Dr. A. Lacassagne - French scientist

Extract from an article which appeared in the April number of the review Trygee

'What conclusions are we to draw from the result of the Hiroshima, Nagasaki and Bikini explosions which constituted an experiment on thousands of human beings? First of all, that ionising rays have the same effects on our organism as on that of laboratory animals; man is even less resistant to total irradiation than rats and rabbits; and that from a certain point on wounds caused by radioactivity are quite fatal. Now this point is very low in terms of röntgens, the unit of measure used in radiotherapy. It suffices to point out that a dose of 500 röntgens is fatal to man, whereas the ionisation produced by the ionising rays liberated by the explosion of a plutonium bomb is of the order of hundreds of millions of röntgens.

'The research that has been carried out in many specialised laboratories over the past several years with the aim of preventing or curing the effect of radiation on living organisms has achieved very little in the way of results. We have succeeded in enabling some rats to survive after being exposed to 1,200 röntgens, though the fatal dose for them is normally 800 röntgens. But it is an illusion to suppose that we shall ever find a way of preventing, let alone curing, the instantaneous disintegration of cells vital to life when they are exposed to the enormously powerful radiation produced by atomic explosions.

'We must therefore hope that there will now be an end of experiments already numerous enough to have convinced specialists of the dangers they involve for the future of the human race.'

Professor Philippe L'Heritier - of the Science Faculty of Paris University

Extract from an article entitled 'A danger that must not be underrated' published in Le Monde of April 15-16, 1955

'...The properties of living matter are inscribed in the innermost molecular structures of appalling complexity. To correct an abnormal heredity in a human embryo would presuppose our being able to change selectively and in the direction we wanted all or at least a very large number of the cells of the defective parts of those organisms. We are certainly very far from being able to do this. Medicine and surgery have progressed to the point of enabling abnormal persons to live but they can by no means cure their heredity.

'The development of material civilisation is undoubtedly tending to create a combination of biological conditions for the human race which is disquieting: an ever more rapid elimination of natural selection, an anarchi growth of population, and, to top it all off, an artificial increase in the frequency of mutations. It is important that civilised peoples become aware of the danger to the survival of the species involved in this state of affairs. Undisputed master of the planet, and having only himself to fear now, man can perhaps dream of taking his own evolution in hand; but he will only be able to do so by submitting to biological laws. Preserving his heredity from the deleterious action of radioactivity is then the easiest aspect of this necessary adaptation.'

Professor Leopold Infeld - Polish physicist

Extract from an interview given to the Milan House of Culture on May 9, 1955

'The scientist must feel his responsibility with relation to weapons made on the basis of the theoretical and experimental principles worked out by him. In this aspect of his work the scientist has a double responsibility: that of a man who must

protect himself, his work, his family, his friends and the things he loves - in short, he cannot evade the responsibility that is incumbent on all other citizens; on the other hand, he has an even great responsibility as a scientist because he has helped in the making of these weapons which threaten him too as a citizen.

'What can the scientist do to avoid incurring this great responsibility? Above all he can explain to people the real dangers of an atomic war, but he can also join other scientists in speaking out for peace. I think that calling a congress of scientists to discuss these problems would make a great contribution to the cause of peace. The conference on the peaceful use of atomic energy announced by the United Nations could be a first step towards such a meeting desired by scientists.

'It is our duty to struggle for the peaceful use of atomic energy and of the other achievements of scientific work for we possess all the means for building a golden age, an era of prosperity for all men, an era of impetuous and continuous progress.'

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Professor Otto Hahn - German scientist and Nobel Prize winner

Extract from an article which appeared in the Frankfurter Allgemeine Zeitung on February 19, 1955

'This possibility (the destruction of civilisation by the hydrogen bomb) must never be allowed to happen, hence the need for a genuine international control over the making of atomic weapons or, better still, for peaceful co-existence between the peoples, even if their ideologies differ as widely as do those of East and West today...

'Most countries have neither the possibility nor the intention of making atomic and hydrogen bombs, as is undoubtedly the case with Germany. But they can and want to benefit from the peaceful applications made possible by splitting the atom.

'A joint appeal by all scientists aware of their responsibilities and of the dangers of using a weapon which threatens the whole world should certainly succeed in getting leading politicians on both sides of the iron curtain to start negotiations...'

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Professor Otto Haxel - Director of the Physics Institute of Heidelberg University

Extract from an exclusive interview in France-Soir on February 1, 1955

'So far, atmospheric radioactivity has been only very slightly increased, but if the number of experiments were to grow the human body could be affected. The effects would doubtless be felt by weakened people first of all.

'Our body is accustomed to withstanding normal atmospheric radioactivity, but it would be dangerous to impose extra doses on it. One may take flu' for the sake of comparison: if you increased the number of microbes you would cause unpredictable results.

'As to the influence on the climate, I too think that it will remain negligible unless the number of explosions is greatly increased.

'At what point could these experiments become dangerous? That is a question to which it is difficult to reply. In any case, for a scientist, atomic research should not have the aim of making arms but of working for mankind's happiness.'

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Professor Amilcare Fantoli - Inspector General of Italy's Meteorological Services and member of the World Meteorological Office

Interview given to France-Soir in January 1955

'...The most important consequences of H bomb explosions is the production of radioactive substances.

'We know, at least in a general way, the terrible effect of X rays and gamma rays on living organisms, on the tissues of animals and men. People fell victims to radiation sickness when man began to use it for beneficial purposes; there will certainly be thousands of victims if he one day decides to use atomic energy for intercontinental wars...'

