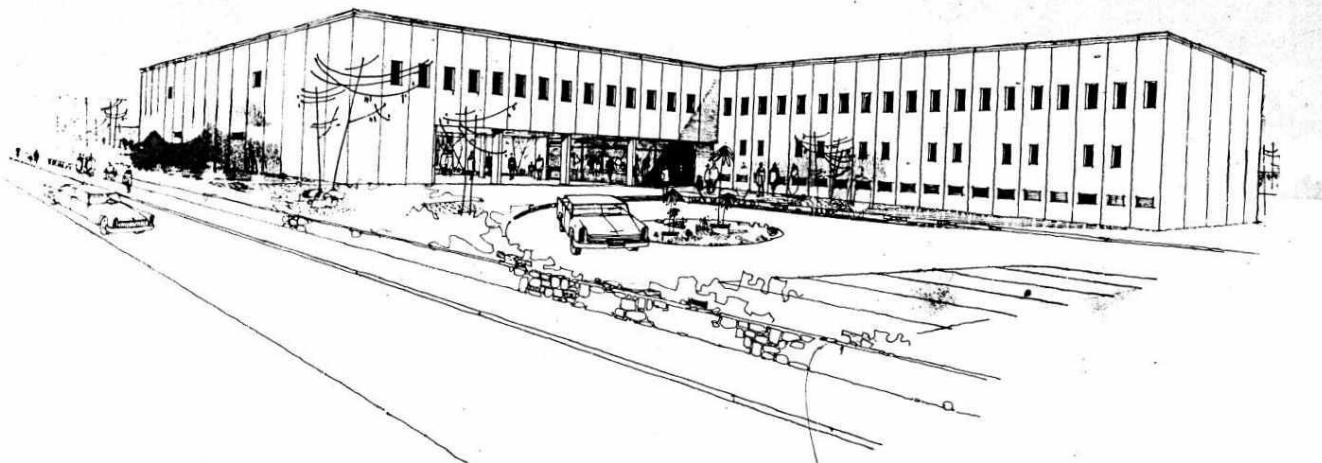


Instructional Television Trust

PARA YACO

INSTRUCTIONAL TELEVISION TRUST



The Aims of the Instructional Television Trust

- The Instructional Television Trust (I.T.T.) has been set up by the Edmond James de Rothschild memorial group to operate its pilot project for instructional television in Israel.
- The Ministry of Education will be responsible for educational content; I.T.T. will be responsible for all the television aspects of the work.
- The pilot project is designed to test and try school television and the adaptation of the new medium to the educational needs of Israel.
- Thirty-two schools (partly elementary and partly secondary) have been attached to this pilot project.
- I.T.T. will operate the pilot project for an initial period, before handing it over to its successors who will undertake to continue instructional television and extend it throughout the country.
- I.T.T. hopes that it will make a modest contribution to the advancement of teaching and its methods.

Who designed it?
Who built it?

ACKNOWLEDGEMENTS

The construction of the new studio building, and the acquisition and installation of the equipment have been complex operations, especially as this is a novel project for Israel.

This work required a team effort of experts, advisers and contractors. We have given their names in the pages which follow immediately and would like to express our thanks to them all.

Instructional Television Trust

SUPPLIERS

I.T.T. issued an international tender for the equipment and, on the basis of this tender, contracted for the purchase of the equipment with two main suppliers, namely E.M.I., U.K., and C.S.F., France.

E.M.I. Electronics Ltd. England

The studio equipment, the equipment for the schools and the antenna at the Eitanim transmission station have all been bought from E.M.I. and installed by them.

Compagnie Générale de Telegraphie sans Fil France (C.S.F.)

The transmission equipment, except for the antenna, has been bought from C.S.F., France.

CONTRACTORS

Mifal Habniya Shel Hakibbutz Hameuchad

The building contract for the studio building was awarded to Mifal Habniya Shel Hakibbutz Hameechad, on the basis of a tender. They have carried out the whole construction and have, in this work, co-operated with the following main sub-contractors.

