

The 110th Technical Conference, Montreal

A Report From the Conference Technical Programs Coordinator

The present report, we are pleased to say, is that of a Conference which was most successful. Many favorable comments about this Montreal Conference have been received. The Canadian members of the SMPTE went to great lengths with the most meticulous preparations and planning. Hotel arrangements, stylish decoration of the entrance area to session rooms and exhibits, a most elaborate and carefully assembled papers program, a fine Equipment Exhibit, good projection facilities and, for the first time on a large scale, electronic audio-visuals such as monitors, videoplayers and tape machines, all contributed to an atmosphere of achievement that did not go unnoticed. The Canadian members of SMPTE certainly have reason to be proud of the results of their work.

As befits an international conference such as this one, participants came from many distant points: Australia, Moscow, England, Germany, Japan, The Netherlands, Mexico City, Belgium, Paris and Porto Alegre (Brazil). The major part of the registrants were of course from Canada and the United States. Between participants in papers sessions and visitors to the Equipment Exhibit more than thirty-five hundred persons were counted.

The general Papers Program of the 110th Conference was Editorial Vice-President, Richard E. Putman's overall responsibility. Papers were carefully selected and assembled by Program Chairman Leslie H. Holmes.

For the Symposium at the Montreal Conference the Affairs Vice-Presidents' consensus was that the title should be "Video Cartridge, Cassette and Disc Player Systems" under the general responsibility of K. Blair Benson. Symposium Program Chairman was Stanley F. Quinn who built up a most effective program of papers, panels and practical presentations, highly praised by the audience.

The Conference Program was made up of 15 individual sessions with 97 papers, taking into account some last-minute additions and cancellations. Four of these sessions, with a total of 19 papers and two panel discussions, made up the Symposium on videoplayers.

Furthermore, during Wednesday the Association of Cinema Laboratories held concurrently their own morning and afternoon sessions, which were very well attended, thus adding a special interest to the general program activities.

The heaviest burden of organizing all SMPTE Conferences during his elective term, and all the contingent obligations, falls to the Conference Vice-President—Harry Teitelbaum during 1971–1972. The distance between Los Angeles, where he resides, and Montreal added greatly to his load of work, and he did not hesitate in making several trips to Canada in order to be helpful to the Canadian organizers.

Local Arrangements Chairman was Harold Greenberg who, in the Conference Vice-President's own words, "did a magnificent job." He enlisted very efficiently the help of the Canadian Government and obtained many extras for the Society. Teitelbaum and Greenberg, as well as the above-named Program Chairman, were most aptly aided by the rest of the members of the Conference Committee, composed as follows:

Deputy Program Chairman: Arnold C. Schieman

Deputy Symposium Chairman: Walter F. Bantin

Associate Program Chairmen: Television Systems, Maurice Doucet; Motion-Picture Systems, Geoffrey R. Oliver; Television and Film in Education, Real Michaud; International: Motion Pictures, Hans Chr. Wohlrab; International: Television, C. B. B. Wood

Associate Symposium Chairmen: Perspective Session, Gerald G. Graham; Utilization Session, Alex R. MacGregor; Technical Session I, Lloyd C. Harrop; Technical Session II, Eugene Prévost; Publicity, Jacques Lambert

Program Topic Chairmen: Television Systems, Michael W. S. Barlow; Laboratory Practices, Raymond W. Payne; Motion-Picture Systems, Laval Fortier and Jean Roy; Sound Recording, Roger J. Beaudry; Television and Film in Education, Alex R. MacGregor; Photo-Instrumentation, Donal L. Clayton; Projection and Theater Design, William C. Shaw.