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Dr. Bernardo A. Houssay - Argentine scientist, Nobel Prizewinner, professor honoris causa of all the universities of Latin America

Interview which appeared in the newspaper Propositos on March 17, 1955

'Question: Do you consider it necessary to ban nuclear weapons to avoid the destruction of mankind?

'Answer: While not denying the terrible effects that nuclear weapons would have on living beings and inanimate objects, I do not think that their use in a war would mean the total destruction of mankind. Nevertheless, I consider that they should be banned.

'Question: What would be the most adequate measure for reducing international tension and ensuring peace in the future?

'Answer: I think that the policy of the Great Powers should be firmly directed towards general disarmament. The banning of nuclear weapons alone would not be a sufficient guarantee of peace, which is why I urge the need for general disarmament. Any campaign or proposal for peace which does not emanate from official circles should also be aimed along these lines.'

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Professor Mario Schenberg - Brazilian scientist, professor of Physics at Sao Paulo University

Statement made on March 17, 1955

'Mankind has reached one of the most tense moments in its history when man, after more than 50 years of research, has succeeded in releasing atomic energy. But this has not happened at a time which one could describe as propitious for such a discovery, with the result that the threat of extermination is hanging over all mankind. Further, all is not being done that could be done for the peaceful use of atomic energy which, I am sure, will bring about tremendouse human progress. There is no doubt that some steps have been taken in a number of countries, but what has been done up till now is insignificant...

'The peoples can prevent the disaster of an atomic war from falling on mankind. but it is necessary for those who oppose such a prospect not to remain silent. If all go on record against the use and even the existence of atomic weapons, no government will dare to declare itself in favour of using them...

'The peoples can prevent an atomic war and bring about the destruction of atomic bombs and the peaceful use of atomic energy, so that life may become better for all...'

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Dr. Roberto Nunez Andrade - Member of the Mexican National Academy of Science, professor of Dermatology at the National University's Medical School

Dr. Andrade has made the following statement:

'As a doctor and scientist, I know the terrible results and some of the later and equally terrible consequences of atomic and hydrogen explosions on human beings and the material surroundings. Without any doubt these consequences still need to be studied and known. I therefore consider that writers, professors and scientists in particular, have the imperative duty of making known to the peoples their unanimous condemnation of the use of these monstrous weapons and of demanding their absolute abolition.'

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THE PROSPECTS OFFERED BY THE PEACEFUL USE OF ATOMIC ENERGY

The human genius has discovered a new and practically inexhaustible source of energy, the developments of which are limitless and which can and must be used to benefit man and not to exterminate him.

Certain achievements have already been made. There is an atomic power station in operation in the Soviet Union and other more powerful ones under construction in Great Britain, the United States, the Soviet Union, etc. Atomic energy is also being used in agriculture, as motive power and as a means of research and medical treatment. Bold plans are afoot and great prospects are opening up. A better world is possible.

These are the prospects described in the following statements by Professor Joliot-Curie, Professor Skobeltsin, member of the Preparatory Committee for the Conference which will be held in Geneva in August, Professor Acanfora of Italy and a number of other scientists:

Professor Frederic Joliot-Curie, Nobel Prize winner

Extract from the speech made at Drancy on April 3, 1955 already quoted

'Science is neither moral nor immoral; it is men who must be judged, for it is they who use the results of science for good or evil ends. It would be frivolous to say that scientists have no responsibility, since it is their work which is at the bottom of all kinds of applications. But it is precisely the awareness of their responsibility which should prevent them from being indifferent and from becoming the accomplices of those who do not hesitate to use the results of science for the most dangerous purposes.

'Drawing strength from their authority and competence, scientists must speak out and work side by side with all who want science to bring mankind happiness and not misfortune.

'Science, which has enabled us to harness great natural forces to useful ends, will enable us to overcome the scourges of the present day, like hunger and certain major diseases. But mankind is still young; the capital accumulated is small in spite of appearances and would doubtless not suffice to overcome the un-

forseen and terrible dangers with which nature can threaten us. Mankind dare not run the risk of being disarmed by braking, let alone stopping, the development of science under the false pretext that men are incapable of preventing the destructive use of its discoveries. It is in everyone's interest that the scientists should go on with their work of ceaselessly increasing our knowledge of nature.

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Professor Skobelitsin - Soviet Academician. Professor Skobelitsin is the Soviet representative on the UNO Preparatory Committee for the international conference on the peaceful use of atomic energy.

Statement made in New York on January 26, 1955

'The development of science is only possible if relations are established between scientists and a wide discussion is opened on scientific problems. The calling of an international conference which will be attended by scientists from many countries and the relations between scientists of various schools and lines of development will help in advancing science.

'The efforts that are being made internationally to develop the peaceful use of atomic energy will only assume their full value with the banning of atomic and thermonuclear weapons.

'The work on the peaceful use of atomic energy is being mainly directed to obtaining electricity from the atomic energy liberated by the nuclear reactions in atomic reactors.

'But atomic reactors can also be used for other purposes: for obtaining dangerous fissionable nuclear materials (plutonium 239 and uranium 233) which are used for atomic weapons. In constructing atomic reactors for the production either of electicity or of dangerous fissionable nuclear materials one uses the same general scientific and technical data.

'For it to be possible to really work on the peaceful use of atomic energy and te reveal fully the data in this field, it is clearly necessary to ban atomic weapons beforehand and establish a strict international control over this ban.

