

Motion Picture and Television Technology in the Orient, Southeast Asia, and Australia:

A Report

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Introduction

The following Report covers the five countries visited by a delegation representing the SMPTE, the visits stemming from an invitation by Carl Liu, President of the Television Academy of Arts and Sciences, Taiwan, extended during the 121st Conference. The delegation consisted of Robert M. Smith, SMPTE President; Roland J. Zavada, Engineering Vice-President; Lincoln Endelman, Vice-President for Photonic Affairs; Roderick T. Ryan, Vice-President for Motion-Picture Affairs; and Paul Yang, a Society member who acted as coordinator for the trip.

In October 1979, a delegation of SMPTE members from Taiwan attended the Society's 121st Conference in Los Angeles, among them Carl Liu, who requested that a meeting be arranged with SMPTE officers for the purpose of discussing possible formation of an SMPTE section in Taipei. At that same meeting, Liu, as representative of the Academy, extended a warm invitation for an official visit by a delegation representing the Society to observe first-hand the television and motion picture industry and also to hold further discussions about the possibility of forming an SMPTE Section in Taipei.

The Society approved acceptance of the invitation, and, due to the distance, time, and travel expense involved, the members of the delegation felt that the Society could use this opportunity to have an exchange of ideas with other related Society organizations as well as with leaders of motion picture and television industries in the Orient, Southeast Asia, and Australia; consequently it was decided to extend the trip to include Japan, Korea, Hong Kong, and Australia as well as Taiwan.

One reason for the decision to visit five countries is that the Society has recently become heavily involved in the trends toward international standardization of the new technology for television, and we believed that this extended trip would enable us to acquire first-hand information and receive advice from representatives of en-

gineering organizations, industry, and government agencies in the five countries to be visited.

It was decided to hold an official meeting for all SMPTE members living in Southeast Asia. A special meeting was held in Hong Kong for the reason that the Society has recently received a request to consider forming a Section in Hong Kong. The members of the delegation were especially pleased to have the opportunity of meeting these members, since, because of distance, many members in the five countries have had very little personal contact with our Society.

The members of the delegation felt strongly that the trip should include Australia since the Society has had a very active Section in that country for the past 10 years. A request was sent to the Australian Section Officers asking that a meeting be coordinated with our visit to their country, thus enabling the members of the delegation to have the opportunity of meeting the Section Officers and members and to participate in one of their local section meetings.

The following Report represents the views and impressions of the five members of the SMPTE delegation.

The SMPTE delegation left the United States on 22 May 1980, arriving in Tokyo on 24 May. On 29 May they left Tokyo for Seoul, South Korea, leaving there on 31 May for Taiwan where they remained until 5 June, then leaving for Hong Kong where they remained until 10 June, leaving on that date for Sydney, Australia, where they arrived on 11 June. On 13 June they left for

the United States, landing first at Los Angeles and then at New York on 14 June. The number of meetings and discussions and the impressions received and information exchanged during a little more than three weeks was very intense.

Any notion that a tour to the Far East was a visit to countries that might be somewhat backward technically should be immediately set aside. The managers and technical experts were abreast of current technology, future trends, and the quality of their hardware matched or exceeded that found in typical laboratories and television facilities in the United States. There were some differences in techniques or approaches to the solution of problems, but basically the objectives of the countries we visited paralleled ours, i.e. putting a quality image on the motion picture screen and the transmission or distribution of a quality video image. Most of the entertainment programming produced anticipated a distribution beyond the borders of national interest, thereby necessitating an understanding of video and film systems of other countries as well as the necessary grasp of entertainment and social tastes. Our first stop was:

JAPAN

The Japan Camera and Optical Instruments Inspection and Testing Institute (JCII) is an independent organization established to ensure the quality of Japanese cameras and optical instruments exported from Japan. On behalf of the Japanese Government, JCII does not allow the ex-



Fig. 1. A meeting at JCII with Robert Smith, Roland Zavada, and Lincoln Endelman with Seishi Nakamura, Executive Director, (L) and Masahiro Tano, Vice-President, briefing the group on the organization and accomplishments of JCII.

A contribution submitted by Lincoln L. Endelman, Aerospace Systems, c/o Perkin-Elmer, 411 Clyde Ave., Mountain View, CA 94040; Roderick T. Ryan, Eastman Kodak Co., 6706 Santa Monica Blvd., Hollywood, CA 90038; Robert Smith, Du Art Film Laboratories, Inc., 245 W. 55 St., New York, NY 10019; Paul Yang, Paul Yang & Associates Inc., 685 E. California, Pasadena, CA 91106; and Roland Zavada, Eastman Kodak Co., Bldg. 69, Rochester, NY 14650. This paper was received in final form on 25 August 1980. Copyright © 1980 by the Society of Motion Picture and Television Engineers, Inc.



Fig. 2. Smith, Zavada, and Endelman at JCII.

