philanthropist with keen cultural interests. Russell agreed that we should approach him. A cable inquiring whether his offer still stood brought an immediate positive response, and so we began preparations for the Conference to be held in Pugwash, in July 1957. I should add that an offer of financial help had also been received from the Greek ship magnate, Mr. Aristotle Onassis, who wanted the conference to be held in Monaco, or aboard his yacht. Bertrand Russell refused this offer, saying that he wanted nothing to do with Onassis' money. (Much later, in 1987, Pugwash was awarded, and accepted, the Olympia Prize of the Onassis Public Benefit Foundation.)

The letters of invitation to the meeting in Pugwash were signed by Bertrand Russell, but he himself did not participate in it; his state of health did not permit him to make long journeys. In a tape recording which was played at the start of the Conference he designated the other two British signatories of the Russell–Einstein Manifesto, Cecil Powell and myself, to act as his deputies in running the Conference.

Actually, there was another British scientist who helped in the preparatory work. Dr. Eric Burhop was a distinguished physicist but was

known to be on the far left of the political spectrum and Russell was afraid that Burhop's involvement might be harmful to the project. Thus, Burhop's name does not appear on the list of participants in the First Conference; he was in Pugwash but he was listed as a member of the scientific staff.

Like everything else, a political reputation is relative. When Frédéric Joliot-Curie was invited to sign the Russell–Einstein Manifesto, he suggested a number of changes which were not acceptable to Russell. Eric Burhop had been acting as a go-between in these negotiations. When no agreement could be reached, Joliot-Curie sent his deputy, Pierre Biquard, to London, to complete the negotiations. Lord Russell told me afterwards that compared to Biquard, Burhop was the bluest of Tories!

Steering clear of outside interference

To understand Russell's attitude one has to recollect the vehement anti-Communist climate of the time, particularly in the United States, in the McCarthy period. Anyone in the West who was willing to sit down with Soviet scientists and talk about peace and disarmament was immediately branded as a fellow traveller, if not as an outright Communist. The participation from the West of persons known for their extreme left sympathies would certainly have led to the Movement being branded as a Communist front organization.

Participants who could not be accused of being fellow travellers, were slated as being naive, dupes, and easy prey to Soviet propaganda. This perception persisted for quite a while after the First Conference. There was a widespread opinion in the West that we were being manipulated by the KGB to support Soviet policies.

As a matter of fact, clumsy attempts to do this were made by the Soviet government but we saw through them easily. I became aware of this even before our arrival in Pugwash for the First Conference. The foreign participants travelled first to Montreal, and from there we flew in Mr. Eaton's private jet to Moncton in New Brunswick. The final sector of the journey to Pugwash in Nova Scotia was by car which in those days took several hours. It so happened that I shared a car with Alexander Topchiev, the head of the Soviet group, and a Mr. Vladimir Pavlichenko who—we were told—was Topchiev's interpreter. It did not take me more than half an hour in the car to realize that Pavlichenko had an additional assignment. His role became clear to everybody at the

very first session. Topchiev, who did not speak any English, made an important statement in Russian, which Pavlichenko translated. But in doing this he embellished it generously with party propaganda. He didn't reckon with the presence of Eugene Rabinowitch, whose mother tongue was Russian (he was born in what was then—and is now again—St. Petersburg). After Pavlichenko had finished, Rabinowitch told him bluntly that this was not quite what Topchiev had said, and then proceeded to give the true translation. Afterwards Pavlichenko was much more circumspect.

In later meetings there were a few other participants from the Soviet Union who were obviously sent to push the party line, but the majority were genuine scientists and behaved as such.

In this connection I want to recall an incident that occurred early in the history of Pugwash. The Soviet government planned a World Congress on Disarmament in Moscow, and Pugwash was invited to send delegates to it. This request was formally presented to the Continuing Committee (the body charged with organizing Pugwash activities) by Alexander Topchiev. His argument was plausible; Pugwash was pursuing the same aim, nuclear disarmament, as the proposed Congress, so why not join forces. Several members of the Continuing Committee were inclined to accept the invitation, but I was strongly opposed to it. I knew that participation in the Congress—an obvious propaganda exercise—would discredit us in the West. Eventually my view prevailed and we decided not to have anything to do with the Congress. After the Committee meeting was over Topchiev took me aside and thanked me warmly for opposing his own proposal. He was a member of the Communist Party, but he realized the importance of the Pugwash Movement as a channel of communication between East and West and the overriding need for it not to lose credibility in the West.

