

TRANSCRIPT FROM A TAPE CONTAINING A RECORD OF A STATEMENT MADE TO MR THOMAS MEYER (PROSPECTIVE AUTHOR OF A BIOGRAPHY OF D N DUNLOP) BY MR C H GRAY, SECRETARY, INTERNATIONAL EXECUTIVE COUNCIL AND BRITISH NATIONAL COMMITTEE, WORLD POWER CONFERENCE, OCTOBER 1928-FEBRUARY 1966,

Daniel Nicol Dunlop was born at Kilmarnock in Scotland in 1868. He was the son of a Quaker architect. At the age of about five he moved, after the death of his mother, to the house of his grandfather who was living on the Isle of Arran. He underwent his engineering apprenticeship with the Howe Machine Co. at Ardrossan. He then went to Ireland temporarily for work not connected with the electrical industry. At the age of 26, Dunlop went to the United States and worked for the American Westinghouse Co. at their New York office. He worked as what would nowadays be called a public relations officer. He returned to the United Kingdom in 1899 as an employee of American Westinghouse, where he was styled assistant publicity manager.

There was in existence a weak national electrical manufacturers' association. In 1911 the British Electrical and Allied Manufacturers' Association was formed on a much broader basis; this organisation will be referred to by me in the future as BEAMA. Dunlop was first appointed as Secretary; his office was upgraded to that of Director in the year 1917. To the best of my belief he was the first Secretary of a trade association to receive that title. At the end of his life for a short period he had a co-director, a Mr Watlington.

The idea of the World Power Conference was Dunlop's and Dunlop's alone. He it was, who was the Director and of course principal organiser of the First World Power Conference held at Wembley, just outside London, in 1924. This was at the time of the British Empire Exhibition. Dunlop had to encounter and to overcome numerous difficulties, particularly because of the comparatively low regard in which trade associations were held at that time. He first of all had to enlist the support, including the financial backing of BEAMA, the Council of which was composed of hard-headed manufacturers of electrical plant and appliances. He then secured the almost miraculous support of the three chartered engineering institutions. I give their names in their order of foundation: the Institution of Civil Engineers, the Institution of Mechanical Engineers, and the Institution of Electrical Engineers. Only members of these institutions were entitled to describe themselves as chartered engineers. Above all, Dunlop had to secure the support of the Royal Society, the society of scientists founded by Charles II in 1660. He also had to secure the benevolent interest of the British Government of that day. In view of uncertainties as to its future is a tribute to Dunlop's confident optimism that the organisation that he founded was described as the "First" World Power Conference as there was no assurance that there would be any successor. Perhaps the most difficult task of all was to arrange for the setting up of National Committees to promote participation by

countries throughout the world in the First WPC. Frankly, I do not know how he achieved this part of his work which was, of course, before my time. I think he was possibly helped in part by his philosophy: he was an anthroposophist, that is to say a follower of the late Rudolf Steiner. However that may be, he abundantly succeeded. Of course these committees were ad hoc committees.

The First World Power Conference was opened by the Prince of Wales. It is probably a mistake to think that, as has been claimed, the presence of the Prince of Wales at the opening can have been procured by Dunlop at short notice. In the first place Dunlop would have had too little influence, in the second place the engagements of senior members of the Royal Family are always planned many months in advance. The probability is that the then Earl of Derby who was either Honorary President or Patron of BEAMA - I forget which - was responsible for securing the attendance of the Prince of Wales and his delivering of an address; the latter was almost certainly written either in its entirety or very largely indeed by Dunlop. (In this connection I may mention that when the Second WPC was held at Berlin in 1930 and the Earl of Derby, who had become the first President of the WPC, handed over his presidency to his German successor, Seine Exzellenz Oskar von Miller, that it was I and not Lord Derby who wrote his address which was delivered in the Reichstag.)

Returning to the First WPC: it was an overwhelming success and Dunlop convened the first meeting of what was then described as the International Executive Committee, consisting of one or more representatives of each of the countries which attended the First WPC. This Committee decided to make the WPC a permanent organisation and decided also that the Central Office should be in London until otherwise agreed. Dunlop was, by acclamation, I assume, elected first Chairman of the International Executive Committee and it was decided to set up a Committee to prepare what was to be the first Constitution. I might add I think it was the Canadian National Committee which thought, at the time of the First WPC, it might be unnecessary to have a Central Office: that the work of a Central Office might be entrusted to the National Committee of whichever was to be the host country at the next ensuing conference.