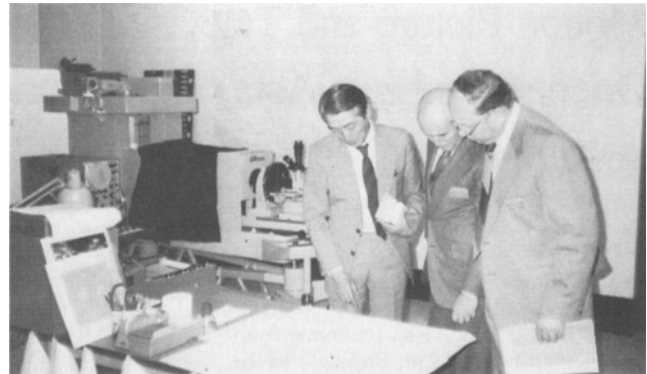


Fig. 3. Masahiro Tano (L) and Seishi Nakamura (R) explaining some technical matters to Dr. Roderick Ryan.

port of these products unless they have passed the JCII's export inspection, which is carried out in two stages — type test and lot inspection. Type test is related mainly to reliability and durability and lot inspection to product performance. JCII also carries out intensive research to improve quality and it develops instruments to evaluate and measure the performance of products.

JCII has some 120 staff members. About 70 of them are fully qualified engineers in the fields of physics, electronics, mechanical engineering, and photography, and these 70 are engaged in inspection, tests, research, and development.

The institute is an independent, non-profit testing organization. Its operating revenue is obtained entirely from inspection and testing fees.

Other activities include distribution of various equipment and materials necessary for inspection and tests: resolution test charts, movie projector test films, gauges, flash meters, etc.

In the area of national and international standardization, many JCII engineers have been serving as JIS (Japanese Industrial Standards) subcommittee members and/or ISO (International Organization for Standardization) Working Group members. Moreover, since 1967, JCII has been acting for the Japanese National Standard Body as the Japanese Secretariat for ISO Technical

Committees 36 (Cinematography) and 42 (Photography).

The SMPTE delegation was given a tour of the facilities and attended a meeting with Masahiro Tano, Vice President; Seishi Nakamura, Executive Director; and Hideki Kondo, Chief, Research Lab. Activities of both organizations in the standards and test film areas were discussed (Figs. 1-4). Also, Mr. Tano had some questions regarding the new SMPTE 16-mm magnetic sound test films.

Our short visit to the Institute quickly confirmed its reputation as the organization that has made Japan one of the leading quality camera centers of the world. With the cooperation of manufacturers, their quality control function can begin early in the design stage through to the statistical sampling and release of the finished product for overseas distribution. Their role is one of photographic and optical experts coupled together with an understanding of environmental demands upon the hardware transcended to the role of functioning to some extent as a customer advocate in the handling and use of the finished photographic hardware. In their role of quality control experts, they function hand-in-hand with the Japan Motion Picture Equipment Industrial Association in the development of the Japanese position in national and international standards in photography. Toyotaka Yamamoto is the leader of the

Japanese delegation to international standards in motion picture photography, and it is through the Motion Picture Equipment Industrial Association that industry as well as users are contacted to formulate the Japanese opinion (Fig. 5).

The delegation met with members of the Japan Motion Picture Equipment Industrial Association to discuss mutual interests in photographic equipment standards and the work that this organization is doing as sponsor of ISO/TC-36 (Fig. 6). Roland Zavada described the engineering activity of the SMPTE and its administration of the ISO Secretariat.

The Motion Picture and Television Engineering Society of Japan

A rewarding evening was spent with representatives of the motion picture and television industries in Japan, the meeting having been arranged by Kenichiro Matsuoka, Chairman of the Motion Picture and Television Engineering Society of Japan (MPTESJ) (Figs. 7, 8). The meeting, attended by leading members of that society, afforded an unparalleled opportunity for the exchange of ideas and information among members of twin societies with the same basic aim — that of advancing motion picture and television technology.

The Motion Picture and Television Engineering Society of Japan had held its an-



Fig. 4. President Smith presenting a set of standards to Kenichiro Matsuoka, Executive Vice-President, Asahi Broadcasting Co. Ltd. and President of MPTESJ.



Fig. 5. Nobuki Hanamura, Executive Manager of Japan Motion Picture Industrial Association, greeting President Smith.



Fig. 6. Meeting with members of the Japan Motion Picture Industrial Association. Haruo Teshi, Managing Director of Elmo Co. Ltd., is at the left and next to him Matsuo Maeda of Kodak, our interpreter.



Fig. 7. Smith and Kenichiro Matsuoka at their reception.

nual conference, including an industrial exhibit, just two weeks prior to our arrival. Their conferences differ somewhat from ours in that they place less emphasis on technical papers and much more on the presentation of equipment. Their society also participates through the Japan Motion Picture Equipment Industrial Association in the development and formulation of motion picture technology for their country, taking into consideration special national requirements.

During the meeting SMPTE President Smith explained the important reasons for this delegation's visit to the Far East, and he described the activities of the SMPTE in engineering and standardization. Roland Zavada described the engineering activity in more detail with special emphasis on digital video. Roderick Ryan gave a status report on the motion picture industry in Hollywood and Lincoln Endelman explained his new title of Vice-President for Photonic Affairs and described some of the current activity in the instrumentation field.

Later, Endelman told the group of his meeting with Professor Tsuneyoshi Uyemura at the University of Tokyo. Professor Uyemura introduced him to his staff and students and demonstrated some of his equipment. The professor is currently using holographic interferometry to study the effects of different vibrations of the ear drum and bones in the ear canal.