E. Hertz, Engineering Ltd. . . .	Air conditioning
Asher Feuchtwanger Ltd. . . .	Electricity and telephones

MINISTRY OF POSTS, ISRAEL

By an agreement made between the Ministry of Posts and I.T.T., the Ministry have undertaken to install the transmission equipment at the Eitanim station. They have further undertaken to operate the transmitter on behalf of I.T.T.

ADVISERS, ARCHITECTS, ENGINEERS

Mr. Sidney Bernstein, Chairman, Granada TV, U.K.

At the very beginning of this project, I.T.T. turned to Mr. Sidney Bernstein for advice and guidance. He has readily made available to us the services of his Director of Engineering and his whole technical department. I.T.T. has availed itself of this kind help for the planning of the technical facilities, the provision of special facilities for films or kinescopes and many other matters. It is difficult to see how we could have commenced, or how we can continue, without Mr. Bernstein's constant help.

Mr. Reginald Hammans, Director of Engineering, Granada TV, U.K.

Mr. Sidney Bernstein kindly agreed that Mr. Hammans should advise and help I.T.T. in all technical matters. I.T.T. turned to Mr. Hammans at the beginning of the planning stage. He prepared the outline plan of the studio building; he has visited Israel several times to advise our architect and technical personnel; he has prepared most of the specifications for the equipment and has advised, and is still advising, I.T.T. on current technical problems. His help and advice have been invaluable.

Mr. Hedley Gower, Border Television Ltd., Carlisle, U.K.

Mr. Gower has worked in association with Mr. Hammans and has advised I.T.T. on technical issues, especially during a period when Mr. Hammans was, for personal reasons, temporarily not available for this work.

Mr. Gower then stepped into the breach upon the request of Mr. Bernstein of Granada, and gave us of his time and knowledge when we needed it most.

The late Professor Yochanan Ratner, Architect

Architect Yochanan Ratner was entrusted with the planning of the studio building. He undertook this job when his physical strength had begun to ebb, but in his creative abilities he remained a nobleman and a master of his profession to his last day.

The studio building is his final creation and, we are sure, it will honour his memory.

Professor Josef Eidelman, Engineer

Professor Eidelman co-operated with Professor Ratner as the construction engineer of the building.

Mr. Mordechai Shoshany, Architect

Mr. Shoshany took over the architectural direction of the studio building after the death of Professor Ratner. Mr. Shoshany has loyally continued the work on the lines laid down by Professor Ratner.

Advisers

Mr. L. Herzl Schaudinschky	Acoustics
Iscovitsch & Shapira, Engineers Ltd.	Air conditioning
Yanai Ltd., Electrical Engineering	Electricity and telephone
Mr. Y. Elisha, Consulting Engineer	Sanitary installations
Meler and Co.	Landscaping
A. Sella and Co.	Roads
Mr. Rafael Jair	Interior decorations

Mr. Arie Stechler

Resident engineer during the period of construction.

OPENING CEREMONY SPEECHES AND GREETINGS

The following is the text of the speeches and greetings which have been delivered at the festive opening of Instructional Television on March 24th, 1966.

Lord Rothschild —

Shalom,

This is an abacus. An old-fashioned computer. Very effective really.

But you won't find it in use in many modern countries today, although I believe that it was one of the earliest examples of the application of technology to education. Science and technology have developed new techniques since then : so has education.

The combination of the two is the reason for our being here today.

Another educational instrument has been developed fairly recently. No panacea, no cure-all, but a very significant technique that has been helpful in many countries and, one which I hope, will prove helpful to education in Israel.

The story of Instructional Television for Israel really began, when I wrote to Mr. Abba Eban, then Minister of Education, in December 1961. I told him that our Group was considering a project involving instructional television for Israel.

I added that we wanted our representative, Mr. Rowe, to visit America and Europe to examine facilities there, but only if the Minister were to appoint his representative to join in the study trip.