For reasons of practical convenience and because the WPC was and remains entirely non-political, the posts of Secretary of the International Executive Council (IEC) and Secretary of the British National Committee (BNC) have always been held by the same person. The first Secretary was Mr M W Burt. I think he was a member of the staff of BEAMA. Just to jump a little, he was responsible for organising the Fuel Conference of the WPC held in London in 1928. During the preparation for this conference Mr Burt was lured away by the gas interests and became in succession Secretary of the British Road Tar Association and Director of the Society of British Gas Industries. I will return to that later on.

At this point I will try to deal with the personal characteristics of Dunlop as known to me. He had enormous charm and courtesy, at the same time great powers of administration and of persuasion. I always thought that he could have been a great actor or preacher. It was remarkable that he could speak in an ordinary voice without raising it in any histrionic manner and without the use of microphones - not, I believe, known at that time - and yet be heard in the furthest corner of a very large hall. He invariably treated me with the greatest courtesy and kindness. But I cannot claim that I knew him intimately, personally. Our relationship was purely official; he never entertained me. So my knowledge is restricted to his work as Chairman of the IEC and of the BNC of the WPC: he presided with tact, efficiency and charm over successive meetings of both bodies.

I will now proceed with the history of the WPC during the period of Dunlop's chairmanship. There was a Sectional Meeting - I should interpose here that the original Constitution of the WPC provided for two types of conference: Plenary Conferences to be held at intervals of six years and so called Sectional Meetings - "Teilkonferenzen" - to be held in between in accordance with invitations extended to the IEC and accepted by that Council. Also provision was made for Sectional Meetings to be held on a geographical basis, i.e. attendance to be limited to persons living within a restricted geographical area. But in Dunlop's time no regional Sectional Meetings were held, although they have been held many years afterwards, after I had retired.

I have spoken hitherto of the foundation by Dunlop of the WPC and of the first meeting of the International Executive Committee soon to be renamed International Executive Council. But he was also Chairman of the BNC, and in that connection it is necessary to call attention to the fact that in Britain at that time and many years after there was no body corresponding to the Verein Deutscher Ingenieure though there were and still are the Institutions of Civil, Mechanical and Electrical Engineers as well as many specialised bodies, e.g. the Institution of Gas Engineers, Institute of Petroleum, Institution of Structural Engineers, Institute of Fuel and so on. It was only much later that bodies representing all engineering came into existence - the whole engineering profession - notably the Fellowship of Engineering, the creation of which was largely due to a future Chairman of the IEC, Lord Hinton of Bankside. There was also to come into existence a Council of Engineering Institutions. The first Honorary Secretary of the BNC was Mr Charles Rogers who was Deputy Director of BEAMA. He gave me much wise advice during my early years. He in his turn was succeeded by Dr Albert Parker who served for many years as Hon. Secretary of the BNC. He was the Director of Fuel Research, Department of Scientific and Industrial Research. He was later on succeeded by the Chief Scientist for the time being of what was first called the Ministry of Fuel and Power and is now the Ministry of Energy.

Let us return now to the chronological history of the WPC.

After the Sectional Meeting at Basel in 1926 there was a feeling that it, like its predecessor, the First WPC, had for historical reasons been very largely electrical in content. Therefore what I will describe as the fuel interests in Great Britain were anxious that there should be a conference devoted to fuel. Hence the Fuel Conference held as a Sectional Meeting of the WPC in London in 1928. During that conference I overlapped with my predecessor Mr Burt who was responsible for its organisation and I served a brief apprenticeship in preparation for my own appointment and the departure of Mr Burt.

Owing to some misunderstanding on the part of my successor, it was not fully realised that those Sectional Meetings of the WPC which had labels hung round their necks were just as much Sectional Meetings as those without labels. I refer to three: the Fuel Conference, London 1928, already mentioned; The Chemical Engineering Congress of the WPC held in London in 1936 and the Fuel Economy Conference held at The Hague in 1947. ¹