Fig. 8. Dinner party hosted by MPTESJ. Kenichiro Matsuoka, President, third from left. Seated at his right is Toshio Kobayashi, Vice-Chairman. (He is President of Tokyo Laboratory Ltd.)

Laboratories and Studios

The delegation visited the Far East Laboratories (Fig. 9) and discussed processing and printing with Tsuneo Utsumi, Executive Managing Director; Hideo Ichikura, Managing Director; and Akira Okumura, Assistant Manager of the Tokyo plant. Noboru Yura, Manager of the Video Dept. (Video Center), was present. Activities of Far East Laboratories in the video field were discussed, and Roland Zavada provided a brief summary of the status of digital video and the SMPTE Engineering Committee activities in this area. Technical matters were discussed (Fig. 10).

With Mutsuo Maeda, Director of Market Development, Kodak Japan K.K., the delegation was given a tour of Kinuta Toho Production Studio. We had the opportunity to see photography of a miniature set and a television commercial. The studio appeared to be very active, and equipment was comparable to that in studios in the United States.

Tokyo Broadcasting Systems

The following day we attended a luncheon meeting at the Tokyo Broadcasting Systems at which Kinya Takagaki, Managing Director, was our host. Mr. Takagaki and the members of his staff are very much aware of the activities going on internationally in the progressive developments of television (Figs. 11, 12). They participate directly in the work of the Society's Digital Television Working Group. They expressed concern for possible risks involved in a too hasty development of a world digital specification and suggested that a more prudent approach through an evolutionary development of technological progress and user need would be more effective for the industry in the long run.

During the meeting President Smith explained the reasons for this trip and Roland Zavada described the scope of the Society's engineering activities.

NHK Technical Research Labs/NHK Broadcasting Science Research Labs

One of the most interesting events of

the trip was a visit to Japan Broadcasting Corporation (NHK) where we saw a few of the 54 research projects then in process. Nippon Hoso Kyokai (NHK) (Japan Broadcasting Corp.), the sole public service broadcaster, began television broadcasting in 1953.

The Broadcast Law outlines as the fundamental tasks of NHK: to broadcast well balanced, high quality programs; to undertake construction of broadcasting stations to bring broadcasting to every corner of the country; to conduct research and investigation necessary for the progress and development of broadcasting; to foster correct understanding of Japan through the overseas broadcasting service; and also to provide international cooperation, such as program exchange and technical aid for overseas broadcasting organizations.

With its central headquarters housed in Tokyo's Broadcasting Center, NHK also operates several regional headquarters and 62 local stations. NHK now operates five networks and covers all parts of Japan by using about 310 transmitting stations for Radio 1 and Radio 2, 470 for VHF-FM, and 5400 for General and Educational TV. NHK's financial resources are comprised entirely of the subscription fees collected from some 28 million households.

The NHK Technical Research Laboratories were established in 1930, five years after the establishment of NHK itself. The Laboratories provided guidance to the early electronics industry of Japan through the development of broadcasting and receiving equipment designed to promote the popularization of broadcasting.

In order to match the rapid progress of technical innovation and development, the Laboratories were reorganized in 1965, and the Broadcasting Science Research Laboratories branched off from the Technical Research Laboratories; the new Laboratories undertake scientific research on vision and hearing and solid-state properties with a view to contributing to the development of new broadcasting systems and techniques, while keeping close contact with the Technical Research Laboratories.

Both laboratories undertake research



Fig. 9. Tsuneo Utsumi, Executive Managing Director of Far East Laboratories, Ltd.



Fig. 10. A technical meeting.



Fig. 11. At a lunch hosted by Kinya Takagaki, Managing Director of Tokyo Broadcasting Systems.



Fig. 12. A meeting with officials of Tokyo Broadcasting Systems. Across the table from the left are Yohsuki Itaya, Manager; Yutaka Itoh, Director of the Engineering Division; Kinya Takagaki, Managing Director; and Toshiyasu Nakamura, Vice-President of the Television Operations and Transmission Division.

into many subjects in connection with broadcasting techniques ranging from program production to reception in homes. These subjects are roughly classified into four groups: (1) improvement and advancement of present broadcasting techniques and equipment; (2) investigation and development of future broadcasting systems and techniques; (3) development of new techniques to support broadcasting activities; and (4) basic and scientific research in auditory and visual information processing and studies on solid-state properties.

The results of research activities are not only utilized by NHK itself but open to the public through the technical journals of NHK and various academic societies.

The SMPTE delegation was given a tour of the facilities and shown demonstrations of a teletext system intended to provide television viewers with additional information consisting of Japanese characters and/or simple graphics, by multiplexing with a conventional television signal. Data signals for this system are transmitted by inserting them into the vertical blanking interval of a video signal at the rate of one line per field. A pattern transmission method similar to that of facsimile was adopted for this system instead of the code transmission method utilized in European teletext, because of the complexity and large number of Japanese characters. This method, while slow in transmission

speed, is suitable for transmitting ideographs, various types of symbols, and drawings.

Discussions concerning the engineering activities of the Society were held with Kozo Hayashi, Director of the Broadcasting Science Research Laboratories, and Hideo Honma, Director, and Dr. Kotaro Wakui, Deputy-Director of the Technical Research Laboratories.