Attempts to influence us politically were not one-sided. The governments in the USA and UK were initially suspicious of us, but after watching us for a few years they became convinced that we were genuine, not an instrument of Soviet propaganda. They also realized the great importance of the channel of communication opened by Pugwash, and so they tried to use it for their purposes. In the UK I was embraced by the Establishment, I began to be given unsolicited advice about who should be invited to Conferences, what topics we should discuss, what our line should be, and so on. To their chagrin I was as resolute against

the takeover bid from the West as I had been to the overtures from the East. It was only recently that I came across a letter from a high official in the British Foreign Office, complaining that I was not consulting them about the participants in Pugwash Conferences: "... the difficulty is to get Prof. Rotblat to pay any attention to what we think.... To get a new organizer for the British delegation seems to be the first need, but I do not know if there is any hope of this."

The First Conference—a scientists' gathering

I have run well ahead of events in my narrative, but this was essential in order to convey the kind of anxieties and fears felt by Russell and his helpers when organizing the First Conference in July 1957. This was a historic encounter, the first time that eminent scientists from East and West met to discuss what essentially were highly sensitive political issues, issues on which there was a big divergence of views even in the scientific community in the West. We were worried that in the atmosphere of hostile propaganda of the Cold War, this divergence would be exacerbated in a confrontation with Soviet scientists. When the 22 scientists from ten countries, embracing both sides of the political divide (the USA and USSR, UK and China, France and Poland, Austria, Australia, Canada and Japan) met in the Pugwash village, we had no clear vision that this was the start of a new world movement. We thought of it as a one-off event, because we estimated that there was more than an even chance that the meeting would break up in disagreements.

That it did not come to this, that—on the contrary—we found ourselves in broad agreement on the main aspects of the agenda, was due to several factors but, in my opinion, the main reason was that this was a meeting of scientists. It was not a coincidence that about 70 per cent of the participants were physicists, a number of whom had worked on the Manhattan Project during World War II. The fact that this was a meeting of scientists of international repute was of significance in two ways. First, we knew one another from our scientific work, either personally or from reading our scientific publications, and we had confidence in each other's scientific integrity. We were able to build on this confidence, when discussing problems that were to a large extent political in nature. Second, we were decided from the beginning that we would approach these problems in the scientific spirit of rational analysis and objective inquiry. In the main we have kept to this resolution ever since.

Making another aside, it seems to me that this latter point is one of the most important characteristics of the Pugwash Movement. I believe that this, and the mutual trust and friendship built up over the years between Pugwashites, are chiefly responsible for our success, for the fact that we are still going strong after more than 40 years. Throughout these years we have never experienced a serious crisis; there has been no case of a participant walking out from a meeting; there have been no splinter groups; none of the internal squabbles and dissensions that bedevil other organizations with similar objectives and often lead to their early demise, or to their becoming sterile.

In ascribing our success to the fact that we are a group of scientists I am not suggesting that scientists are a superior class of human beings, that they have more wisdom and fewer faults than other groups in society. I put it down to their training in the scientific method, to the scientific tradition of appraising a problem without prejudice, but with respect for facts. It is this that makes scientists well qualified to tackle the kind of issues we take up at Pugwash.

Three kinds of issues were on the agenda of the First Conference, which I regard as the immediate, the long-term, and the fundamental. The three items were: (1) nuclear energy hazards in war and peace; (2) international control of nuclear energy; (3) responsibility of scientists. The first item was highly topical at that time. With the testing of ever larger hydrogen bombs the general public had become greatly concerned about the consequences of nuclear war and the long-term effect of radioactive fall-out. At that time the US and UK governments were keen on testing and tended to pooh-pooh any health hazards from them. This resulted in much disagreement in the scientific community in the West, with the "establishment" scientists generally playing down the effects. I was viciously attacked in the House of Lords by Lord Cherwell, the wartime Scientific Adviser to Winston Churchill, for claiming that even small radiation doses carry a cancer risk.

When we began the discussion on that item at Pugwash, there appeared to be a divergence of opinion between the Western and Soviet scientists about the magnitude of the radiation hazard. But we soon established that the difference was a matter of approach rather than of substance, and we were quickly able to agree on the text of a substantive report.