Symposium Committee: Sandy Day, Paul Martell, Bruce M. Read, Jean L. Vandette

Arrangements Vice-Chairman: Tex Rekert

Administrative Assistants: Arnold Schieman, Albert Chevalier, Geoffrey Oliver

Banquet Chairman: Murray Briskin

Exhibit Chairman: Jean L. Vandette

Finance: Jack Kligman

Get-Together Luncheon: Harvey Greenberg

Hospitality: Robert Desrosiers

Hotel Arrangements: Ken Hand

Ladies' Program: A. Dunstan Russell

Membership: Bruce Prentice

Projection and Recording: Chester Beachell

Publicity: Harold Eady and Dave Novak

Registration: Findlay J. Quinn

Short Films: Gerald G. Graham

Transportation: Bernie McAllister

Get-Together Luncheon

On Monday at noon, after the close of the morning sessions, the traditional Get-Together Luncheon took place with a capacity attendance. SMPTE President Wilton R. Holm was the first of the luncheon speakers:

Excerpts of President Holm's Speech

It is fitting, first of all, to pay tribute to the many significant contributions, both to our Society and to our Industry, made over the years by our Canadian Members. It is especially fitting that I do this today, when one of our Canadian Members is to receive our Society's Top Award, the SMPTE Progress Medal.

It is fitting, too, that I express our appreciation not only to our Canadian Members, but also to their employers, who have had the foresight to recognize that their organizations and ours are both dedicated and synergistically so, to the same ultimate goals: improvement of the motion-picture and television media.

I especially want to thank Mr. George Davidson, President of the Canadian Broadcasting Corp., and Mr. Sidney Newman, Government Film Commissioner, for the splendid support our Society has received from their organizations.

This is not the easiest of times for scientists and engineers. Today, Science and Technology are blamed for most of the sins of modern man. There is an anxiety abroad, lest the soul of our social system grow infirm, and all the world turn barren.

This has come about for two reasons: First, we have spawned a new breed of oracle — the *disaster* Prophets — who, for a variety of reasons, many of which range from self-serving to downright dishonest, cloak themselves in home-made robes of omniscience and proclaim that certain misapplications of technology have brought our world to the *brink of disaster*. And second, there *have* been misapplications of science and technology; but the fact that corrective action is being taken is completely *overlooked* by the disaster prophets, who, themselves, are guilty of misapplying the sciences of *logic* and *epistemology* — the validity of knowledge.



A View of the Get-Together Luncheon.

It is said that men live by truths, and this may be so when men can find the truth. But frequently we live by myths, and these we often come to cherish more than truths.

Today we are having trouble separating the valid from the rhetorical in the constant barrage of pessimism which assaults our ears. We are earnest people, and when gloomy folk get our attention, we listen. The dirge we hear filters through our news media, and soon it gets into the popular culture. As a result we have a pollution of which *no* diaster prophet *ever* speaks.

We have *moral pollution!* And our motion-picture and television technologies are used to further that moral pollution.

For at least five years we have been dolefully warned that we are disintegrating as people; that there is *no hope* in that "oppressive" establishment which the disaster prophet calls "The System." As a result, youth movies — or practically *all* movies, for that matter — are no longer optimistic or uplifting. Instead, they wallow in "naturalism," which has become a modern synonym for despair. Television, too, often reflects a myth that many have come to accept as truth — that in our industrial society, life has become a machine, inevitably crushing human lives.

Now: the *technological* future of our industries is *so* bright that contemplation dazzles the mind. Within the next five years, cable TV and communications satellites, along with commercial TV, will expand the concept of television programming far beyond anything we now know. And as for theatrical movies, one wave of the future may be right here in Canada — The impressive I-Max System now being shown at the new theater at Ontario Place near Toronto.

But if all these marvelous new tools are to be effective, they must be used to present programs that people want to see.

All over the world people are getting fed up with our current interlude of despair. They are beginning to realize that, just as it's a mistake to believe that life automatically gets better and that guardian angels always steer us safely, it is equally a mistake to forget that we have free will to meet any challenge, and that all is never lost.

It is time that we urge our creative people to stop misapplying our motion-picture and television technologies.

As Shakespeare said in Hamlet: "the *Play's* the *thing*," and as Aristotle said: "Show man not at his *worst*, but as he *could* be and *should* be."

I believe that as society finds its way out of the bogs of this current wave of pessimism, movie and TV entertainment will return to the sanity of Aristotle in due time.