We also had an opportunity to view an experimental PCM-VTR having a tape consumption similar to that of the Type C 1-in helical VTR. This is an experimental recorder providing an opportunity to review and resolve the many problems which remain in digital recording. The machine has a tape velocity of 144-mm/s and a recording density of 1360 bits/mm operating with a quantized 8-bit sample at three times the frequency of the subcarrier. Members of NHK were very aware of the SMPTE and EBU activity in the development of the digital video specifications and indicated that in the near future they would be providing a representative to the appropriate SMPTE and EBU committees.

The most outstanding demonstration of our brief visit was that of the high definition television system developed by NHK. There was a provisional number of scanning lines established at 1125. We were shown a display on a 30-in color cathode rate tube receiver with an aspect ratio of

5:3 compared with the usual 4:3 of domestic television. Input to the display was through a specially developed laser scan 70-mm telecine with a contour corrector. Live pickup was achieved through a 1-in Saticon camera using three diode-gun Saticons for live pickup with 1125 scanning line capability. An interesting feature of the laser telecine was that when the 70-mm projector was developed for telecine purposes, the resolution and signal/noise ratio characteristics of the 3-vidicon camera to be combined with this projector were inadequate. The laser employs a new principle in which each frame of the motion picture film is directly scanned by the laser-beam-raster synchronized with the motion of the film transport by means of a 48-sided low-speed rotating polygonal mirror. In viewing the display, both by direct viewing of the 30-in CRT or by projection viewing using the GE light-valve projector, the most distinct characteristic of the improved resolution was that the viewer was able to "get more into the scene" by comfortably viewing the displayed image at close as two times the screen height. This compares with the resolution of our 525-line NTSC system which was developed as adequate when viewed at 5 to 6 times the screen height. Our visit ended with the description of the potential transmission of high definition television using the 12-22-GHz band satellite.

KOREA

Our first visit in Korea was to the Ministry of Culture and Information where we were formally greeted by Jeong-Heum Eom, Director of Korea Film Production. Gifts were exchanged, a medallion with the SMPTE logo presented to Mr. Eom by President Smith as a token of the visit of the delegation to Korea and a beautiful cut crystal trophy was presented by Mr. Eom to President Smith for the Society (Figs. 13, 14). Following these pleasant formalities the delegation toured the laboratory and then were taken to the theater where they were shown samples of the film productions of the Ministry of Culture and Information.

The visit to Korea included two broadcasting facilities and two motion picture facilities. In visits to Korea Film Productions and to the Motion Picture Promotion Corporation of the Republic of Korea, we were impressed with the vertical integration of the complete production facilities, the quality of the laboratory equipment, the cleanliness of the laboratory facilities, and the enthusiasm and confidence of the personnel. Of all places it would be easy to say that Korea is prepared to move rapidly forward in the field of film production. We were given an opportunity to view an informational film to evaluate the quality of production indigenous to the Korean film unit and some counsel was given in laboratory film handling procedures. We noticed some room for improvement in the application of sound for the Korean film as compared to the American production. Many questions were received on the subject of sound and no doubt additional attention will soon be directed to that area as Korea investigates the possibility of full range and stereo sound systems in its theater installations.

We noted a very modern approach to chemical handling and effluent control and the cleanliness and engineering efficiency of the chemical mix room were greatly admired by members of the delegation. There is no doubt that Korea has the potential of becoming a very significant center for expanded motion picture production.

Korean Broadcasting System

Although Seoul television has three channels including an American Forces channel, the visit was limited to the Korean Broadcasting System (Figs. 15-19).

In March 1973 the Korean Broadcasting System Law provided for the official establishment of the Korean Broadcasting System which became the nation's first public broadcasting corporation. As a public corporation KBS attained complete autonomy in programming and broadcasting policy. The date of 1 July 1978 marks another milestone in KBS's history when the eight local stations, situated in each of Korea's provincial capitals, commenced telecasting regional programs. On 1 December 1976 KBS relocated to the newly constructed



Fig. 13. Cut crystal bowl, gift to the Society presented by Jeong-Heum Eom, Director of Korea Film Production, Ministry of Culture and Information.

Broadcasting Center on Yoido, an islet in the Han River. This item was of special nostalgic interest to President Smith since the Broadcasting Center had been constructed on the site of what in 1950-1953 had been an Air Base known as K-15, which he had used on many occasions.

The Korean Broadcasting System is housed in a very large building of imposing structure. Both radio and television facilities are headquartered in the Seoul facility. The radio studios produce domestic and overseas broadcasts. A fully automated radio master control room feeds about seven different radio systems. Individual studios are equipped for dramatic productions, interviews, or single announcers. Most of the radio equipment appears to be of European or Japanese manufacture.

In the visits to the television facilities of the Korean Broadcasting System and the Tong Yang Broadcasting Company we found facilities serving a viewing audience that has increased five-fold in the past five years to where 80% of all homes in Korea have television. Ninety-five percent of the territory is covered by microwave with a



Fig. 14. President Smith admiring the cut crystal bowl, a gift to the Society.

combination of local stations and microwave links to accommodate the rugged terrain of Korea. Korea Broadcasting is a rapidly expanding service having achieved its early goal of providing television viewing capability through new transmission and relay facilities. Korean Broadcasting was aware of the many developments taking place which are changing television technology and providing possibilities of improved hardware compatibility. Although they have extensive production facilities for receiver hardware, they have been limited in the development of broadcast facilities and equipment: Zavada explained the SMPTE's engineering program to the Koreans, emphasizing that there is always a significant need for user input to help direct the technical and scientific activities of an engineering effort and that this input should always be welcomed and encouraged.