Mr. Eban appointed Dr. M. Schapira, the Headmaster of the Hebrew University Secondary School. Dr. Schapira and Mr. Rowe made an extensive tour of the major educational television centres in both continents.

You will remember, of course, that when Moses had to send out scouts, he chose 12 men of whom only two were really effective. We meant to profit from this experience and contented ourselves with two from the beginning.

Dr. Schapira and Mr. Rowe submitted their report in June 1962, and we soon informed the Minister of our readiness to set up a pilot instructional television project in Israel.

I believe some reflections followed in the Knesset, and in March 1963, Government approved our project. Mr. Eban wrote to me on the 7th of March, 1963.

Mr. Abba Eban, Minister for Foreign Affairs —

On the 7th March, 1963, when I was Minister of Education and Culture, I wrote the following letter to Lord Rothschild :—

“The Government approves the proposal of the Rothschild Group to set up a pilot project for instructional television in Israel. This pilot project will be of an experimental nature and is to operate for a number of years...

The educational aspects of the pilot project, namely, the educational content of the programmes, the selection of the subjects to be taught, the selection of the studio teachers, the type of schools, whether elementary or secondary, teachers' seminars or other institutions, will be determined by the Ministry of Education and Culture.

The Government joins the Rothschild Group in the hope that instructional television shall become an important educational tool in Israel and that it may make a significant contribution to the integration of immigrants in Israeli society. The pilot project which the Rothschild Group will initiate and operate may lay the basis for instructional television in the country.

The Government will always be happy to assist and cooperate with the Rothschild Group and wishes it every success in this project, which is another link in the long chain of undertakings of the Rothschild family contributing to the development of Israel...”

Three years have passed since this letter was written. The Parliament gave its approval to the proposal for the experimental instructional television. Studios have been established and we are now well ahead with the project.

I would like to express my confidence that the utilization of this medium will promote the educational progress of our

country and will be of significant value to education in development areas. Nothing that is religiously or politically controversial, will be shown and I am sure that the nation as a whole, and especially its future generations, will have reason to thank all those who have brought to fruition this project.

It is in that spirit that I congratulate the Rothschild Family and the Instructional Television Trust, and I am glad to know that the project will go forward under the direction of my successor and colleague, Mr. Zalman Aranne.

Mr. Zalman Aranne, Minister of Education and Culture —

We are privileged today to take part in the first beginnings of instructional television in Israel.

We all hope that this all-embracing medium will help us to improve our achievements in teaching and education, as it has helped in other countries.

Instructional television will not make redundant the classroom teacher nor will it free the pupil from his own intellectual effort, for no technological medium can replace the creative effort of man. On the other hand, instructional television will be an important help to the classroom teacher in his endeavour to give to his pupils a more profound understanding of the subject. It will raise the pupil's alertness and his capacity for learning.

The instructional television lessons will, in the first stages of this trial project, be telecast to about sixty forms in thirty-two schools in three subjects, namely, biology, mathematics and English.

We are taking part today in the beginning of a project which is important and of great significance.

If one asks the question how much time will be needed for the trial period of this project, it will be difficult to reply to the question. But we shall surely not err if we say that every television lesson, even after the end of the trial project, will always carry within itself an element of experimentation.

Ladies and gentlemen, the House of Rothschild has been faithful to its great tradition through initiating instructional television in Israel and through setting it up and operating it for a trial period. We would like to thank the Rothschild Family sincerely for this contribution of theirs.

The Ministry of Education and Culture which is responsible for the contents of the lessons which are to be telecast, will do everything in its power to help make this project a success.

It is a pleasant duty for me to thank all the studio teachers, the classroom teachers, the producers, the inspectors and all the workers who, through their joint and devoted efforts, have brought us to this festive moment.