But due time is not good enough! The need is *great*, and the need is *now*. Motion pictures and television should lead, not follow.

In an age that glorifies depravity, let us return to showing man at his highest and best — and not as an impossible dream but as a potential open to him in reality. This is just as "relevant" as showing the world's youth seeking to obliterate their own consciousness with drugs.

Let us remember the genesis and the meaning of the word "Hero." Let us recall that wonderful euphoria of walking out of a theater, feeling 10 feet tall because of our empathy with an heroic character on the screen. And then, let us fulfill our destiny — our *raison d'être* — not to wallow in despair or to contemplate cesspools, but to delight the senses, to enlighten the minds, and to uplift the souls of our viewers.

President Holm introduced immediately the guest speaker, the Honorable Gérard Pelletier, Secretary of State of Canada, who delivered a rather philosophical speech, alternating paragraphs in English and French. Here follow some English excerpts of his speech:

Excerpts — Guest Speaker Gérard Pelletier, Secretary of State of Canada

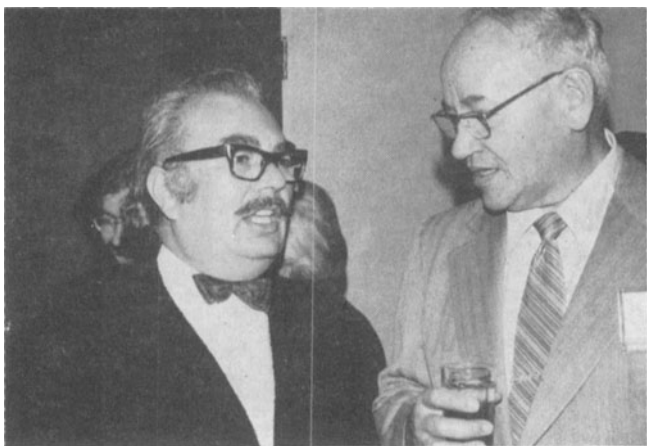
In glancing over the agenda for your conference, I had to acknowledge the very technical nature of the items listed. I do not pretend to have understood everything. . .

With regard to other topics with which I am a little more familiar (use of film on television, broadcasting by satellite, videotapes, cablevision . . .), I would like to have time to hear the reports, if only to discover the limitations of my knowledge. I trust therefore that you will bear with me because I lack the experience and knowledge to discuss these things with you on an equal footing. This does not mean that I do not take an interest in your activities. On the contrary. . .

As Secretary of State, I am responsible to Parliament for policy in matters of broadcasting and culture. Some ten federal cultural institutions including the Canadian Broadcasting Corporation, National Film Board and the Canadian Radio-



The Honorable Gérard Pelletier, Secretary of State of Canada, during his Guest Speaker's Address.



Mr. Sidney Newman, Government Film Commissioner and Head of the National Film Board of Canada, in conversation with President Wilton R. Holm.

Television Commission — to name only those of interest to us today — fall under the jurisdiction of the Secretary of State. A few months ago, as Acting Minister of Communications, I had cause to become more deeply involved also in telecommunications policy.

In the vast field of communications, Canada has attained a position of leadership from the standpoint of excellence and efficiency. The history of communications in Canada is filled with famous names and dates: 1876, Alexander Graham Bell set up the first telephone link in history between two Ontario towns, Paris and Brantford; 1901, Guglielmo Marconi sent the first wireless message from St. John's, Newfoundland, to Poldhu, England; 1950, inauguration of cablevision in Nicolet, Quebec. In 1968 a fresh impetus was given by the new broadcasting act setting up the CRTC, and by the creation of a Department of Communications. These efforts have not been in vain. We now have a national radio-television system (actually two networks, one in English, the other in French) covering almost the entire country despite the obstacle of geography. We have a National Film Board which collects prizes in international festivals as if it were the easiest and most natural thing in the world. We have TELESAT, a joint venture corporation which will soon operate the first geostationary satellite in the world for the purpose of domestic communications. We have the Canadian Radio-Television Commission which, among other things, ensures that the means of communication remain or become the property of Canadians. We have a series of private enterprises, some of which are represented here today, of remarkable dimension and ability. All these public and private bodies have helped to place Canada in the vanguard of developments in the communications field. . . .