I now come to my own appointment. I was a history graduate of the University of Oxford. After leaving Oxford I joined for about a year and a half the Foreign Department of the British Metal Corporation, later renamed the Amalgamated Metal Corporation, dealing in non-ferrous metals. I found this work uncongenial and resigned in May 1925. I then kept myself, with the help of some small private means, as a freelance journalist travelling widely in Albania and the remoter parts of Greece and Yugoslavia. My greatest achievement was perhaps an article published in *The Times* on Albania in the year 1925. In 1927 I became a member of the Royal Institute of International Affairs and remained a member for over fifty years. At the age of twenty-six I thought it was time I settled down, and through the Oxford University Appointments Board I received a temporary appointment as an attache at the predecessor of UNESCO. Its name in French is "Institute International de Cooperation Intellectuelle de la Societe des Nations". There I was employed during the first six months of 1926 on the compilation of a "Who's Who" of the world's intelligentsia. Shortly after that appointment terminated, I saw an advertisement in *The Times* for a Secretary for the WPC. I was one among about thirty applicants interviewed, so far as I can recall by Dunlop only, and it was I who was chosen. I was helped by influential introductions, but perhaps even more by the fact that I had recently ceased working for an international inter-governmental organisation. My appointment was on probation beginning in October 1928, but I was confirmed in office both as Secretary of the IEC and of the BNC with effect from 1st January 1929, I can mention here that I continued to serve in both offices until I retired at the age of 65 at the end of February 1966.

After the Basel Sectional Meeting and the Fuel Conference there were in 1929 two Sectional Meetings: one held in Barcelona and the other in Tokyo, the latter in association with a World Engineering Congress held at the same time. Dunlop did not attend either of these meetings and I cannot help thinking that

this is the one mistake that he made: allowing for two meetings to take place in the same year and without adequate time for preparation. I recall that to my horror I found - if my recollection is right - that the BNC presented only one paper at each of these Conferences. I did not go to Tokyo, too young and inexperienced for the expense involved, no doubt. But I did go to Barcelona where I was upbraided by the Spanish National Committee because no meeting of the IEC was to be held in that city at the same time. If I remember rightly, the 1929 meeting of the IEC was held in Paris. In any case it was presided over by Dunlop who presumably could not get sufficient leave of absence from his organisation - BEAMA - to attend the Barcelona and Tokyo Sectional Meetings.

I now pass to the first conference for which I was wholly responsible, both as International and British National Secretary: this was the Second WPC held in Berlin in 1930. There were, I believe, over 5,000 participants, the largest number to attend any meetings of the WPC either before or since. Unhappily, Dunlop was ill at the time and so was unable to preside at the meeting of the IEC which, on the basis of my recollection, was presided over by the First Vice-Chairman at that time, the late Dr Eduard Tissot of Basel who was also an admirable presiding Chairman. There followed the depression and there was no further meeting of the WPC, until the Scandinavian Sectional Meeting of 1933. This conference was peripatetic in that meetings of the IEC were held in three capital cities, Copenhagen, Oslo and Stockholm, although all the technical proceedings took place at Stockholm. There was also an excursion with no technical proceedings whatever to Helsinki in Finland. Dunlop was present at the 1933 Sectional Meeting, although obviously unwell, as was shown for example by his very polite refusal to accept a dinner party which was to have been given to his honour by the Czechoslovak Minister - not Ambassador in those days - at Stockholm.

The next event to be recorded with infinite sorrow is the death of Dunlop (he had had ill-health for some time, but had returned from a clinic in Switzerland to London apparently well) which occurred in May 1935. I will leave Dunlop for a moment, but not without recording that he was held strongly in my memory and, I think I can say, in reverence, for many, many succeeding years, tributes being paid to him by, among others, O C Merrill who was Director of the Third WPC held in Washington D.C. in 1936 and by myself when I made my farewell speech at Tokyo in 1966. I should explain that when I retired at the end of the previous February I had been appointed adviser of the IEC till the close of the Tokyo Sectional Meeting. I received no salary during that period, only my expenses.

Dunlop's successor as Chairman both of the IEC and the BNC was Sir Harold Hartley, an unusual man in that he had started his career as a university teacher - what we call in England a "don" - at my own college at Oxford, Balliol College, where he was a tutor and Fellow in chemistry. Then he was taken by Lord Stamp to become a Vice-President and Director of Research of the old

London Midland and Scottish Railway: in the meantime he had become a member of the Royal Society (F.R.S.); later on he was to serve in succession as Chairman of British European Airways, of the British Overseas Airways Corporation and of the Scientific Advisory Committee of the Central Electricity Generating Board. The last appointment I think likely to have been due at least in part to his work as Chairman of the IEC and BNC of the WPC. Hartley, who regarded himself as a chemical engineer, was responsible for the fact that in 1936 there was held the Chemical Engineering Congress of the WPC, Mr Burt returning to be General Secretary whereas I was International Secretary. This was a success and but for the war a Second Chemical Engineering Congress of the WPC would have been held in Tokyo in 1940. That proposed Congress was of course cancelled.