As in other Asian countries, a large volume of programming for local consumption is produced. Classic and modern Korean drama appear to be very popular. Variety programs, children's programs, and educational programs are also produced. A news operation utilizing both ENG and film is also supported.

The equipment used by KBS has been selected from U.S., European, and Japanese manufacturers. Cameras tend to be European, VTRs from the U.S. and the rest of the technical equipment is a mixture from all sources.

Korean television engineering does have one special problem. Almost all origination and production is in color, but the



Figs. 15-18. Song Jae-Geuk, Director, Engineering Department, Korean Broadcasting System, showing KBS facilities.

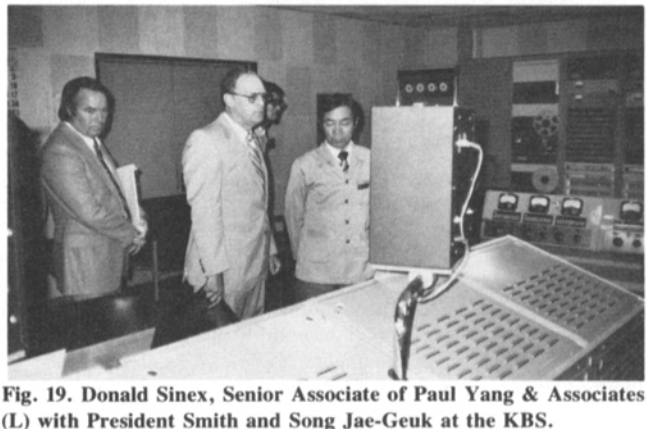


Fig. 19. Donald Sinex, Senior Associate of Paul Yang & Associates (L) with President Smith and Song Jae-Geuk at the KBS.

end product is broadcast in monochrome. This is the result of an attempt to discourage people from spending money to purchase color television receivers when the government feels that the money would be better spent for the necessities of life. It should be noted that the American Forces Television System does broadcast in color. Color television receivers are provided in many hotel rooms. KBS programs are distributed all over the world in their original color format. A large library of color programs is "on the shelf" awaiting rebroadcast. The engineers of KBS are waiting for the authority to "turn on the color." (Note added in proof: on 7 August the ban on the sale of color TV sets in Korea was lifted.)

VTR equipment consists largely of late-model U.S. quadruplex VTRs including broadcast cartridge recorders. U-matic and other formats are also in evidence. There does not appear to be any interest in time code editing. One-inch Type C is on the horizon and will be the next major step.

Telecine equipment comes from a variety of sources and includes a number of Japanese Telop cameras. Mobile OB vans are used for remotes, but these were not available for inspection. A most imposing property room housed thousands and thousands of stage properties and was as interesting as a museum. KBS has the facilities to receive overseas broadcasts by satellite and to feed a network of stations throughout the Republic of Korea.

Meetings Arranged

The Doosan Industrial Co., Ltd., arranged a meeting for the delegation for the purpose of meeting with some of the leading members of the Korean motion picture and television community and to give the members of the delegation an opportunity to discuss the Society's international goals and to exchange information with the other guests.

The Doosan Company, one of the leading firms in Korea, is the distributor of Eastman Kodak motion picture film and maintains one of the largest photofinishing laboratories in Southeast Asia.

Upon arrival the delegation was taken on a tour of the photofinishing laboratory by S. W. Lee, followed by a meeting with Tac-Ho Lee, Executive Manager, and his staff regarding motion picture activities in Korea.

We then joined the 40 or more guests where President Smith gave a brief outline of the direction of the Society toward international involvement in motion picture and television activities throughout the world and Roland Zavada described the operations of the Society's engineering structure.

Considerable interest was expressed by the guests in possible future developments in digital television and in high definition television now being developed in Europe, the United States, and Japan. They also expressed interest in the development of maximum compatibility among systems.

Leaving Korea

The last meeting in Korea was at the headquarters of the Motion Picture Promotion Corporation of Korea. President Smith gave a slide presentation showing various activities of the Society. Another slide presentation was given by Dr. Ryan showing the new construction activity in the motion picture and television industries in Hollywood. Roland Zavada described the standards activities of the Society and all three answered a number of probing questions from the audience.

The members of the delegation were all greatly impressed by the progress made by Korea in motion pictures and television and the level of expertise of their engineers.

TAIWAN

Hospitality

The hospitality offered us in Taiwan was the highlight of our trip to the Far East. When we arrived at the airport we were met by a large group of motion picture and television technicians holding banners proclaiming in Chinese and English their welcome to the SMPTE delegation. Throughout our visit we were impressed by the constant evidences of their high regard for the Society. A considerable amount of our time in Taiwan was spent on visits which gave us an opportunity to observe the beauty and the industry of Taiwan. Carl

Liu, President of Taiwan Television Enterprise Ltd. and the Television Academy of Arts and Sciences, the arranger of our visit and our host, provided a memorable experience for all of us (Fig. 20).