At the base of this development, we find long and patient research. . . . Nevertheless, the burden of research falls on private enterprise. The expenditures on research and development in telecommunications in Canada are as follows and I quote from *Instant World*, the recent report on telecommunications: "It is estimated that, in 1969, total expenditures on telecommunications R&D in Canada amounted to some \$94 million. The federal Government spent about \$38 million, made up of \$7.5 million on in-house R&D operations, \$26 million in grants to industry, and \$4.7 million in grants to universities or academic scientists. Net expenditures by industry amounted to \$56 million, but total activity in the private sector is estimated to \$82 million. The single largest telecommunications research establishment in the country is that of Bell Canada-Northern Electric Limited. In 1969, its total expenditure directed to research exceeded \$41 million. Of this amount, government assistance amounted to less than 10 per cent." . . .

But there is another question that most of us, regardless of nationality, ask ourselves, whether we be scientists or not: Where exactly is this advanced technology in communications leading us, if we passively allow it to take its natural course?

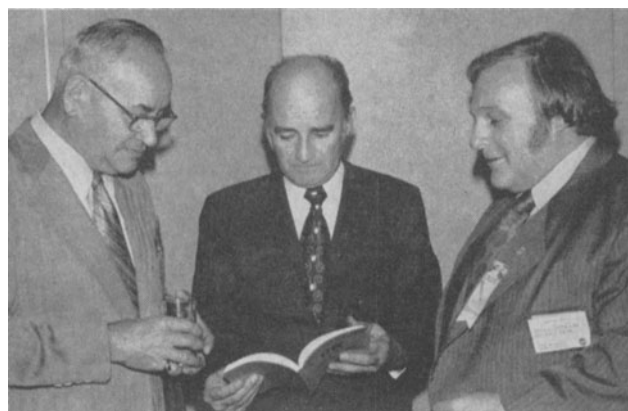
For the moment it is simply a matter of reflecting on the "socio-cultural" consequences of technological and scientific development. . . . Some of the dangers implicit in this situation have now become real. . . .

Man reaches a stage when he is no longer capable of assimilating new knowledge. He can no doubt understand it but it is no longer relevant to his way of life and it may even become a stumbling block in his search for happiness. It is an example of science without conscience. It is what the French sociologist, Georges Friedmann, calls the "civilisation du chauffeur" — the chauffeur civilization — the word "chauffeur" in this case meaning any man who is in control of a machine whose operation he does not understand. . . .

Again, according to Georges Friedmann, what explains the proliferation of the chauffeur is the Great Imbalance between man's power — ever increasing through technological progress — and the moral forces — constant or decreasing — to dominate it. In our technological civilization, man feels inferior to his creations. . . .

Is not one of the causes of the malaise of Western civilization, which we have been discussing at such length for a number of years, precisely this saturation of knowledge accompanied by a certain negligence in the spiritual field? Has intelligence become divorced from soul?

Another problem arising from technological progress in the communications field — equally as great although less imminent — is that of pollution. I am referring to visual and verbal pollution. . . . You will perhaps tell me that scientists and technologists are not responsible for the quality of the image and information, just as the manufacturer of rotary presses cannot be held responsible for the quality of the newspapers or books printed on his presses. But that is an argument which I feel to be unworthy of your work. . . . Today they [industries] have to assume their responsibilities. Whether or not scientists and technologists choose to become interested now or later, the problem of visual pollution is one of increasing concern. Until recently, available means of distribution and production within the communications system were evenly divided. A fair balance was maintained between equipment and the needs of creation and expression. But with the appearance of cablevision, the EVR system and other methods which you continue to invent and perfect, the balance is in danger of being destroyed. The time has come to determine everyone's responsibilities with regard to production. Each new piece of equipment, each new system must be evaluated in terms of the store of words and pictures from which it must inevitably draw. The criteria of rentability and maximum productivity must no longer preside



President Holm, Secretary of State Pelletier and Harold Greenberg, Arrangements Chairman for the 110th Conference (l. to r.), commenting on the French edition of the Synopses Booklet.