I should add that the issue of radiation hazards figured prominently

on the agendas of several later Pugwash Conferences. Our call for a ban on testing was heeded, at least partially, when President Eisenhower and Prime Minister Macmillan changed their policies on testing. The Partial Test Ban Treaty of 1963 was one of the first achievements of Pugwash. We did not know about the significance of our contribution until nearly 30 years later, when Lord Zuckerman—at the time Chief Scientific Adviser to the British Cabinet and directly involved in the official negotiations—said at a public meeting: "... The pressure brought to bear by Pugwash [on the nuclear test issue] played a real part in pushing us along, and seeing the conclusion to a treaty which ... did help to prevent the proliferation of nuclear weapons at the time."

No such progress could be expected on the second item; the control of nuclear arms. But we succeeded in clarifying the issue and specifying the items for future debate. The programme agreed then became the major topic for Pugwash for many years to come:

(1) The lessening of tensions among nations and the promotion of mutual understanding among their peoples.
(2) The ending of the arms race.
(3) The provision of reasonable safeguards in the arms control system to give substantial protection and build up mutual confidence.
(4) The initiation of a step-by-step process to develop as satisfactory a set of controls and safeguards as practicable.

The third item on the agenda, the responsibility of scientists, is fundamental to Pugwash and we came back to it time and time again. At the First Conference we agreed on a list of eleven points of common beliefs among scientists without regard to political and economic systems. The last point is particularly noteworthy, considering that it was accepted by the scientists from countries with political regimes based on rigid dogmas: "Science develops most effectively when it is free from interference by any doctrine imposed from the outside, and permitted to question all postulates, including her own. Without this freedom of scientific thought, and the freedom to exchange information and ideas, full utilization of the constructive possibilities of science will not be possible." All those ideas were included in the public statement issued at the end of the Conference. The text of the statement was agreed by all but one of the scientists who were invited by Russell. The one exception was Leo Szilard, who traditionally abstained from public statements,

although substantively contributing to their formulation. (There was another abstainer, John Foster, who had been invited by Cyrus Eaton; he abstained largely for personal reasons.)

Extramural activities of Cyrus Eaton

Before recounting the follow-up to the First Conference some comments need to be made about the role of Cyrus Eaton in Pugwash activities.

Much of the credit for the success of the First Conference is undoubtedly due to the congenial atmosphere created by our host Cyrus Eaton and the hostess Anne Jones.—She was a friend of his daughter, and like him she was widowed. They married a few months later, having been brought close together by the mutual interest they found in the topics of the Conference. Anne, who was an invalid (a victim of polio, and confined to a wheelchair), was a delightful personality, full of *joie de vivre,* and her sparkling conversation captivated her audience. The Russian scientists fell under her spell and soon the Eatons built up a friendship with them, which deepened at subsequent meetings.

Apart from the First Conference, Cyrus Eaton financed the Second Conference held in 1958 in Lac Beauport, and the Fifth Conference, in 1959, on biological and chemical warfare, again in Pugwash. To this point, he kept strictly to his role as a gracious host, without any interference in our discussions. But at the 1959 Conference he began to interfere, by insisting on changes in the wording of the public statement from the Conference. Generally, he wanted Pugwash to adopt a much higher public profile than we were prepared to do. In his efforts to establish closer relations with the Soviet Union, he became very friendly with Nikita Khrushchev with whom he exchanged expensive gifts: he sent Khrushchev a valuable steer from his stock and received a "troika" of horses in return.

In his political campaigns Eaton's enthusiasm and zeal outpaced us. This shrewd businessman allowed his convictions to carry him further and faster than the supposedly naive and starry-eyed scientists dared to go. Profoundly shaken by the grim consequences of a nuclear war, which were spelled out at the First Pugwash Conference, Cyrus Eaton embarked on a huge campaign to sway public opinion and compel the US government to take specific measures to halt the arms race, measures which included détente with the Soviet Union and recognition of China.

From the perspective of 40 years, these objectives seem modest and prosaic, but in those days they were considered highly radical, and Cyrus Eaton was depicted almost as a traitor to his country. He was the subject of vicious attacks from the hawks, and was savagely assailed by the Committee on Un-American Activities. But he also received accolades for his activities; these too reflected the unique blend of his personality. Thus, the United States voted him Businessman of the Year, while the Soviet Union awarded him the Lenin Peace Prize in the same year. Bertrand Russell was sceptical about the latter. In a letter to me he wrote, "I have been wondering what your emotions are on the occasion of Cyrus Eaton's being awarded the Lenin Peace Prize. I hope they are thoroughly Christian."