I now come to the Third (Plenary) WPC, held in Washington D.C. later in the year 1936, i.e. after the Chemical Engineering Congress. At first the organisation of the Washington Conference was in the hands of the utilities and manufacturers and so forth connected with fuel and power. But for reasons of their own they decided to withdraw. The organisation was then taken over by the United States Government, the only meeting of the WPC or WEC ever to have been held at the direct invitation of a government as opposed to a host National Committee.

The Director of the Third WPC was the late Mr O C Merrill to whom I already referred. People active in the New Deal were responsible for the organisation of the Conference, the sessions of which were held, among other places, in Government Auditorium in which President Roosevelt himself spoke and pressed a button which started the operation of what is now known as the Hoover Dam.

I should now backtrack a little and say that the French Government some time in the Twenties had formed the idea of forming an International Commission on Large Dams; it approached other countries through the diplomatic channel and objection was raised to the proliferation of international non-governmental bodies with official participation. So, after a long period of argument and, I might say, of intrigue, it was finally decided that, as large dams are mainly used for the generation of electricity, the International Commission on Large Dams should be formed as part of the WPC, its full title being the International Commission on Large Dams of the WPC. The first Congress on Large dams was held in Washington D.C. concurrently with the Third WPC. Meetings continued to be concurrent up to the meeting held in New Dehli in January 1951, after which they were no longer held concurrently, and under strong pressure from some of the member countries the formal connection with the WPC was brought to a conclusion, although the most harmonious relations have continued to exist between the two bodies. From its commencement the International Commission on Large Dams had a Central Office in Paris. Participation was through National Committees which in some countries were constituted as subcommittees of the National Committee of the WPC, e.g. in Great Britain and in Germany, So I added to my posts that of

Secretary of the British National Committee of the International Commission on Large Dams; a similar pattern being followed in Germany where the Secretary of both bodies was Dr Lehmann. I should add that I received no separate salary for my work as Secretary of what was known for short as the British National Committee on Large Dams.

I should at this point repeat that the first President of the WPC was the Earl of Derby who was of course not an engineer and whose appointment I might describe as decorative. All subsequent holders of the post of President - an appointment invariably made by the host National Committee for Plenary Meetings - have been very distinguished engineers. The second President, as I think I already mentioned, was his Excellency Dr Oskar von Miller, the founder of the Deutsches Museum in Munich.

At the time of the Third WPC, the United States National Committee nominated Dr William Durand, an extremely distinguished scientist. At this point I ought to say that the practice had grown up of organising study tours to be held immediately after the conclusion both of Sectional Meetings and of Plenary Conferences. Although private business in the United States was not concerned with the organisation of the Third WPC, it did very generously arrange post-conference Study Tours which took place in two special trains which travelled, starting from New York, up into Canada, re-entered the United States at Niagara Falls, then crossed the Northern United States up to the State of Washington, then travelled down to Oregon, to San Francisco; from there to the Southern United States, visiting on the way the Tennessee Valley Authority, one of the proudest achievements of the American New Deal, and then ending up again in New York. Such post-conference Study Tours were, I wish to emphasize, a very important part of successive meetings of the WPC and one of which I believe Dunlop would entirely have approved as they fulfilled one of his primary objectives, if not the primary objective, which was to bring people of different nations together.

After 1936 there was a Sectional Meeting at Vienna in 1938, a rather unhappy meeting because it took place shortly after the "Anschluss" i.e. the union of Germany with Austria or rather the incorporation of Austria into Germany. The German National Committee of the WPC to their credit left the organisation of the Vienna Sectional Meeting to those who had composed the Austrian National Committee, which of course ceased to have any formal existence. It was found necessary, in obedience to Nazi wishes, to remove one only member of the Austrian Committee, who unhappily happened to be a Jew.

After 1938 there succeeded the war years. I worked in a British Government Department, the Admiralty. But with the knowledge and approval of the British government I was allowed to continue to assist Sir Harold Hartley to maintain continuity, remaining in touch with such National Committees of the WPC as was possible so to do. I should explain that during the early years of the war, Sir Harold transferred the Acting Chairmanship to Ing. G J T Bakker who was the Chairman of the Netherlands

National Committee. But after the invasion of the Netherlands it was necessary for Hartley and myself to resume what we could do to keep the WPC alive. I interpose that Mr Bakker with great bravery withstood an attempt of the German National Committee under Nazi influence to bring about the removal of the Central Office of the WPC from London to Berlin. Mr Bakker pointed out that it was quite impracticable to hold a representative meeting of the IEC during the war, and such a representative meeting alone could have made the decision to move the Central Office, which according to the Constitution as it was and as it remains, is to be in London, unless otherwise decided.