'If atomic weapons were banned and if the powerful means and the best forces of the atomic scientists and engineers at present being used in producing atomic energy for warlike ends were turned to the production of this energy for peaceful purposes, we should then undoubtedly obtain very great successes in developing the economics and prosperity of every country.

'A great amount of work is being done in the Soviet Union in the field of the peaceful use of atomic energy. As has already been announced an experimental atomic industrial power station with an effective power output of 5,000 kw. has been functioning since the summer of 1954. Work is under way on an atomic power station with a power output of 100,000 kw.

'Radioactive isotopes such as cobalt, iodine, phosphorus and radioactive sodium are being successfully used for diagnosing and treating illnesses.

'Radioactive phosphorus is used in treating angioma and other skin diseases, while radioactive iodine is used in thyroid gland treatments. In hundreds of hospitals and clinics radioactive cobalt is used in treating malignant tumours.

'It is to be noted that radioactive cobalt is being very widely used in 'defectoscopy', that is looking for faults, in the construction of machines, shipbuilding, metallurgy, building and other industries.

The use of radioactive cobalt instead of radium, which is very costly, and cumbersome X-ray apparatus, has made it possible to introduce a particularly efficient method of control into industry. The use of radioactive isotopes has made it possible to study phenomena which elude investigation by other methods in biology, chemistry, agrotechnics and other branches of science.

Some of the results obtained in this work will be illustrated by the Soviet scientists who will attend the forthcoming international conference.

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Professor Alexander Topchayev - Soviet Academician, Secretary of the Presiding Committee of the Soviet Academy of Sciences

Statement made in March 1955

'Atomic tracers have made it possible to know the way in which saccharose, nicotine and other important vegetable substances are formed.

'Last year more than thirty research institutes in the Soviet Union did experiments with radioactive superphosphate in order to establish the best time for using fertiliser. They established reliable data on the proportion and speed of assimilation by plants of phosphorus buried at different depths, with a variable distribution of fertiliser in the soil.

'The experiments on the feeding of plants through other parts than the roots make it possible to give vegetables a little extra phosphorus at certain stages in their growth, thus increasing the yield.

'These are only a few examples of the use of atomic energy for peaceful purposes. The research for new methods of using atomic energy is an important task for the scientists of our country and particularly for the Academy of Science of the U.S.S.R.

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Professor Louis Leprince-Ringuet - French scientist, Member of the Academy of Science

Article published in Le Monde of March 19, 1955

'The recent report of the American Atomic Energy Commission has enlightened us on the destruction which would occur: thousands of square miles would be affected by the fall-out of radioactive dust created by the explosion of a powerful bomb; the dust could in certain cases eliminate all life in an area 70 miles square. France would have little chance of escaping almost total destruction. So we must do our utmost to try and improve the relations between the two great blocs, to promote contacts and to help conferences to succeed. If our action is tenacious, obstinate and intelligent, it will not necessarily be ineffective...

'Is it necessary to launch the manufacture of bombs in order to help ease tension and give less chance to war, now that we are merely beginning to leave the childhood of the first atomic age, now that we can begin to envisage industrial application in the not too distant future?...

'While it is true we are still only in the experimental stage and our third pile G-1 is not yet functioning and will only supply the first tons of plutonium in 2½ years; none the less we are progressing rapidly. The Commissariat for Atomic Energy is undergoing remarkable development and envisages, thanks to G-2, the production of 20,000 kw. of usable power by 1957. That is to say that our first atomic power station, producing power that can be used industrially, will be functioning in less than two years, while Great Britain, in spite of immense efforts,

will only have its first atomic power station of 40,000 kw. in a year's time. We shall have almost made up our very great initial time lag in this particular field since, in terms of comparable power, we shall achieve our goal only a year and a half behind Great Britain...

'Let us take advantage of the coming years to improve our general situation to make up the delay by training engineers and scientists - and this cannot be done in a few months - by increasing our mining, techincal and industrial capacity, by giving serious study to the basic problems and by carrying out the experimental and industrial work which constitutes indispensable stages of a programme which is both ambitious and reasonable.

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Professor Jean Malterre - Laboratory director of the National School of Agriculture in Grignon, France

Statement to the 16th Congress of the International Institute of Sociology

'The first thing necessary to make the desert fertile is water. That is practically the only problem, for all others are subordinate to it. This precious liquid will have to be drawn from the depths of the earth or transported from afar. That is to say, a great deal of motive power will be necessary. It is astonishing that the question has not been solved through the building of solar factories and big wind machines. We shall probably do so one day, particularly where large distances are involved; but the atomic power station would now appear to be the perfect solution. Fissile materials, Uranium 235 or plutonium, make it possible to transport great energy for very little weight, so transport is no longer a problem and the distance of deserts will no longer matter...

'The desert having recovered its cloak of green, it would still remain to find systems of cultivation in which the sun would be used to the maximum and the layer of arable soil would be held down and protected. That is a matter for technicians and is relatively easy.'

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Emilia University Professors (Italy)

In the No. 2, 1955 issue of the review Emilia which is published in Bologna a group of scientists of the universities of the province of Emilia, including such well-known men as Giuseppe Acanfora, Oliviero Mario Olivo, Aldo Costari, Giovanni Favilli, Mario Canella, Ermenegildo Gastaldi and Armando Busino, published an article addressed to all scientists. The following are a few extracts:

'... They (scientists Ed.) must make known through their speeches and writings the new reality with which mankind is faced. They alone can give confidence and eliminate the terror inspired by atomic energy. In the last resort they are responsible for the beginning of a new atomic era in which this energy will be used for peaceful purposes, and for defending this right which science has given to men.