Entertainment Productions

During a visit with Ming Chi, Chairman of the Chinese Drama Association and President of the Central Motion Picture Corporation (Fig. 21), we viewed several filmclips from Chinese entertainment productions. Within a short span of 15 minutes we saw more bodies flying through the air in the practice of the Chinese art of Kung Fu than anyone would believe possible. We came to the conclusion that the Taiwanese had become highly proficient in special effects.

After visiting the studio we were given a tour of the National Palace Museum and then we spent a little time in the Chiang Kai-shek Memorial Hall which gave us an opportunity to see some magnificent art and architecture.

Background Information

Some background information on Taiwan Television Enterprise and the Central Motion Picture Corporation may help the reader to acquire a better picture of the present situation in Taiwan in respect to motion picture and television technology.

Taiwan Television Enterprise established the first television station in Taiwan on 28 April 1962. On 10 October that same year, Taiwan Television (TTV) started broadcasting. The company is comprised of seven departments: Administration, News, Program, Engineering, Business, Financial, and Security. At present, TTV has a staff of 433 persons.

When TTV first started telecasting, the Engineering Department spent five and a half months constructing the TTV Main Building and the Chu-tzu-shan Transmitting Station. By 10 October 1965 the West Coast microwave network was completed and TTV's signal was extended to Central and Southern Taiwan. When the East Coast relay system was completed in the spring of 1975, TTV's signal could reach every corner of the island.

In 1977 a large studio was built in suburban Taipei. This 7100-ft² (660-m²) studio with its modern equipment is capable of handling the recording and production of various types of programs. Meanwhile, TTV started constructing a 13-story East Wing Building which includes three studios. At present, TTV is on the air approximately 58 hours each week.

Central Motion Picture Corporation

The Central Motion Picture Corporation (CMPC) has been in existence for 26 years. Its predecessor, the Rural Education Film Corporation, was in existence for six years. The Taiwan Film Corporation and the Rural Education Film Corporation were combined to establish the Central Motion Picture Corporation on 1 September 1954 and at that time all functions of the former corporations were handed over to CMPC.

The studio of CMPC was originally located at Taichung. A new studio was constructed in Taipei in 1960 and later moved to its present location at Shih Lin, a suburb of Taipei. Covering an area of 540,000 ft² (50,200 m²) with five modernized studio vaults (two of them with air conditioning), two dubbing labs and a film processing lab, both with air conditioning, five sets of modern 35-mm cameras and a 150-kW lighting equipment, the studio is able to shoot four films simultaneously and has an annual output of 20 wide screen color films. The color film processing lab of the studio serves various film companies in Taiwan.

The CMPC took over the former International Film Laboratory, Ltd., at An Kang, Hsin Tien, Taipei in 1977 and renamed it the CMPC Film Laboratory. The CMPC Laboratory has good facilities, a number of improvements having been made, and considerable progress has been achieved in serving the film industry.

Other brief visits included a meeting at the Kodak (Far East) Ltd., Taipei Branch, and the Government Information Office. At Kodak (Far East) Dr. Ryan gave a brief summary of the distribution and marketing of Eastman Kodak motion picture film in the Hollywood area and Zavada discussed new technology and film standardization.



Fig. 20. Carl Liu, President of Taiwan Television Enterprise, Ltd. (TTV), with President Smith.



Fig. 21. Ming Chi, President, Central Motion Picture Corp., greeting President Smith.

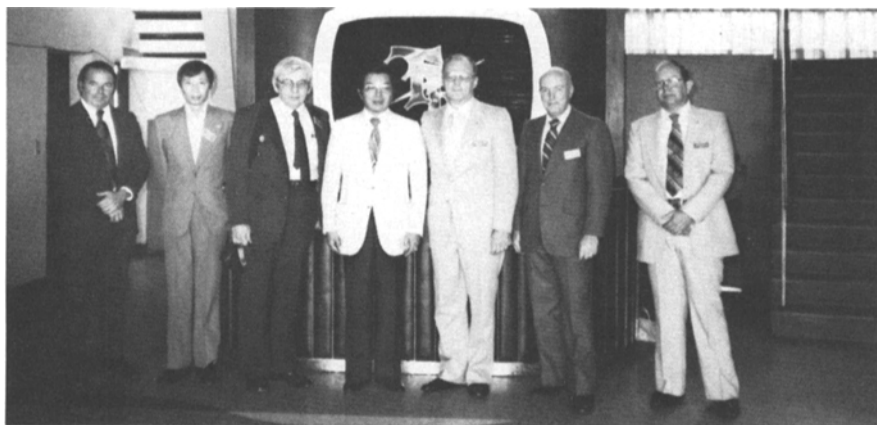


Fig. 22. Delegates visiting Carl Liu, President of Taiwan Television Enterprise.



Fig. 23. Mei Chang-Ling, President, China Television Co., with Lincoln Endelman and Roland Zavada.



Fig. 27. Carl Liu, President of the Television Academy of Arts and Sciences, with President Smith, Dr. Ryan, and Sha Yung-Fong, Chairman, Motion Picture Association.



Fig. 28. Same as in Fig. 27 except for the designed smiles at some apt witticism.