As soon as the war was over, in November 1945, I was released on unpaid leave at the request of Sir Harold Hartley from my duties at the Admiralty and organised the first post-war meeting of the IEC held in London in November 1945. At this meeting an invitation was accepted by the IEC for a Sectional Meeting to be called the Fuel Economy Conference of the WPC - a subject matter no doubt due to wartime exigencies - to be held at The Hague in 1947. This was the first post-war Meeting; it duly took place and was a success. What is also remarkable is that it was attended by participants from Germany. I believe this was the first important post-war conference to be attended by ex-enemies. I do not doubt that the Italian National Committee also sent representatives.

Then came the question of who should have the honour of organising the first post-war Plenary Meeting. A bid was put in by the French National Committee, but the BNC claimed the right as the country of origin of the WPC to be host for what was effectively the full restarting of the WPC. So the Fourth WPC was held in London in 1950, the opening sessions taking place at the Central Hall. The opening was to be addressed by Princess Elizabeth, as she then was and by the Duke of Edinburgh, but she was unable to attend as she was about to give birth to her child, the present Prince of Wales. Also the Duke of Edinburgh was unable to attend (they had been joint patrons), because he was on naval service in the Mediterranean. So in his absence the Fourth WPC was opened by the Minister of State for Foreign Affairs.

In 1950 Sir Harold Hartley, who had served for so long as Chairman of the IEC with great capacity and as a most admirable presiding officer, was nominated by the BNC to serve as President of the WPC for the ensuing six years, a place he filled with great distinction, always either attending meetings of the Conference or alternatively sending messages: activities continuing until the end of his life at the age of 94.

Sir Harold Hartley was succeeded as Chairman of the IEC by Sir Vincent de Ferranti - British despite his Italian name - who was Chairman of the well-known electrical and electronic manufacturers, Ferranti Ltd. He was also a past President of the Institution of Electrical Engineers. He was perhaps the ideal presiding officer over meetings of the IEC, equalling in charm D N Dunlop, He was a professional Chairman and presided most admirably over meetings of the IEC, but he left the running of

the Central Office very largely to the Secretary, i.e. to myself. This was partly because, unlike Dunlop and Sir Harold Hartley, he did not live in London, but at a place near Manchester where the principal works of Ferranti Ltd were situated.

After the London Conference in 1950, in January 1951 - at perhaps rather too short an interval - there was held a Sectional Meeting of the WPC in New Dehli; simultaneously, as already mentioned, with a Congress of the International Commission on Large Dams and simultaneously also with the first Congress of the International Commission on Irrigation and Drainage. All three Conferences were followed by study tours which toured the length and breadth of India, in two special trains, changing into narrow-gauge trains in the south for Bangalore and Mysore where standard gauge trains cannot operate. This was a wonderful experience, but the organisation of the Indian National Committee both of the Conference and of the study tour was not quite as good as it might have been. I should add however, that the enthusiasm and wishes of our Indian host that we should see everything involved us in inspecting a power station by moonlight, also in getting up at about six a.m. each day.

The next Sectional Meeting was held at Rio de Janeiro in 1954, again succeeded by study tours.

Then there was the Fifth WPC at Vienna 1956 and a Sectional Meeting in Belgrade in 1957 and another one in Montreal in 1958. I should explain why there were three Conferences in successive years. The Yugoslav National Committee was anxious to be host for the Fifth WPC, but it was considered that the facilities they would offer were not sufficient to enable them to be satisfactory hosts for a Plenary Meeting. The French National Committee, which had always been somewhat jealous of the fact that the WPC had its Central Office in London, decided by one vote not to confirm its proposal to invite the WPC to hold its Fifth Plenary Meeting in Paris. In fact - jumping many years - the first Congress of the organisation to be held in France took place at Cannes during the present year 1986.