Narrator —

It was in 1882 that the work of the Rothschilds was begun in Israel. Baron Edmond de Rothschild laid the foundations for the Israel of today. Ours is a country that bestows no titles, but in the case of Edmond de Rothschild, the Yishuv spontaneously called him the "Father of the Yishuv"...

In 1954, the remains of Baron Edmond de Rothschild were brought to his eternal resting place and now he is with us at Ramat Hanadiv.

His son, James Armand de Rothschild, carried on his father's work as President of PICA.

It is interesting to note that while he was active on behalf of the Jewish Brigade, Prime Minister Eshkol was a Brigade Sergeant.

Together, father and son, established or helped more than 50 settlements, and it was to a large extent these colonies that determined the boundaries accorded Palestine in 1918.

The PICA colonies developed from modest beginnings to flourishing communities, such as Rishon Le Zion or Pardes-Hanna.

In 1957, shortly before his death, Mr. James A. de Rothschild wrote to the Prime Minister that PICA had completed its task and would withdraw after handing over all its lands to the national authorities. One of the letter's passages stated: "I do not intend to take leave of you or of Israel. My interest in the development of Israel is abiding, even if PICA must cease to operate..."

I shall want to examine whether I shall be able to make some modest contribution, in the future, towards the advancement of science, art and culture in Israel".

It was Mrs. James A. de Rothschild who forwarded the letter to the Prime Minister.

Mrs. James A. de Rothschild —

Shalom,

In accordance with my husband's wishes expressed in that letter, our group has been active in support of science, art and culture in a number of very different ways.

Research projects have ranged from agricultural pioneering in the Negev to experimental tuition classes for immigrant children. Scholarships, laboratories and computers have been given to the Higher Institutes of Learning and many aspects of religious instruction have had our support. We are now planning for new Regional Libraries and for a Botanic Garden.

It has been our privilege to carry out the final dream of my husband's life, the building of a Knesset worthy of the representatives of the People of Israel.

In all our activities, we have shown a bias towards education because the future of any country depends so largely on the standard of learning of its children. Television in education is a new medium but it is already widely recognized as a helpful tool. To establish this new service, we formed a special company, the Instructional Television Trust, or I.T.T. for short. My cousin, Lord Rothschild, agreed to serve as Chairman of this Trust. I would like to wish him, and all who serve with him, every success in their endeavour.

Lord Rothschild —

Thank you very much.

When we decided on this project, we realized its inherent difficulties. We accepted the challenge because our Group does not consider itself simply as money-givers, but rather as builders and innovators.

It seemed to us that the vicious cycle brought about by the increasing need for mass education, with the resultant teacher shortage and the lack of facilities, could not be broken by conventional methods alone. All agree about the need for a break-through and that instructional television may help, since this medium is suited to mass education: it can reach every part of the country; one and the same lesson can be received by 40 or 400 or 4,000 pupils. It frees the classroom teacher from much of his routine work, permitting him to devote more time to each of his pupils. School television can bring to every classroom complicated experiments involving costly equipment or introduce the children, wherever they may live, to outstanding scholars or personalities.

It will also upgrade the classroom teacher through his regular attention to the television lessons.

There are many other advantages, but I believe the point is clear. Throughout our work we have been encouraged by the Ministers of Education and their Ministry, for which I would like to thank them all. We realize that this project can succeed only if we are given the wholehearted cooperation of the country's educators.

A word now about the organization of I.T.T. Our Board which consists of myself as chairman, Mr. Gottlieb, and Mr. Rowe, set up a Management Committee to advise the Board and the executives of I.T.T. The Management Committee was to act as a watchdog, if necessary We trust it will bark, long and well, before it decides to bite.

Programme execution lies in the hands of the Chief Executive, supported by three directors, all of whom you will meet.

But first let us get acquainted with Mr. Gottlieb, the co-Chairman of the Management Committee.

Mr. R. Gottlieb —

The arrangement between the Rothschild Group and Government provided for a clear division of functions. The Education Ministry was to be responsible for educational content, syllabus, selection of teachers, selection of schools and grades.