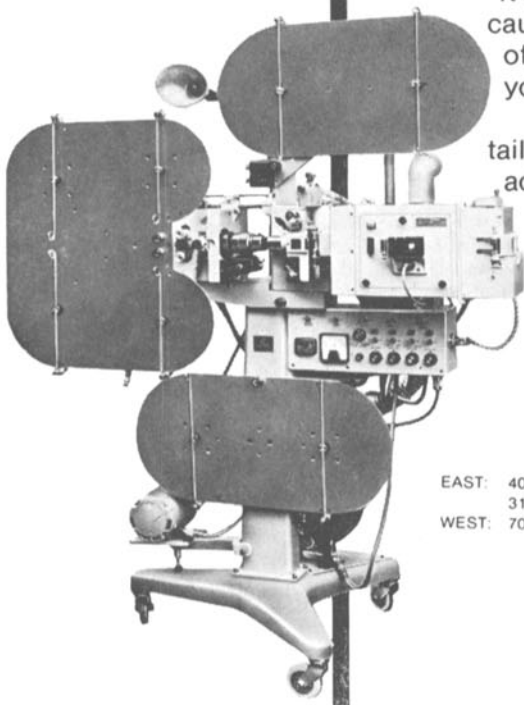
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solely over all decisions. Where is technology leading us? In the final analysis, it is the technologists who will decide.

Today man is pushing back a new frontier, the frontier of his technological adventure. I return to what Friedmann said: "We must adopt a loyal attitude towards technological progress, not deny it but criticize it lucidly, weigh its benefits and possible evils if, on a day-to-day basis, we are to succeed in

dominating, mastering and humanizing it." Man must tame science and technology but he cannot do so without the vigilant assistance of technicians and scientists who must get involved in an exercise of daily self-analysis. They do not have the right to be totally overcome by the fascination of their discoveries. . . .

Canada's Secretary of State was much applauded by an impressed audience.

Awards Presentations

The Fall Conference of the Society is when awards and honors are bestowed on distinguished persons for outstanding achievements. President Holm, assisted by Executive Vice-President Byron S. Roudabush, who read the citations, and by Executive Secretary Denis A. Courtney, presented the Award Medals and Certificates.

President Holm called first the name of Dr. Pierre Mertz who was made an Honorary Member of the Society. Great and well-merited applause gave a warm welcome as Dr. Mertz rose. No less an enthusiastic greeting was received by Rodger J. Ross who was next in receiving the Progress Medal. There follows the complete listing of honors and awards.

Honorary Membership

It is the purpose of Honorary Membership in the Society to honor an individual who has performed eminent service in the advancement of engineering in motion pictures, television or in the allied arts and sciences. The citation for Dr. Mertz is:

Honorary Membership in the Society is awarded to Dr. Pierre Mertz in recognition of his lifelong activity and contributions in the field of transmission problems relating to telephotography and television, and especially for his investigations leading to the understanding of visibility of noise in television images.

Dr. Pierre Mertz joined the American Telephone and Telegraph Co. in 1919, shortly after graduating from Cornell. He returned to Cornell for his Ph.D. and subsequently was with the AT&T Research and Development Dept., which later became part of Bell Telephone Laboratories, until 1958.

Dr. Mertz's work at Bell covered telegraph, picture transmission, television and general broad-band transmission and communications. In 1934 he and F. A. Gray published in the *Bell System Technical Journal* a classical paper on "A Theory of Scanning and Its Relation to the Characteristics of the Transmitted Signal in Telephotography and Television" which provided the NTSC with the means of producing compatible color television.

Dr. Mertz is the author of many other important papers. Three that have been published in the *Journal of the SMPTE* are: "Perception of Television Random Noise," "Data on Random-Noise Requirements for Theater Television" and "Influence of Echoes on Television Transmission."