'It will be useful to teach men how and why the sun gives off atomic energy which is a source of life for our planet. They will have to be taught that the study of the varying radioactivity of the different geological materials has already furnished precious data for determining the age of the earth. They should be told that the use of artificially radioactive chemical compounds is the most efficient method that the biological sciences and particularly medicine have ever had at their disposal for solving a host of problems connected with the development of everything living, the biochemical processes in cells and in normal and pathological tissues which are the very foundation of the manifestations of living matter. They should be told how it is now possible to transform deserts into fertile and habitable zones, since atomic energy removes the principal obstacle, which was the high cost of the

electrical or heat energy necessary to effect this transformation, and even the impossibility of transporting it. Also that it is possible to envisage interplanetary navigation perhaps in the not so distant future, thanks to atomic energy.

'If men can use atomic energy to their advantage, if they can succeed in banning its use for death and destruction, then they will be able to enjoy in peace the greatest gift that science has ever made to man instead of cursing it. Then science will be able to say once again that it has served progress disinterestedly.'

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Professor D.D. Kosambi - Indian scientist, Professor of Physics in the Tata Research Institute

Statement made in April 1955

'If technical knowledge and a small amount of fissionable material is made available, India can start building a chain of atomic power stations where necessary... These power-stations would make power available immediately in the necessary quantities, whereas a hydro-electric scheme means surplus power at the beginning and a deficit later on, as the experience of Bombay has shown. Best of all, these small power-stations, whose units could be re-distributed or increased in a most flexible manner, would enable small industries to be started at once in the heavily populated rural centres.

'Furthermore, pumps can be run on atomic power in the deserts of Rajasthan, and a vast new territory opened up for the expansion of agriculture, at far less expense than any hitherto projected scheme of irrigation.

'Successful Asian development would also pave the way for the industrialisation of Africa on a fair basis for Africans.

'Dropping atomic, hydrogen, or cobalt bombs will not stop progress, no matter how many are killed in the attempt.'

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WHAT SCIENTIFIC ORGANISATIONS ARE SAYING

Last February a report published by the Atomic Energy Commission of the United States on the effects of nuclear explosions roused great interest. An extract is given below.

Other associations or their representatives in both East and West are taking up clear positions which give authoritative confirmation of the correctness of the struggle against the growing atomic threat being conducted by all who want peace.

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Report of the American Atomic Energy Commission published in The New York Times of February 16, 1955

'...On the basis of our data from this and other tests, it is estimated that, following the test explosion on March 1, 1954, there was sufficient radioactivity in a downwind belt about 140 miles in length and of varying width up to twenty miles to have seriously threatened the lives of nearly all persons in the area who did not take protective measures. During the actual tests, of course, there were no people

in this zone. Inside Bikini atoll at a point ten miles downwind from the explosion it is estimated that the radiation dosage was about 5,000 roentgens for the first thirty-six-hour period after the fall-out. The highest radiation measurement outside of Bikini atoll indicated a dosage of 2,300 roentgens for the same period. This was in the northwestern part of the Rongelap atoll, about 100 miles from the point of detonation. Additional measurements in Rongelap atoll indicated dosages for the first thirty-six-hour period, of 2,000 roentgens at 110 miles, 1,000 roentgens at 125 miles, and farther south, only 150 roentgens at 115 miles from Bikini.

'Some distance farther from the point of detonation, at about 160 miles downwind and along the axis of the ellipse, the amount of radioactivity would have seriously threatened the lives of about one-half of the persons in the area who failed to take protective measures. It is estimated that the radiation dosage at that point was about 500 roentgens for the first thirty-six-hour period.

'Near the outer edge of the cigar-shaped area, or approximately 190 miles downwind, it is estimated that the level of radioactivity would have been sufficient to have seriously threatened the lives of 5 to 10 per cent of any persons who might have remained exposed out of doors for the first thirty-six-hours. In this area the radiation dosage is estimated at about 300 roentgens for the first thirty-six-hour period.

'Thus, about 7,000 square miles of territory downwind from the point of burst was so contaminated that survival might have depended upon prompt evacuation of the area or upon taking shelter and other protective measures...'

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International Union of Biological Studies

The General Assembly of the International Union of Biological Studies was held in Rome at the end of April and the beginning of May 1955. It passed a resolution recommending the International Council of Scientific Unions to form immediately an International Committee of Biologists charged with evaluating the ravages caused to the heredity of men, animals and plants by the radiation spread by atomic and thermonuclear experiments.

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Statement by the Presidium of the Academy of Science of the U.S.S.R. published in Izvestia of February 20, 1955

'The peoples received with anxiety and great anger the decision of the Council of the aggressive North Atlantic bloc giving the American command in fact the right to determine arbitrarily the place and time to use atomic and thermonuclear weapons.

'Preparing to use weapons of massdestruction, the imperialists are trying to hide their criminal activity by talking about the 'defensive' nature of atomic weapons. But mankind has never recognised and will never recognise as being 'defensive' the efforts of a handful of monopolists who want to dominate the world through atomic war. Those who want war are trying to deceive the peoples with talk about the 'tactical' use of the atomic bomb, for the very first attempt to use this 'tactical' weapon would lead to the all-out use of atomic and hydrogen bombs. By false statements about 'defence' and the 'tactical' use of atomic bombing, the forces of aggression are trying to make the peoples believe that the use of atomic weapons is inevitable so as to hurl them into an atomic war which threatens the whole human race with untold disasters...