ITT put up all the required buildings, purchased and installed the equipment, accepted responsibility for the production of the TV lessons and will operate the trial project for the initial period. I believe I can say that ours has been the most successful of marriages. Cooperation has been very close and harmonious and in these circumstances there was very little work for our Management Committee. What do you say, Dr. Rinott?

Dr. H. Rinott —

Today we recall the first discussions which took place about six years ago, concerning the idea of instructional television. We approached the study of the new medium and its chances, with searching curiosity and high aspirations. In these discussions, there were many who had doubts and hesitation.

There remains, however, a long way from the provision of teaching and visual aids for the teacher, and the ability of the teacher to make imaginative and effective use of these aids.

Today we are assembled here to express our best wishes to the first beginnings of this important educational project.

Instructional television contains a great challenge and a vast potential ; but we know that even in countries where instructional television is used, there is still much to be learned as to the best ways in which it can be fruitfully utilized.

As in any other experiment, here, too, we have to combine a daring approach with careful thinking, through follow-up of the quality of our achievements, and be prepared to learn from our mistakes. Our success will depend on the teamwork between the studio team and its teachers, and the schools, with their classroom teachers.

Many efforts have been exerted to prepare for this first day, when the first lesson starts on its way to the schools.

Those who have seen the people who are engaged in this work, their initiative, devotion and enthusiasm, their

work under tension, will understand why this project is truly called "Instructional Television Trust". Their trust and devotion augur well for the success of this project. There is reason for their belief that television will strengthen our educational work, increase the interest of educators and broaden horizons and knowledge of our children.

Today, let us thank all those who are responsible for this project and the educationists among them who work for the advancement of instructional television in our country ; our thanks to Mr. Frishmann, Dr. Blumenthal, the teachers and the advisers.

And now I shall yield my place to the man, who has indefatigably been guiding the project from the start — Mr. M. Rowe, Chief Executive of the Instructional Television Trust.

Mr. M. Rowe —

Permit me to emphasize, at the very outset, that I.T.T. is a pilot project and that our programmes are still in the nature of experiments, not the final products. We are learning all the time and shall constantly strive to improve the programmes. We have literally circled the globe to study instructional television and our friends in Italy, France, England, Sweden, the United States, Japan, India and other countries have been most helpful. In the final analysis, however, we must evolve our own methods of production. We have been most fortunate in having the services of three heads of departments, all experts in their fields.

May I first introduce our Director of Education, Dr. Blumenthal. Until he joined us he was a Chief Inspector in the Ministry of Education.

Dr. P. Blumenthal —

The heart of our job is to prepare the script which contains the actual lesson and to present it before the cameras. It is a team operation requiring the talents of various experts.

Once the Ministry has determined the contents of a lesson, we bring the team together.

Why don't we look in on a meeting now underway?

Participating in a typical discussion are the studio teacher, the programme producer, script editor, art director and a research psychologist.

We shall, at first, teach three subjects — mathematics, science and English — for grades seven and nine. A total of 32 schools will be linked to the I.T.T. project, most of them in the Lod-Ramla-Jerusalem area.

This is a new medium and its full educational potential is not yet known. But we do hope to find out. We also intend to make certain that every slide, every film, every pause shall have educational meaning.

Mr. M. Rowe —

Once the script has been approved, it is ready for production. From here on, the Director of Production is captain of the ship. Our Director of Production is Professor Edward Stasheff, of the University of Michigan.

Prof. E. Stasheff —

Since television was an entirely new medium in Israel, it was necessary to start practically from the beginning... from "beraishit", as you might say. Yet in a period of only a few months, we had to have highly trained people in the following positions:

Reading from left to right, we see here, in the Production Control Room, the Assistant Director, the Producer-Director, the Vision Mixer and the Vision Control Engineer, who is a member of the Engineering Department.