More serious was the concern of some of the US Pugwashites that the public statements by Cyrus Eaton could be interpreted as representing the views of Pugwash. In fact, the US members of the Continuing Committee felt obligated to publish in September 1959 a statement setting out the facts about the relationship between the Pugwash Conferences and Mr. Eaton. They said:

> Mr. Eaton generously accepted the cost of three out of five conferences held to date, and the organizers and participants owe him gratitude for having been a generous host, without attempting to influence the composition, program and conclusions of the Conferences. However, as Mr. Eaton has come to play an increasingly active and controversial role in political affairs, the scientists felt that his exclusive support of their conferences may place them in the wrong light,

and they concluded,

> We are sorry that an encouraging cooperation between a generous businessman, eager to assist the scientists of the world in their efforts to prevent the misuse of science for the destruction of mankind, and to further its use for constructive purposes, has been made impossible by his reluctance to keep his support of the scientists' conferences clearly separated from his increasing involvement.

In order to preserve its independence of aims and action it was decided not to ask Mr. Eaton for further financial support. The US members of the Continuing Committee went further, insisting on dropping the word Pugwash from the name of the Movement. They suggested that it should be called COSWA (acronym of "Conferences on Science and World Affairs"). There was opposition to this from the

other members of the Committee. Bertrand Russell had grown fond of the name Pugwash, to which jokingly he had given an English translation: Houndsditch (a London district). The Americans then suggested a compromise: P-COSWA, with the P silent! This too was not acceptable, and eventually it was agreed by all to keep the original name "Pugwash Conferences on Science and World Affairs", often abbreviated to "The Pugwash Movement".

In the course of time the relations with the Eatons improved and they were warmly greeted when they attended some later Conferences as guests. After the death of Cyrus in 1979, Anne took over and the link with the Pugwash Movement became closer. She was hostess to a gathering in the Pugwash village in 1982, to commemorate the 25th anniversary of the First Conference. We continued the tradition of holding meetings every five years or so. I greatly cherish the memory of these encounters with Anne Eaton, with their convivial atmosphere and stimulating conversations on the porch of the Eaton Lodge and—the *pièce de résistance*—the lobster dinners. Despite her handicap she was very active; she even played croquet with me on the lawn. Her sudden death in 1992 was a grievous loss to all.

Mr. Eaton's grand-nephew, Dr. Giovanni Brenciaglia, then took over and hosted several Pugwash workshops. In July 1997 the whole Pugwash Council plus other guests, gathered in the Pugwash village to celebrate the 40th anniversary of the movement. Among other commemorative events was the unveiling of a plaque on the wall of the Masonic Temple, the building in which the meetings were held at the First Conference in 1957.

Decisions on Pugwash modalities

This brings me back to the First Conference. Encouraged by its great success it was unanimously decided, at the last session, to organize further meetings. For this purpose a Continuing Committee of five persons was set up: Lord Russell as Chairman, Cecil Powell and myself from the UK, Eugene Rabinowitch from the USA, and Dmitri Skobeltzyn from the USSR. The three UK members were the same that had prepared the First Conference, and it was felt that future meetings should continue to be organized from London. I became unofficially the executive secretary but shortly afterwards I was formally designated as the Secretary-General of Pugwash.

The first meeting of the Continuing Committee took place in December 1957, in my office at St Bartholomew's Hospital Medical College in London. This was a crucial meeting. We had to reach decisions about future activities, since no guidelines were given to the Committee about the nature, size or frequency of future meetings. Because of the importance of the decisions to be taken we invited a number of personalities to attend the meeting. Leo Szilard was among them.

The main discussion was about the nature of future meetings. In preliminary discussions with scientists in the USA, USSR and UK, three types of meetings were suggested:

Type A Large meetings to deal with general problems; they would issue resolutions aimed at the world at large.

Type B Smaller meetings to clarify the thinking of scientists themselves and to study the social implications of scientific progress.

Type C Still smaller meetings to discuss immediate political problems and directed primarily at governments.

In the lively debate on this item, a strong divergence of views emerged. Russell, who chaired the meeting, was in favour of type A meetings, while Szilard was vehemently for type C. Eventually we had to take a vote (the only time when the Continuing Committee took a decision by vote). By a small majority it was decided that the main activity would be of type C, with occasional meetings of type B. Later on, the type B meetings became identified as the Annual Conferences, while type C meetings became the Symposia and Workshops of which eight to ten are nowadays held each year.

The decision about the type of meetings led to decisions about their size and frequency. The Symposia and Workshops (nearly 200 of these had been held by the time of writing) have generally been small, with 25–30 participants; small enough for the participants to sit around a table facing each other. Basically they have served as a debating forum, without having the task of reaching agreements or making recommendations. They are held in private, not because of secrecy but in order to create an atmosphere conducive to a frank and uninhibited exchange of opinion. Original ideas, which often seem to be half-baked when first put forward, would have been inhibited if the media were present.