'The anger of the masses of the people will thwart the new and criminal plans of the leaders of the North Atlantic bloc. The peoples of the world are opposing the unleashing of atomic war with ever-growing strength.

'Soviet scientists, who are devoting their talents and knowledge to the noble aims of peaceful creation, to making even greater improvements in the well-being of the Soviet people and to developing their culture, cannot allow such a great conquest of human genius as the taming of atomic energy to be used by the imperialists to massacre and destroy people on a mass scale.

'Atomic energy must contribute to the limitless progress and peaceful advance of mankind. The Soviet Union has set the example of the use of this great discovery in the field of peaceful economic construction: for the first time in the world, an atomic power station has been constructed and is working in the Soviet Union. Soviet scientists are conducting research with a view to using atomic energy in technology, biology, medicine and agriculture, and the Soviet people, who are using atomic energy for peaceful purposes in practice, are ready to share their experiences with other peoples. The Soviet Government has declared that it is fully disposed to help China, Poland, Czechoslovakia, Rumania, the German Democratic Republic and other countries with a view to the extensive use of atomic energy for peaceful purposes.

'The Soviet people firmly demand the banning of atomic weapons and all other weapons of mass destruction because they are guided exclusively by the interests of the peoples and take their stand on the principle that the peaceful co-existence of the socialist and capitalist systems is possible.'

Academicians A.N. Nesmeyanov, President of the Academy of Science of the U.S.S.R.
I.P. Bardin, Vice-President of the Academy of Science of the U.S.S.R.
K.V. Ostrobitianov, Vice-President of the Academy of Science of the U.S.S.R.
A.V. Topchiyev, First Scientific Secretary of the Presidium of the Academy of Science of the U.S.S.R.
G.F. Alexandrov - V.V. Vinogradov - M.M. Dubinin - M.V. Keldysh - I.V. Kurchatov - M.A. Lavrentiev - T.D. Lysenko - V.S. Nemchinov - A.I. Oparin - I.G. Petrovski - N.N. Tikhonirov - S.A. Kristianovich - D.I. Shchorbakov, Members of the Presidium of the Academy of Science of the U.S.S.R.

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Statement by the Federation of American Scientists

Extract from an analysis given in The New York Times of March 7, 1955

'The federation comprises about 2,000 scientists and engineers, more than half of whom have worked in atomic fields.

'A United Nations study of how much the atomic and hydrogen bomb tests may be poisoning the world's atmosphere was urged by the Federation of American Scientists on March 6, 1955.

'It should be clear that future accelerated H-bomb test programs by several atomic powers will ultimately reach a level which can be shown to be a serious threat to the genetic safety of all people of the world.'

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The Lancet - British Medical Journal

The following is a passage from The Lancet the authoritative British medical journal:

'Extensive studies on the spermatozoa of the 22 men (the crew of the Fukuryu Maru) showed in all cases a gradual reduction in the spermatozoa-count, a diminution in motility, and an increase in the proportion of deformed spermatozoa.

'By last December (nine months after the Bikini test) the spermatozoa-count had in every case fallen to zero.

'But, the real hazard is, of course, far more serious. Radioactivity of all kinds has been found to cause an increase in the mutation-rate in all animals and plants in which it has been tested; and since most mutations of genes are harmful, the result of irradation is that after several generations the incidence of abnormalities is raised.'

Message to United Nations from Argentine Doctors

This text, drawn up by the doctors of Rosario, was then adopted and signed by eminent doctors in Buenos Aires and other towns:

'Can we who, when we adopted the medical profession, made an oath to preserve the lives of men and to lighten their sufferings, calmly go on with our work and make plans for the future when weapons are being piled up and tested which can kill millions of men and women in a few hours?

'We are living at a grave moment in history.

'As doctors, educated in a generous humanism, we are obliged to recognise our moral responsibility. It is not opinions or beliefs that are at stake, but the fate of mankind.

'It is our duty to warn public opinion of the dangers involved in these modern weapons and to launch an appeal to all who bear responsibility for the future of the world to obtain an absolute ban on them.

'As spokesmen of the anguish felt by all peoples, and aware of the grave danger that threatens mankind, the signatories have decided to make solemn appeal to the United Nations, demanding the absolute banning of all atomic, thermonuclear and radioactive weapons and all other weapons of mass destruction of whatever kind. We invite all individuals and organisations to do likewise.

'We feel ourselves animated by the same moral forces that moved Hippocrates, Pasteur and Claude Bernard and like them we are certain that science will continue to work for human happiness so that we can work without fear and feel again the joy of giving the inestimable benefits of science to the world.'

Statement by Polish scientists and other intellectuals

Published in Warsaw on January 8, 1955

'... We Polish intellectuals are firmly convinced that this appeal we are launching to the scientists and public figures of Western Europe and America in order to unite the efforts of men of good will to avert the threat hanging over the world cannot remain unanswered.

'We ask you scientists and men of culture: Will you remain silent and indifferent while your countries are turned into atomic bases? Is it possible that you are not aware of the dangers that threaten your peoples above all others, since they live in densely populated lands, if American aggressive circles and their accomplices in Europe unleash an atomic war? Can you allow the fruits of the labours of great and remarkable men and women who loved peace above all things, men and women like Pierre and Marie Curie and many other scientists, to be used as a terrible weapon of war?