As it was not considered suitable for Belgrade to be the host for a Plenary Meeting in 1956, they were 'fobbed off' if you like, with a Sectional Meeting which was duly held in Belgrade in 1957. An invitation had already been accepted from the Canadian National Committee for a Sectional Meeting to take place in Montreal in 1958. Hence it came about that three Conferences were held in consecutive years. After the Conference in Montreal in 1958 there was a Sectional Meeting in Madrid in 1960. Then the Sixth WPC - Plenary Conference was held in Melbourne, Australia in 1962. Sir Willis Connolly, the Chairman of the Australian National Committee, succeeded Generaldirektor Holzinger who had been selected by the Austrian National Committee as President of the WPC at the meeting held in Vienna in 1956. This was an outstandingly successful Plenary Meeting, and I do not think I exaggerate, when I say it was the best organised of any meetings of the WPC during my many years as

Secretary. That is not excluding the Fourth WPC in London in 1950 of which I was General Secretary as well as continuing to hold the offices of Secretary of the IEC and of the BNC. I must pay a very warm tribute to the fine organisation by the Australian National Committee of the 1962 Conference. Again it was succeeded by study tours, and these extended in one instance into tropical Australia. I was privileged to accept the invitation to participate in this tour in the company of my wife. The tour went by way of Brisbane, the capital of Queensland to the northern tropical part of Queensland, visiting the well know mine at Mount Isa and also the uranium mine at Mary Kathleen. The Australian Plenary Conference was succeeded by a Sectional Meeting held in Lausanne in 1964; the last for which I was wholly responsible. Again there were study tours. I retired at the end of February 1966, as already stated, but was privileged to attend as advisor and guest the Sectional Meeting at Tokyo in 1966, during which I received an enormous cheque from the National Committees throughout the world as well as some gifts in kind.

In 1965 the time had come to choose my successor: A panel, of which I was a member, interviewed in London some fifteen or twenty applicants, shortlisted two, one of which was Mr E Ruttley. A meeting of the IEC of that year was held in Haifa, Israel, and the two shortlisted candidates to succeed me were paid their expenses to attend a Selection Committee, appointed by the IEC. Despite the fact that I think nominally the appointment still lay in the hands of the Chairman, the new Chairman, Lord Hinton of Bankside, who had succeeded Sir Vincent de Ferranti in 1962, thought it proper that the IEC should have a hand in the final selection. Also, since my successor would be Secretary of both bodies, it was proper that the selection should, on the basis at least of residence and preferably of nationality, be British. Mr Ruttley was the unanimous choice of the Committee, which consisted of representatives of several countries including, in addition to Lord Hinton representing on this occasion both the IEC and the BNC, also Monsieur Etienne from Switzerland and a representative of the American and USSR National Committees. Mr Ruttley overlapped with me from November 1965 until my retirement at the end of February of the following year. His qualifications were that he had taken good degrees in modern languages, first at a Welsh university and then at the University of Oxford. He then had served as political advisor to the Iraq Petroleum Company serving in that capacity in one of the Gulf States, Qatar. He was and I have no doubt still is a wonderfully good linguist with a perfect command of French - his wife is a French speaking Swiss - also of Italian as well I suppose as of Arabic.

During Mr Ruttley's period of office, which is terminating at the end of the present year, very great changes took place. First it was decided that Conferences should be of one type only, held at intervals of three years. So there was no Sectional Meeting after that held in Tokyo in 1966. In the second place it was decided to change the title from World Power Conference to World

Energy Conference (WEC), the reason being that in the United States "power" had become to mean almost exclusively electrical energy. This involved no change in countries whose language is based on Latin as is the case e.g. of France and of Italy; though the German title "Weltkraftkonferenz" has been changed into "Weltenergiekonferenz".

The third great change that took place was that Lord Hinton of Bankside was the last Chairman of the IEC who was also Chairman of the BNC, and he served a single term only. Of all the Chairmen of the IEC both before and, I think, since his time, he was the most distinguished. He was a Fellow of the Royal Society (F.R.S.), he has been Managing Director of the UK Atomic Energy Authority, then Chairman of the Central Electricity Generating Board. He was very famous as a scientist and he was also an admirable, patient presiding officer over the IEC. However, some objection had begun to be expressed by some National Committees that the Chairman of the IEC since the foundation - since Dunlop's time, Dunlop having been the first Chairman - had always been British. It was obviously convenient having the Chairman of the BNC also Chairman of the IEC. But that convenience was, in the opinion of the National Committees to which I referred, outweighed by other factors and it impaired somewhat the international character of what had now become the World Energy Conference. So, at the 1965 meeting of the IEC Lord Hinton stated that he would not seek re-election for a second term, and he was empowered to state that the BNC would not put forward a candidate to succeed him and if any other Committee proposed a British candidate such a candidate would not be supported by the BNC. So it came about that when Lord Hinton's term of office as Chairman of the IEC came to an end in 1988, he was succeeded by an American, Mr Walker Cisler.