The Annual Conferences, of which 47 have been held so far (Pugwash is only 40 years old but in the early years more than one conference of

this type was sometimes held in one year), generally have 150–200 participants. Much of the discussions in these take place in Working Groups, of the same nature as the Workshops, but several plenary sessions are also held, and these are generally open to the media. A summary of the discussions and recommendations are issued after each Annual Conference by the Council—the body authorized to speak on behalf of Pugwash. The Pugwash Council, the renamed Continuing Committee, is now as large as the whole First Conference; it consists of 21 elected members (plus a few ex-officio members) from 22 countries. Its members are elected for five years at the Quinquennial Conferences which act as a sort of General Assembly of Pugwash.

The increasing scope of Pugwash activities necessitated a certain amount of formal organization; there are now four offices in London, Geneva, Rome and Cambridge, Massachusetts (in historical order), but the basic informal character has survived. It is an amorphous organization, with no formal membership: scientists are individually invited to each meeting. Flexibility and unconventionality continue to be the hallmarks of Pugwash.

CND *and Pugwash—a division of labour*

Although Bertrand Russell was initially in favour of Pugwash becoming a large movement of scientists issuing public statements, he later agreed that the decision we had taken to keep a low profile was wise. Although he was in favour of mass movements and direct action, he realized that there was also room for the private type of activity that Pugwash carried out.

This division of activities became clear after the start of the Campaign for Nuclear Disarmament. CND came formally into being at a meeting on 11 January 1958, when Russell was elected as its President, and I as a member of the first Executive Committee. Soon afterwards Russell and I had a serious conversation about our participation in the CND and Pugwash. He felt that the two organizations may sometimes diverge in the pursuit of their objectives, and that it would be in any case wasteful for both of us to be active in both organizations. As a result of this discussion I resigned from the CND Executive Committee after about one month, in order to concentrate on Pugwash.

Russell continued as Chairman of the Continuing Committee, but his increasing involvement in the Direct Action Committee, and later in the Committee of 100, made it difficult for him to find time for Pugwash. He participated in the Third Pugwash Conference in 1958. The main part of it was held in the Austrian resort of Kitzbühel, but the last part was in Vienna, and Russell came to it for a public session at which the Vienna Declaration, a statement of the objectives and principles of Pugwash, was promulgated.

In 1962 he took part in the Tenth Pugwash Conference in London. He was worried that he had become rather disreputable compared with the respectability that Pugwash had acquired. In his autobiography (Volume III) he described the event as follows:

> I was to speak about the founding of the movement and I warned my friends that I might be hissed—as I was fully convinced that I should be. I was deeply touched by being given a standing ovation when I rose to speak which included, I was told, all the participants, all, that is, save Lord Hailsham. He was present in his capacity as the Queen's Minister of Science. He was personally, I think, friendly enough to me, but, weighed down by office, he sat tight. (*Auto.* 3: 87)

The London Conference was the last Pugwash meeting in which Russell participated. But he continued to take a profound interest in our activities. I kept him fully informed and frequently consulted him about our plans.

After each Conference I would go to his house in Hasker Street to report to him on the Conference. Sometimes I would be accompanied by my colleague, Professor Patricia Lindop, who was Assistant Secretary-General of Pugwash. On one occasion she brought her baby boy, then about four weeks old. When Mark fell asleep, she took him upstairs and put him on Russell's bed. In the meantime Lady Edith Russell came home. When asked later whether she was surprised to find a baby on his bed, she replied: "No, with Bertie anything is possible!"

The affair of Ralph Schoenman

Anything may have been possible with Lord Russell, but not everything he became involved with was well judged. I refer to the affair of Ralph Schoenman which marred the last decade of Russell's life. Schoenman ingratiated himself to Russell by offering to work without pay, gradually making himself indispensable and eventually usurping to himself the right to act on behalf of Russell, often without even informing him about his actions. I had suspicions of Schoenman from the

beginning, and as I got to know him better these turned into certainty. He was definitely bad for Russell. I often thought that one could not have damaged Russell's credibility more, if the CIA had planted an agent for this purpose.

I conveyed to Russell my doubts about Schoenman. Russell answered that he shared some of my anxieties but he had no choice. There was so much to do, and he had neither the energy nor the money to do them: "This young man is full of energy and works without a salary; he has his faults but these are compensated by his zeal."