'... At the present time mankind is at a crossroads.

'On the one hand, there is the road of peaceful co-operation between States and peoples irrespective of their social system, and the peaceful use of atomic energy with the opening of the first atomic power station in the Soviet Union. This is the road leading to a limitless increase in material well-being, guaranteeing a hitherto unknown development of civilisation and the prosperity of the peoples.

'On the other hand, mankind is faced with the threat of an atomic war by madmen who think that the atomic and hydrogen bombs can turn back history.

'We appeal to you. Stay the hand of those who want war, of those who are preparing to unleash atomic war to destroy our cities and peoples! Demand a ban on the use of atomic and hydrogen bombs! Speak out for Life, not death!

Jan Dembowski, Professor of Biology, President of the Polish Academy of Science

Leopold Infeld, Professor of Physics at Warsaw University, member of the Presidium of the Polish Academy of Science

Kazimierz Kuratowski, Director of the State Mathematics Institute, member of the Presidium of the Polish Academy of Science, professor at Warsaw University

Leon Kruczkowski, President of the Union of Polish Writers

Jaroslav Iwaskiewicz, writer

Zygmunt Skibniewski, architect, President of the Committee for Town Planning and Architecture

Eugeniusz Eibisz, painter, professor at the Warsaw Art Academy

Tadeusz Lehr-Splawinski, professor at the Jagiello University in Krakow

Romuald Cebertowicz, professor at the Gdansk Politechnical Institute

Roman Kozlowski, professor of Palaeontology at Warsaw University.

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Documentary Material

SECRETARIAT OF THE WORLD COUNCIL OF PEACE

Vienna, September, 1955

THE DISARMAMENT PROBLEM

Summary

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SPEECH BY PROFESSOR FREDERIC JOLIOT-CURIE,
PRESIDENT OF THE WORLD COUNCIL OF PEACE,
AT THE WORLD ASSEMBLY OF THE FORCES OF PEACE
AT HELSINKI

"... The problem of the elimination of weapons of mass destruction is effectively linked with that of disarmament, as is shown by the many resolutions already adopted by the World Council of Peace and by other national and international groupings and organisations ...

"I believe that disarmament is the concrete act which public opinion desires above all else.

"This disarmament must be obtained in the world as it is, that is to say, in a world where there is neither mutual trust nor understanding between the nations.

"Must we admit that the absence of trust is an insurmountable obstacle to any kind of disarmament? That would mean that it would not only be necessary to keep all armaments but to increase them, which would further increase mistrust. It would mean the pursuit of the mad armaments race with its consequences of poverty, despair and war.

"This is not the place to lay down the successive stages of disarmament in detail. In this field the United Nations Organisation has decided to link the two problems of weapons of mass destruction and disarmament. Substantial progress has been made. The Franco-British plan of June 1954, unanimously adopted as a basis for discussion, and the recent Soviet plan are valuable contributions. My country's delegate to the Disarmament Commission, M. Jules Moch, made a public statement on this plan, of which too little is generally known, which demonstrated the very close attention he paid to these concrete proposals.

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"So the chances that these major problems of the elimination of weapons of mass extermination and disarmament will be solved are greater today, perhaps, than at any other time..."

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STATEMENT BY PROFESSOR FREDERIC JOLIOT-CURIE
ON THE GENEVA CONFERENCE
OF THE HEADS OF GOVERNMENT
OF THE FOUR GREAT POWERS

"The Peace Movement has always opposed the policy of military blocs, and has always stressed the need for co-operation between states Action to achieve collective security and disarmament should be considered by the National Movements as of prime importance, because therein lies the solution of most of the problems enumerated. Collective security can be achieved through peace pacts open to all nations irrespective of their social system; it is the antithesis of the policy of forming blocs with its dangerous sequel of unilateral military pacts; it puts an end to the cold war.

"Disarmament is a concrete guarantee of security and the well-being of mankind can be enormously advanced with the aid of the resources thus freed."

(Paris, 8th August, 1955)

INTRODUCTION

One of the factors which has contributed most, during the past eight years, to the poisoning of the international atmosphere is the arms race. The policy of getting possession of sources of strategic raw materials, the setting up of hundreds of military bases on foreign soil, the manufacture of and experiments with nuclear weapons of unprecedented destructive power, have all given a particularly tense character to the 'cold war' and the 'war of nerves'.

The policy of force has not produced the results its supporters had hoped; and it suffered a fresh set-back after the Geneva Conference of the Four Heads of Government, where the disarmament problem was broadly discussed.

The discussion between the Big Four took place on the various proposals already submitted to the Disarmament Sub-Committee, which met in London.

The debate was fruitful because it produced the following results: a meeting of the Sub-Committee was convened for 29th August in New York; the Sub-Committee was instructed to discuss the proposals referred to it by the Big Four; and the Foreign Ministers of the Great Powers have been instructed to pay close attention to its proceedings.

The points of view have in fact come closer together, the U.S.S.R. having accepted the figures proposed by the Western Powers for the level of armed forces of the Five Great Powers.

Consequently, there are grounds for hope that the Disarmament Sub-Committee will produce proposals for precise agreement on this question, thus creating the possibility of agreement between governments on the banning of atomic weapons and general, controlled disarmament.

However, the fact must not be concealed that numerous, powerful forces are still opposing disarmament and a lessening of tension.