After the meeting of the IEC held in Munich in 1980 there was a further change of nomenclature to "Congresses" of the World Energy Conference.

I should revert for a moment to explain why it was found unnecessary to have Sectional Meetings. This was basically due to the ease of travel by air, also to the proliferation of Technical Committees which gave an opportunity to senior engineers, economists and others concerned with energy to meet together outside the ambience of a Congress of the WEC. When I retired there was only one technical committee: that was concerned with the preparation of statistics on energy resources to which I will come in a moment. There are now about twenty technical committees, including one jointly with another body, the "Union Internationale des Producteurs et Distributeurs d'Énergie Electrique". The income of the IEC when I retired was about £7,000. In 1984 it was £213,000. That reflects the enormous increase in the work performed by the Central Office in London, and above all by its Secretary-General.

The WPC had its Central Office at number 36 Kingsway, London, WC2 for the whole period since its foundation, except for a few months, when it went next door to 62 Lincoln's Inn Fields. In 1947 the Central Office moved to Grand Buildings, Trafalgar

Square. Subsequent removals were after my time. During this period we were the guests of BEAMA which as far as I can recall charged us no rent. The second preliminary point I want to mention is that the WPC and the WEC have what is known as charitable status; that means that what they do falls within the ambit of charitable ends. They are a non-profit making organisation. They are not taxed on any excess of income over expenditure in any given year.

To continue with my after-thoughts : I may have given the impression that the Earl of Derby was a mere nonentity. This was not by any means the case. He was a former Secretary of State for War and a former British Ambassador to France. All that I meant to say was that he lacked any special qualifications as Patron or President of the First WPC and as the first President of the WPC as a permanent organisation.

I will now speak briefly about Lord Hinton of Bankside. He served, as already stated, as Chairman of the IEC from 1962 to 1968. It is a tribute to the importance of the WPC and also of course of the BNC, that this most distinguished scientist undertook the chairmanship. He became a Life Peer. He was also, what is perhaps even more important, a member of the Order of Merit the membership of which is limited to 24 persons of the utmost distinction in all walks of life.

In my time as Secretary of the International Executive Council, consultative status or relations were granted to the WPC by the following inter-governmental organisations:

United Nations - Economic and Social Council (ECOSOC) - UNESCO
International Atomic Energy Agency (IAEA) -
World Meteorological Organisation

I do not know whether, if at all, these relations have in any way been affected by the continued membership of the Republic of South Africa.

In addition, there were relations with a large number of International Non-Governmental Organisations, including the following:

International Commission on Large Dams (continuing after the severance of formal links between the Commission and the WPC)
International Gas Union
Union Internationale des Producteurs et Distributeurs d'Énergie Electrique (UNIPEDE)
Conférence Internationale des Grands Réseaux Electriques a haute Tension (CIGRE)

A full list of present international relationships will be found in the Annual Report of the WEC for 1985: Representation. See pp 7-9.

The WPC was a founder-member of the Union of International Engineering Organisations, formed under the auspices of UNESCO. (I believe that the word "Technical" has now been substituted for the word "Engineering" in the title of this organisation). A principal object of this body (DATI) was to avoid clashes of date between congresses in adjacent fields of interest. In this it was not always successful. UATI also made small grants towards the cost of the publications of its member-

organisations, provided out of a grant by UNESCO whose representative attended all meetings.

When Mr Ruttley succeeded me he held until 1968 the same two posts as I had held, as Secretary of the IEC and of the BNC. When Lord Hinton's term of office as Chairman of the IEC expired in 1968, Mr Ruttley became the first Secretary-General of the WPC, which was shortly to be renamed WEC, I had only one individual under whom to serve in between Meetings of the IEC, since the same individual was the Chairman both of the IEC and of the BNC. Henceforward, Mr Ruttley would serve under a non-British Chairman and under a Chairman of the British National Committee. I believe the IEC pays the larger proportion of his salary.

I cannot pay too strong a tribute to Mr Ruttley during the period of over twenty years which have seen the transformation of the WEC from an organisation, by far the most important activity of which was the holding of Plenary and Sectional Meetings. The WEC, although still holding Congresses at intervals of three years, now engages in various activities relating to energy including about twenty technical committees, as I already mentioned. This work involves the Secretary-General in almost incessant travel outside the UK. His crowning achievement was perhaps finding a formula acceptable to both the Peoples Republic of China and to Taiwan, whereby the former became a member of the WEC, while the latter, Taiwan, continued in membership. That is the end of what I might call my after-thoughts.