I made a considerable effort to acquire finances to pay for a secretary, to replace Schoenman, but without success. This failure inhibited me from further remonstrations with Russell. But when Schoenman's activities in the War Crimes Tribunal became outrageous I decided I must try again. I went to Plas Penrhyn, his house in Wales, and there, in the presence of Ralph Schoenman, I told Lord and Lady Russell about the terrible damage he was doing to them. Ralph was furious and stormed out of the room, banging the door behind him. Russell, who by that time began to be unhappy about Schoenman, was apologetic but still tried to defend him. However, in the last year of Russell's life he decided that enough was enough, and began steps to disassociate himself from Schoenman. In a memorandum written on 8 December 1969, two months before he died, Russell described in great detail his relations with Schoenman and the reasons why he had decided to disassociate himself completely from him.

The unhappiness with Schoenman made Russell sometimes appear undecided, leading to rumours that he was suffering from senile dementia. I know this to be completely untrue. My last visit to Plas Penrhyn was a few months before his death. He was by that time completely deaf and we had to communicate via Lady Edith whom he could lip-read. We were offered tea and I made a trivial comment on it, to which Russell responded with a half-hour non-stop discourse on tea, the whole history of its import to the UK by one of his ancestors, with detailed facts and figures. His mental faculties had certainly not failed him, even if the physical ones did. We discussed with him our plans to celebrate his 100th birthday at the 22nd Annual Pugwash Conference to be held in Oxford in 1972. He dryly chuckled: "With my recent phase of quietness, away from the public eye, perhaps I could be considered respectable enough to take part in Pugwash at Oxford." Alas he didn't make it.

What Pugwash has achieved

The Russell–Einstein Manifesto posed the question: "Shall we put an end to the human race; or shall mankind renounce war?" Throughout the years of its existence the Pugwash Movement has made valiant efforts to ensure that the human race does not come to an end by its own actions. During the Cold War period we had to tackle the immediate danger, and our efforts were concentrated on preventing a nuclear war and halting the arms race. This necessitated reaching agreement on treaties of limited value. Apart from the 1963 Partial Test Ban Treaty, these included the Tlatelcolco Treaty of 1967; the Non-Proliferation Treaty of 1968; the Anti-ballistic Missile Treaty of 1972; the Intermediate-Range Nuclear Forces Treaty of 1987; and the Comprehensive Test Ban Treaty of 1996. We were also involved in the negotiations for the Biological Weapons Convention of 1972; the Conventional Forces in Europe Treaty of 1990; and the Chemical Weapons Convention of 1993.

A number of non-governmental organizations were involved in the preparatory work for these treaties, and it is difficult to assess the credit due to a single group. But the role played by Pugwash was attested by many public figures, including Mikhail Gorbachev, who said, "Through its activities, due to its scientific and moral authority, Pugwash has contributed in a unique way to averting the military danger, has helped to stop the 'Cold War' and to achieve profound positive changes in the development of the world."

After the end of the Cold War and the abatement of the immediate danger, we directed our attention to the major objective: the elimination of nuclear war. More and more, we are also concentrating our efforts on the long-term objective: the elimination of all war.

The most important acknowledgement of our activities in the nuclear issue—the top accolade—came in 1995 in the award of the Nobel Peace Prize:

> ... for their efforts to diminish the part played by nuclear arms in international politics and in the longer run to eliminate such arms. (Norwegian Nobel Committee citation)

Epilogue

The acknowledgements and prestigious awards to Pugwash do not mean that we can now rest on our laurels. Our job is not yet finished.

We have still to convince the governments of the nuclear powers that they, and the rest of the world, will be better off without nuclear weapons; we have still to educate the public to realize that war—any war—must be eliminated; we have still to educate the scientific community that it must take responsibility for the outcome of its research. We know what the penalty would be if these objectives were not attained. The last paragraph of the Russell–Einstein Manifesto spells this out:

> 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.

The choice is still to be made but the portents are that we will choose life. We are gradually realizing the folly of war; we are slowly and painfully learning to solve our disputes by means other than military confrontation.

Bertrand Russell was fond of writing his own obituaries. In the preface to Volume III of his *Autobiography* he said that he was not sure whether it should be one of hope or one of fear. In the light of subsequent events, towards which his life work has contributed significantly, the hopeful version should be his epitaph:

> *The world's great age begins anew,*
> *The golden years return....*
> *Heaven smiles, and faiths and empires gleam,*
> *Like wrecks of a dissolving dream.*

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