The decisions taken by the chiefs of staff and government ministers in the NATO Council regarding the use of atomic weapons as conventional weapons still remain in force. The policy of military blocs is being intensified by the rearmament of Western Germany, which has already begun. Through organisations of all kinds it is sought to strengthen Western European Union. The enemies of an easing of tension are still at work.

The peoples have won an important victory against this policy of blocs and the use of atomic weapons: the meeting of the Big Four and its positive results.

This victory was to a large extent the result of the action of the World Peace Movement, which has persistently worked for great power negotiations and which roused public opinion with its campaign against atomic war; it owed much to the World Assembly for Peace at Helsinki.

We are therefore publishing here all the documents dealing with the campaign and those produced by the Assembly, together with the most indicative examples of public opinion.

We hope that the logical presentation of these documents will help friends of peace to follow the course of events more clearly and easily and enable them to improve the struggle for the prohibition of nuclear weapons and for disarmament.

STATEMENTS, PROPOSALS and OFFICIAL DECISIONS
(a) BEFORE THE GENEVA CONFERENCE
OF THE HEADS OF GOVERNMENT OF THE FOUR GREAT POWERS

Anglo-French Disarmament Plan of 11th June, 1954

The French and United Kingdom delegations submit the following proposals as a possible basis for compromise:

1. The States members of the Sub-Committee regard themselves as prohibited in accordance with the terms of the Charter of the United Nations from the use of nuclear weapons except in defence against aggression. They recommend that the Disarmament Treaty should include an immediate and explicit acceptance of this prohibition by all signatory States, pending the total prohibition and elimination of nuclear weapons as proposed in the subsequent paragraphs of this memorandum. They further recommend that the obligations assumed by Members of the United Nations to refrain in their international relations from the threat or use of force against the territorial integrity or political independence of any State should be accepted by all Signatory States not members of the United Nations.

2. The draft disarmament treaty prepared by the Disarmament Commission and submitted by it to the Security Council, to the General Assembly and to the World Disarmament Conference should include provisions covering the following:

(a) The total prohibition of the use and manufacture of nuclear weapons of mass destruction of every type, together with the conversion of existing stocks of nuclear weapons for peaceful purposes.

(b) Major reductions in all armed forces and conventional armaments.

(c) The establishment of a control organ with rights and powers and functions adequate to guarantee the effective observance of the agreed prohibitions and reductions.

3. After the approval of the draft treaty by the World Disarmament Conference this instrument would be open to signature and adherence by all States. The Treaty would enter into force immediately it had been ratified by those of the Signatories who would be specified in the treaty.

4. The treaty should provide that the disarmament programme should be carried out as described below.

5. After the constitution and positioning of the Control Organ, which shall be carried out within a specific time, and as soon as the Control Organ reports that it is able effectively to enforce them, the following measures shall enter into effect:

(a) Overall military manpower shall be limited to 31st December 1953 levels.

(b) Overall military expenditure, both atomic and non-atomic, shall be limited to amounts spent in the year ending 31st December, 1953.

6. As soon as the Control Organ reports that it is able effectively to enforce them, the following measures shall enter into effect:

(a) One half of the agreed reductions of conventional armaments and armed forces shall take effect.

(b) On completion of (a) the manufacture of all kinds of nuclear weapons and all other prohibited weapons shall cease.

7. As soon as the Control Organ reports that it is able effectively to enforce them, the following measures shall enter into effect:

(a) The second half of the agreed reductions of conventional armaments and armed forces shall take effect.

(b) On completion of (a):

(i) The total prohibition and elimination of nuclear weapons and the conversion of existing stocks of nuclear materials for peaceful purposes shall be carried out;

(ii) The total prohibition and elimination of all other prohibited weapons shall be carried out.

8. It is to be hoped that when all the measures enumerated above have been carried out the armaments and armed forces of the powers will be further reduced to the levels strictly necessary for the maintenance of internal security and the fulfilment of the obligations of signatory States under the terms of the United Nations Charter.

9. The Control Organ shall remain in being to ensure that the reductions, prohibitions and eliminations are faithfully and permanently observed.

(United Nations Review,
Vol. I, No.3, September, 1954).

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Speech by Mr. A.Y. Vyshinsky to the Political Commission of the U.N. General Assembly on the Soviet proposals of 30th September, 1954.

(The following passage shows how far the Soviet proposals of 30th September coincided with the Franco-British proposals of 11th June, 1954).

The Soviet draft resolution proposes a two-phase reduction in armaments and armed forces and the expenses devoted to military requirements. In the first place the states would reduce their armed forces and budget expenditure by 50% of the agreed norms. Secondly, the states would reduce their armaments, armed forces and budget expenditure for military requirements by 50% of the remaining proportion of the agreed norms. This second phase would be simultaneous with the complete banning of atomic and hydrogen weapons and other weapons of mass destruction.

In the Franco-British memorandum of 11th June, 1954 there is the question, under Point 6a, of implementing half of the agreed reductions in armed forces and conventional weapons. You thus see that one of the important provisions coincides with the provision which I have mentioned, namely a 50% reduction, in two phases on the basis of agreed norms. There are certain differences, in particular concerning the reduction of military credits. In our proposal we say that they should be reduced by 50% in two phases, while in the Franco-British memorandum there is no question of reducing military credits. Nonetheless, as I have said, that does not exclude the importance of the similarity of the proposals for a 50% reduction.

(Translated from Revue des Nations Unies No.10, October, 1954).

Resolution on Disarmament adopted by the U.N. General Assembly on 4th November, 1954.