General Comments – Television

All broadcast studios have large production facilities which produce a high volume of videotape or live programming. About 75% of programs broadcast are locally produced. Details of programming are given in their *Television Yearbook*. The amount of locally produced programming is much higher than it is in the U.S. Most of the programs are produced in the Mandarin language, with some programming produced in dialects or foreign languages. The language problem requires that the engineering departments find unusual solutions to make the programs understandable to all.

Each station has state-of-the-art equipment mixed with some older equipment. European, Japanese, and U.S. manufacturers have supplied most of the technical facilities. The engineers seem to have selected the best equipment that they feel each manufacturer can supply. Some switching equipment and intercom systems were constructed by the stations themselves. No broadcast equipment is presently being manufactured.

New techniques, including electronic



Fig. 26. Sha Yung-Fong (center) at a meeting with the Motion Picture Association.

newsgathering (ENG) and electronic field production (EFP) were in use at each station and plans were being made for increased EFP for some drama series.

Most telecasting is produced in color, with some educational programs produced in monochrome because "color isn't necessary."

Subtitles

Since the television viewing audience speaks many different dialects, it is often

necessary to subtitle programs using written or printed Chinese characters. Subtitles are normally produced by typing (with a Chinese typewriter) on individual sheets or a roll of paper. Some titles are hand printed on Telop cards. The Animatic system requires that individual sheets or cards be photographed using a 16-mm animation (single-frame) camera on high-contrast film. This is a tedious but rapid process which does not permit errors. The completed film is processed and projected on an



Fig. 27. A different view of the same meeting with President Smith and Sha Yung-Fong.



Fig. 28. Wu Pao-Hua, President of the Television Service (CTS).



Fig. 29. Same luncheon meeting as shown in Figs. 24 and 25. Ling Shang-Shaung, Vice-President of China Television Co., has joined the group.



Fig. 30. (L to R) Ming Chi, Carl Liu, Smith, Wu Pao-Hua, Mei Chang-Ling, Paul Yang, Endelman, and Ling Shang Shaung.



Fig. 31. Ling Shang-Shaung, Vice-President of China Television Co. (CTV).



Fig. 32. Bob Smith and Roland Zavada being interviewed by Ms. Yiting Shen of Taiwan Television Enterprise Ltd.

Animatic single-frame stepping projector and matted electronically into the program as it is broadcast. The EDS system uses a paper roll and a live camera. An index hole in the paper at each title position places the title in the desired location to be picked up by a live camera. When a small number of titles are required, Telop cards are hand-lettered. Each of these techniques is used with some variations. Normally, subtitles are matted in as the program is broadcast live. Some subtitles are added to the videotape before it is broadcast.

There are a number of technical problems with subtitles. To be readable, they must be in a "safe area" of the screen, must not be "clipped" due to excessive video or misadjusted devices, and should be edged or bordered. Ghosts and other transmission problems can also affect the readability of the subtitles. If only one borderline generator is available, a second title on screen at the same time may not be edged. This might be corrected by using a different signal-routing method. Clearly, some better method for Chinese subtitles must be found. Conventional character generators cannot store enough characters (5,000 to 7,000) to make them practical. The Japanese television industry is working on the problem.

Transmission

Taiwan is served by a number of different television transmitting sites. All transmission is accomplished by using the high-band VHF channels 7 to 12. The various transmitting sites are interconnected using microwave relay. Terrain factors and a desire to serve offshore islands present some transmission problems if only the existing channels are to be used. The engineers have discussed the possibility of adding UHF transmitters to serve areas not presently served or now poorly served by existing equipment. Available television receivers are not capable of receiving UHF.

If UHF transmission must be used to reach these areas, a number of factors must be considered. If the people in these areas do not presently own receivers, UHF-capable receivers must be made available. In the U.S., a Federal Communications Commission mandate requires that all television receivers manufactured or imported be capable of UHF reception. This is one approach. Effective UHF converters should be inexpensive, yet easy to operate and easy to attach to the existing receiver. Pushbutton station selection would be desirable. UHF reception requires the use of a separate UHF antenna or a combination antenna where both services may be received.

Time Code Editing Systems

Despite the heavy volume of videotape programs produced in Taiwan there is an absence of controlled editing systems. Obviously, there is knowledge of such systems, but some reluctance to introduce time code editing. Perhaps there is a feeling that productions would take longer to accomplish if there were the ability to go back and perform large amounts of post production work, however, time code editing systems are being considered.

Switching Systems

It appears that relay switching is still widely used for video and audio. As facilities are upgraded, consideration is being given to improving some of the older relay-type switching systems.

Film and Film Commercials

There are a number of interesting situation related to the use of theatrical film and film commercials used on television in Taiwan. Theatrical films are produced in CinemaScope and are incompatible with the television aspect ratio. Several techniques are available to pan and scan the image to make it fit on the television screen, but this



Fig. 33. Visit to Golden Harvest Studio. Raymond Chow is third from left. Paul Yang is at far right.



Fig. 34. Golden Harvest Studio.

is difficult with local films since they are subtitled in a manner similar to television. Since it is desired to save the subtitles, either the films are projected in a squeezed format or the full-width format is projected with a black border above and below the active picture. Perhaps some agreement could be reached with the motion picture producers to keep subtitles and as much of the action as possible in a television safe area.