Since his retirement from Bell, Dr. Mertz has been a general consultant and has continued his long service to the Society as Chairman of the Board of Editors. The level of quality maintained by the *Journal*

of the SMPTE has been due in great degree to his technical expertise and wise judgment.

In 1962 Dr. Mertz was awarded the SMPTE David Sarnoff Gold Medal. He is a Fellow of the SMPTE, the IEEE and the OSA, and a member of the American Physical Society and of the Inter-Society Color Council.

Honorary Membership was also announced at Montreal as awarded to George Mitchell, with the formal award to be made later in Hollywood.

George Mitchell, Consulting Engineer for the company he founded, Mitchell Camera Corp., and pioneer designer of professional motion-picture cameras, has about 50 patents on photographic apparatus to his credit. From 1936 to 1940 he worked with the Hale Observatory on Solar Instruments and from 1940 to 1944 for the office of Scientific Research and Development, Mt. Wilson group. Among Mr. Mitchell's other contributions were a method of milling glass with diamonds and the design of a fast shutter for Air Force mapping. He received an Oscar in 1952 and is an Honorary Member of ASC. Mr. Mitchell joined SMPE in 1922 and has been a Life Fellow of the Society since 1964.

The Progress Medal

It is the purpose of this award to do honor to the individual by recognizing outstanding technical contributions to the progress of engineering phases of the motion-picture and/or television industries. The citation for Rodger J. Ross reads:

The Progress Medal, the highest award which the SMPTE can bestow, is intended to honor a person who has made outstanding technical contributions to the progress of engineering phases of the motion-picture or television industries. It is most appropriate, at a time when there is a division and competition between these two media, to honor a man who has devoted his energies to the improvement of films made for television, the adoption of sound engineering practices in the television film operations, and the continuing education of both television and film personnel. The combination of a missionary's zeal with a sound technical approach has enabled Rodger J. Ross to function effectively in the interface between film and television, contributing to the progress of both industries.

(See the Biographical Note for Mr. Ross in the November 1971 *Journal*, pp. 912-913.)

E. I. du Pont Gold Medal Award

It is the purpose of this award to do honor to the recipient by recognizing outstanding contributions in the development of new techniques or equipment which have

contributed to the improvement of the engineering phases of instrumentation and/or high-speed photography. The citation for Mr. Whitley is:

The E. I. du Pont Gold Medal Award for 1971 is presented to Ernest M. Whitley for his pioneering contributions to the development of instrumentation cameras, notably the high-speed rotating-mirror camera designed for the U.S. Navy, which was the forerunner of many other rotating-mirror cameras, the Hycam prism camera, and the Bulova timing camera.

Ernest M. Whitley, Senior Project Engineer and Corporate Secretary of the Redlake Corp., graduated from Benson Polytechnic, Portland, Ore., and has a wide variety of design work and many patents on explosives, optics, cameras and medical equipment to his credit.

During World War II he designed special shipyard machinery for Henry J. Kaiser and spent three years at North American Aviation. During this period he also designed the race timer, basically a streak camera, now used for the Olympics.

After the war Mr. Whitley, while associated with the firm of Beckman & Whitley, Inc., developed a whole group of ultra high-speed framing and streak cameras, as well as explosive devices for missiles and high-precision meteorological equipment for the Signal Corps. Subsequently his work has included many items of medical equipment including centrifuges, amino acid analyzers, spectrophotometers, aut pipettes, etc.; the designing of automatic equipment for semiconductor production; and, since 1962, the line of 16mm high-speed rotary-prism cameras and 16mm high-speed intermittent cameras marketed by Red Lake Laboratories, now Redlake Corp.

Mr. Whitley received the Karl Fairbanks Award 1968, IR-100 1967, Master Design Award (Product Engineering) 1960, and First Place in the New Product of the Year (Machine Design) 1954.



Rodger J. Ross, who received the Progress Medal of the Society, and Dr. Pierre Mertz, who was made a Honorary Member (l. to r.), celebrating honors received.