(In the Plenary Session of 4th November, 1954 the U.N. General Assembly unanimously adopted the following resolution, proposed by the United States, Canada, the United Kingdom and the U.S.S.R.)

CONCLUSION OF AN INTERNATIONAL CONVENTION (TREATY) ON THE REDUCTION OF ARMAMENTS AND THE PROHIBITION OF ATOMIC, HYDROGEN AND OTHER WEAPONS OF MASS DESTRUCTION

The General Assembly

Reaffirming the responsibility of the United Nations for seeking a solution of the disarmament problem,

Conscious that the continuing development of armaments increases the urgency of the need for such a solution,

Having considered the fourth report of the Disarmament Commission of 29th July, 1954 (DC/53 and DC/55) and the documents annexed thereto, and the draft resolution of the Union of Soviet Socialist Republics (A/c-1/750) concerning the conclusion of an international convention (treaty) on the reduction of armaments and the prohibition of atomic, hydrogen and other weapons of mass destruction,

1. Concludes that a further effort should be made to reach

agreement on comprehensive and coordinated proposals to be embodied in a draft international disarmament convention providing for:

(a) The regulation, limitation and major reduction of all armed forces and all conventional armaments;

(b) The total prohibition of the use and manufacture of nuclear weapons and weapons of mass destruction of every type, together with the conversion of existing stocks of nuclear weapons for peaceful purposes;

(c) The establishment of effective international control, through a control organ with rights, powers and functions adequate to guarantee the effective observance of the agreed reductions of all armaments and armed forces and the prohibition of nuclear weapons of mass destruction, and to ensure the use of atomic energy for peaceful purposes only; the whole programme to be such that no State would have cause to fear that its security was endangered;

2. Requests the Disarmament Commission to seek an acceptable solution of the disarmament problem, taking into account the various proposals referred to in the preamble of the present resolution and any other proposals within the Commission's terms of reference;

3. Suggests that the Disarmament Commission reconvene the Sub-Committee established in accordance with paragraphs 6 and 7 of General Assembly Resolution 715 (VIII) of 28th November, 1953;

4. Requests the Disarmament Commission to report to the Security Council and to the General Assembly as soon as sufficient progress is made.

(United Nations Review,
No.11, November, 1954)

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Interview given by Mr. A.A. Gromyko to the Tass Agency correspondent in London, 24th March, 1955.

(Replying to a question from the Tass Agency on the substance of the proposals made by the Soviet Government on 18th March, 1955 to the Disarmament Sub-Committee meeting in London, regarding the reduction of armaments and the prohibition of atomic weapons, Mr. Gromyko gave a detailed reply from which we reproduce the passages given below).

The Soviet government...proposed that the convention be based on the French and British proposals of 11th June, 1954, which, in their major provisions, are not at variance with the Soviet Union's position on reduction of armaments and prohibition of atomic weapons.

Accordingly, the Soviet government suggests that the major provisions of the convention should envisage:

Firstly, reduction by the states within six months (or one year) of their armaments, armed forces and budget allocations for military purposes to the extent of 50 per cent of agreed standards of reduction. The reduction of armaments and armed forces shall be from

the level of 1st January, 1955, and the reduction of allocations for military purposes - from the level of the allocations for 1955.

As a first step towards reduction of armaments and armed forces, the states shall undertake not to increase their armaments and armed forces above the level of 1st January, 1955, nor to increase their allocations for military purposes above the allocations for 1955.

The proposals also envisage a substantial reduction of armaments and armed forces by the five Great Powers - the United States, Great Britain, France, China and the U.S.S.R.

With a view to the adoption of further measures for a general reduction of armaments, it is proposed to convene some time in 1955 a world conference on general reduction of armaments and prohibition of atomic weapons, open to both members and non-members of the United Nations.

It is further provided that, when fixing the standards of armaments reduction, consideration shall be given to simple and agreed criteria, such as demographic, geographical, economic and political factors, with a view to promoting universal peace and security and lessening the threat of aggression...

Secondly, upon the completion of the aforementioned measures, the Soviet proposals provide for a further reduction of armaments and, simultaneously, prohibition of atomic, hydrogen and other weapons of mass destruction.

According to the Soviet proposals, the states shall, also within a period of **six** months (or one year) reduce their armaments, armed forces and allocations for military purposes to the extent of the remaining 50 per cent of the agreed standards of reduction - armaments and armed forces from the level existing as of 1st January, 1955, and allocations from the level of the allocations for 1955. Within this period, atomic, hydrogen and other weapons of mass destruction are to be absolutely prohibited and their production discontinued; they are to be completely eliminated from the armaments of the states, and atomic materials are to be utilized solely for peaceful purposes.

In view of the exceptional importance of absolute prohibition of atomic and hydrogen weapons, the Soviet proposals provide that the aforementioned measures concerning these weapons, as well as other weapons of mass destruction, shall be completed not later than the completion of the second half of the agreed reduction of armaments and armed forces. Furthermore, production of atomic and hydrogen weapons is to be discontinued immediately the remaining 50 per cent of the agreed reductions of armaments, armed forces and military allocations begin...

Thirdly, the Soviet Union holds that it is important for the states to make an effort towards further reduction of armaments after completion of the measures provided for in the convention. It is therefore proposed that explicit mention be made in the convention of the desirability of a further reduction by the powers of their armaments and armed forces, to levels absolutely essential for their internal security and for the discharge of their commitments under the Charter of the United Nations...