What are their duties? The Assistant Director watches the time with his trusty stop-watch and warns the cameramen of the next shot the Producer will require. The Producer-Director is the captain of the production team and must integrate the pictures taken by the studio cameras with slides, film sequences, music, voice tapes, sound effects and other elements too numerous to mention.

The Vision Mixer, at the instructions of the Producer-Director, punches the buttons and moves the faders that take us from one camera to another, from film to slide, from camera to film, and every possible combination of these visual elements.

In the adjacent Sound Control Room we find the Sound or Audio Engineer, who controls the volume of each microphone and blends in music, sound effects or voices previously recorded on sound tape. But that's only on the Control Room Level. Down on the studio floor, in addition to the two Cameramen, you now see the Floor Manager and his two Floor Assistants. If that sounds elaborate to you, I can assure you that this is the minimum of staff required for effective teaching by television. In the instructional television profession we always say that it takes ten people to put one teacher on the air.

In addition to them, we require an art staff, which is headed by Mr. Zvi Geyra, and which makes the title cards and also constructs many ingenious devices which provide animation, not on film, but on the studio floor.

We also employ a staging Technician who builds settings and display stands: and his assistant, who can create a three-

dimensional model of anything from a miniature pyramid or Bedouin well, to a plywood cow.

Now let's go back to that rehearsal we saw in progress just a minute ago.

And while these preparations are underway, we never lose sight of our basic aim: to instruct, and to provide the classroom teacher with material which he himself cannot bring into the classroom. We constantly check on the right pace for the pupils. We seek new ways to involve them, to break through their passivity, and to keep the camera constantly focused on the concepts which we present. For after all, this is instructional television, and if it does not lead to even better teaching, it has no right to be on the air.

Mr. Rowe —

Thank you, Professor Stasheff. Our success will depend in large part on the quality of the picture which the pupils will see in the classroom. And this, in turn, depends on the skill of our engineers and technicians. Now the third of our Directors is Graham Phillips.

Mr. Phillips, I don't believe you are a sabra?

Mr. Phillips is a BBC engineer, seconded to us, who has supervised the installation of our equipment and has also been responsible, together with Dr. Yona Peless, our Chief Engineer, for the training of our "All-Israeli Engineering Staff." Now, Mr. Phillips, perhaps you could show us the engineering operation involved in transmitting the lesson from the studio to the classroom?

Mr. G. Philips —

Let us start with the television camera. The image received by the camera is routed through the Production

Control Room we have just seen, to the Central Control Room, where the sound and vision signals are finally processed. From here the signals go to our microwave link transmitter, so called because it links the studio building to our transmitter at Eitanim, near Jerusalem. From there the signals are radiated by our main transmitter over the countryside of Israel to the schools.

Sounds rather simple, doesn't it? But now let us see these various operations as they are actually done.

Here we have the Dimmer Boards, and it is through these that we can brighten or lower the intensity of the production lights in the studios.

These are the lights in the studio, and you can see our lighting engineer making an adjustment for a forthcoming school production.

Here are studio television cameras in action. The camera operators have to be highly trained for this work.

This is the heart of the television system, for in this Central Control Room we form the final picture which is broadcast to the schools. The final picture must now be linked to our transmitter at Eitanim, and this is the microwave link which does that task.

You see here on the roof of our Ramat Aviv studios the parabola which directs the signals, both vision and sound, to our Eitanim transmitter which is operated for us, under a special arrangement, by the Ministry of Posts.

This is the tower of the Ministry of Posts at Eitanim. On this tower is the parabola which receives the signal from the Ramat Aviv studios and passes it to our main television transmitter. It then radiates the signal to the schools which we have equipped with television receivers.

Now you have seen a little of the complex technical operation. I may add that I have set up television systems in various parts of the world, and ours here is second to none

as far as its technical equipment is concerned. My job here in Israel is nearly done, and I should like to take this opportunity to wish every success to all who helped in this venture.

Mr. M. Rowe

And we, in turn, thank you for your good wishes, Mr. Phillips, and all the help you have given us.