I now come to the publications of the WPC and subsequently the WEC. I would like to state first that, of course, it is clearly to be understood that I am only a primary authority during the period of my secretaryship which terminated at the end of February 1966. For any subsequent period it is Mr Ruttley who is the primary authority. A periodical publication entitled "World Survey" under the Editorship of Dr Walter Johannes Stein was issued with the words "Published under the Auspices of the WPC." I had little connection with this periodical apart from providing factual information about the activities of the WPC. I do not know when publication began. It was peculiarly the child of Dunlop and, shortly after his death, the IEC decided on economic grounds that publication should cease. The most important publication from the foundation of the WPC remain the bound Transactions of successive conferences, both Plenary and the now discontinued Sectional Meetings. These contain all the individual papers presented at a given Conference or Congress, together with the General Report on each section, and most important, a record of the oral discussion. Further, since 1933 there has been simultaneous translation (interpretation) of the discussions. (There has been some argument as to whether this 1933 simultaneous interpretation, which was carried out by the Ericson Co at Stockholm, was the first to be employed by an international organisation; the possible rival in this respect is the Comintern in Moscow.)

D N Dunlop showed his interest in energy resources by bringing

about the publication in 1929 of "Power Resources of the World - Potential and Developed" written by Mr Hugh Quigley, the economist on the staff of BEAMA. This was the precursor of the "Statistical Yearbook of the WPC." Successive issues were published by the Central Office covering the years from 1933 to 1958. In 1952 the United Nations began their "J" Series of statistical papers on the annual production, trade and consumption of the various solid, liquid and gaseous forms of energy in different countries and geographical areas of the world. Following negotiations undertaken between Sir Harold Hartley and senior officials of United Nations in New York City, at the headquarters of the United Nations - negotiations at which I was also present - it was stated that the UN was not proposing, because of their political sensitivity, to publish statistics on resources, only annual statistics. Therefore the WPC agreed to cease publishing annual statistics and to publish only statistics on resources. The UN in its turn offered to help the WPC with procuring statistics from countries which were not, or not then, members of the WPC. This arrangement was approved by the IEC of the WPC at its meeting in 1959. A consultative panel was then appointed by the TEC on planning the details of the new series, the first of which was published in 1962 and was presented and discussed at a Plenary Session of the Sixth WPC held in Melbourne, Australia, in that year. The first volume of the WPC "Survey of Energy Resources" published in 1962 was followed by a second WPC "Survey of Energy Resources" in 1968, which was published in conjunction with the Plenary Session of the WPC of that year (in Moscow) and was edited by Dr Albert Parker who I, as I have already said, was for so long Honorary Secretary of the BNC. The most recent publication of this series is "Survey of Energy Resources 1986" (14th edition), one volume in English and French.

There were also important publications by National Committees. I will give two instances only: in 1928 as a British contribution to the Fuel Conference of the WPC there was published "Technical Data on Fuel", edited by Mr H M Spiers. This was considered such an important publication that during the war years I was enabled to obtain from the paper control operated by the British Government a special quota of paper so that it was never allowed to go out of print. At the present time the BNC has published the 7th edition (the price now is £30, an enormous increase - originally it cost 6 shillings); it is no longer a publication, needless to say, which an engineer or economist or other user could put in his spacious pocket. Another publication was that by the German National Committee issued in the late 1920s and the early thirties. This was "Elektrizitätsgesetzgebung der Kulturländer der Erde" - "Electricity Legislation of the Civilised Countries of the World". Most unfortunately, after the first four or five volumes had been issued, the German National Committee was obliged to discontinue publication owing to the fact that the author was a Jew, despite strong representations made by Sir Harold Hartley to the then German National Committee. So far as I am aware

publication has not been resumed.

There are an enormous number of publications today by the different National Committees, all of which will be found listed either at the end of each Annual Report or in an enclosure therewith.

I now come to the end and I wish to conclude by saying that none of the work undertaken by the WPC/WEC would have been possible had it not been for the combination of vision and ability of one man, Daniel Nicol Dunlop. Had Dunlop not planted it so firmly, the WPC might never have been founded as a permanent organisation, equally it might not have survived the inevitable interruption due to the war of 1939-1945.

Tape recorded in July 1986 at Mr Gray's and revised on 28 October 1986 by Thomas Meyer.