And now we would like to bring to you messages from two outstanding scholars who seem to have the same habit that we have adopted — saying it by television.

The first message comes from England, from Sir Isaiah Berlin, Professor of Sociology and Political Science at Oxford University.

Sir Isaiah Berlin

Seeing is believing. Television is an enormously powerful instrument, as everyone knows. Where pictures and newspapers reach hundreds of thousands of people, the radio and television reach hundreds of millions. Leaders in all kinds of spheres of existence, in politics and in the arts, and everyone else, are made and unmade by it. In the hands of unscrupulous or ruthless people, or people of no intellectual tendencies, it can do untold damage. In the hands of civilized and high-minded people, it can do a vast amount of good.

It is an enormously powerful instrument of almost unexampled and hitherto still uninvestigated powers. In the case of educational television, some of these dangers are not present. In the case of scrupulous, high-minded, civilized people who really have an educational aim in view, it can do an enormous amount of good, more than it has ever been possible before in the whole history of mankind. In the case of Israel I feel optimistic. I feel that among the Jews there never has

been any fear of the intellect, fear of ideas, fear of knowledge. And although the amount of knowledge has vastly increased and it is extremely difficult to select and know what to do, yet it seems quite clear that in a community which has been traditionally inclined towards knowledge and a life founded upon knowledge, this task must be easier.

Israel consists of people who have come from all four corners of the earth and there is no instrument so far-reaching and so capable of promoting integration and civilization and the creation of proper values as television and, in particular, educational television. For this reason, I genuinely and sincerely predict a great constructive future for this new instrument and congratulate those who have made it possible.

Mr. M. Rowe

Our thanks to Sir Isaiah. We much appreciate his encouraging words and now a greeting from America, from Prof. Robert J. Oppenheimer, the Director of the Institute for Advanced Studies at Princeton, New Jersey.

Prof. R. J. Oppenheimer

No age has faced problems of education as onerous and vast as ours. We have, as everyone knows, an enormous growth of really new knowledge, mostly about nature, partly about history. We have a rapid growth of skills and techniques. The cultures in the societies in the world, in all their diversities, are relevant to one another in a way that hardly has a parallel in all human history. No one thing is going to resolve this educational problem. It is partly the problem of the young. Increasingly it is also the problem of everyone's lifetime. It is partly going to rest on ancient techniques of the teacher and

even of the prophet, of the master and his disciple. But it cannot be that alone. There has to be an effort to spread knowledge deep and spread it broad.

It seems to me that for a people that has based its millennial-old history largely on a belief in learning and on the value of wisdom, the problems of the education of the young and the continued education of the old have a very enduring and central importance for their future, for their present, and even an important place for their survival. And that is why I am glad to have this moment to welcome the establishment of an educational television programme in the State of Israel.

Mr. M. Rowe

We are grateful to Prof. Oppenheimer for his kind words.

Now, we would like you to see a portion of a lesson that will be transmitted to the thirty-two schools in the present network. Again, we ask you to bear in mind that these are our initial efforts. We promise a steadily improved product.

(Excerpts from school broadcasts were shown at this point).

Lord Rothschild —

There it is. The magic and power of television, this time being applied to assist traditional educational techniques. We have not set out to revolutionize education in Israel, but to play a modest part in its evolution. Everywhere one seeks to increase productivity; this project may help to increase educational productivity.

You may ask: What happens when the trial period is over? What then?

Our Group plans to hand over all the buildings, equipment and installations, together with the know-how and the trained personnel, to our successors who will foster instructional television and extend it throughout the country.

There may still be an unspoken question: what will the Rothschild Group receive by way of consideration? The answer is our usual one: nothing, we do not seek anything in return.

I should perhaps correct my final statement in the television recording we have just seen. If we succeed — and we are confident we shall — we shall receive something that is valuable to us, namely the sense of having added another link to the close bond which has tied our family to Israel for well over 80 years.