Summary

The television engineers are aware of the latest technology available from various countries. They have many of the same problems and arrive at the same solutions as other engineers throughout the broadcasting community and they have strong opinions as to good and bad in equipment design. In our observations of both motion picture and television technicians in Taiwan, we found that in both industries they were technologically knowledgeable and that considerable progress could be expected during the coming years as well as closer ties with the SMPTE.

Our visit to Taiwan was, of course, the primary purpose of our trip because of the invitation from Carl Liu representing the Television Academy of Arts and Sciences. Without this invitation, the extended trip which covered four countries in addition to Taiwan would not have been feasible. The warm friendliness and consideration of our hosts in Taiwan will be long remembered

as well as our rewarding observations of their well advanced technology in motion picture and television engineering.

Our meetings with the officials of various organizations involved in motion picture and television technology were most illuminating as well as providing us with an experience of genuine friendliness and strong interest in the SMPTE (Figs. 22-32).

HONG KONG

In Hong Kong we visited Taco Proper, General Manager of Kodak (Far East Ltd.), who welcomed us to Hong Kong and discussed in detail the well planned agenda his staff had arranged for our visits to motion picture and television facilities.

Among our pleasant memories of Hong Kong are visits to the Golden Harvest Studio and the Shaw Brothers Studio, TV Broadcasts Ltd., Rediffusion Television Ltd., CineArt Laboratory Ltd., and Mandarin Color Printing and Developing Co. Ltd.

The production facilities in Hong Kong are geared to the international markets for films for both eastern and western audiences with their diverse cultures and attitudes. This is a challenge, requiring great versatility and flexibility in the choice of subject matter and production.

Hong Kong consists of an island covering only 32 square miles (83 km²) and the adjacent mainland covering only 390

square miles (1010 km²). With space at a premium, studio facilities are understandably a little cramped; however the permanent sets offered considerable flexibility.

At the Golden Harvest Group we had the pleasure of meeting Raymond Chow, President, and we discussed with him the possibility of entertainment programming to meet the programming needs of home video recorders and future videodisk systems (Figs. 33, 34). We recognized the differences in the aspect ratio of the formats of entertainment programming versus that anticipated for narrow gauge VTRs and videodisks.

We had the honor of meeting Sir Run Run Shaw of Shaw Brothers Studios (Figs. 35-39). The largest studio in Southeast Asia, this famous production facility has a world-wide reputation for quality production. Sir Run Run, a gracious host and an extraordinarily interesting personality, arranged a tour of his studio and the motion picture processing laboratory. Later Sir Run Run joined us and engaged in an informed discussion about the future of the industry, expressing concern — a concern common to everyone in the industry — about rising production costs. Our meeting with Sir Run Run was one of the highlights of our trip.

Other visits included the Mandarin Color Printing and Developing Co., Ltd. (Fig. 40), where we were given a tour of the laboratory by David H. Lam, Managing Director. All of the color processing



Fig. 35. Sir Run Run Shaw greeting President Smith.



Fig. 36. Robert Smith in Shaw Brothers Studio.



Fig. 37. Smith and Ryan at Shaw Brothers Studio with a film actress.



Fig. 38. With Choi Lai, Production Manager of Shaw Brothers (HK) Ltd.



Fig. 39. Sir Run Run Shaw discussing industry problems with Bob Smith and Paul Yang.



Fig. 40. Mandarin Color Printing Laboratory. Ms. Gloria Wong is explaining some technical detail.



Fig. 41. Robert Chan, Manager of TV Broadcasting Ltd., is at the right of President Smith in the photograph and Sir Run Run Shaw is at the left. Also present are Paul Yang, second from right and Pauline Chan of Kodak (HK) second from left.



Fig. 42. At Rediffusion Television, Paul Yang, Wong Sum, controller of the stations, and Robert Smith.



Figs. 43, 44. A reception and dinner.





Fig. 45. Enjoying Eastman Kodak (Far East) Ltd.'s hospitality are (from the left) T. C. Proper, Robert Chan, Sir Run Run Shaw, Robert Smith, Paul Yang, and Steve Wong, Manager of Rediffusion Television.



Fig. 46. Television activity centers on Broadcast Drive.

equipment in the laboratory was manufactured by Arnold & Richter. Current plans are underway to increase the color printing capacity. We visited also the Cine Art Laboratory Ltd. which has recently relocated in new quarters. Eugene Chao, Director and General Manager, told the delegation that the laboratory does a good deal of the processing of feature films for Hong Kong studios.

SMPTE Membership Meeting

Before the delegation's arrival in Hong Kong, a notice had been sent to SMPTE members in the Far East announcing a meeting in Hong Kong of SMPTE members. The meeting, held in Gammon House, was attended by some 40 members and prospective members. President Smith gave a presentation, illustrated by slides, on the SMPTE and its activities in international standardization and motion picture and television engineering. Engineering Vice-President Zavada gave a detailed presentation on the engineering activities of the Society. Vice-President for Motion Picture Affairs Ryan gave a slide-illustrated presentation on the status of the motion picture industry in Hollywood. Vice-President for Photonic Affairs Lincoln Endelman gave a presentation on Photonics, his area of special interest. He then showed a 16-mm film produced by National Aeronautics and Space Administration on instrumentation photography.

After the presentations an informal discussion took place regarding the desire of the SMPTE members in Hong Kong to form a local Section. Mr. Smith explained the requirements for the formation of a new Section as set forth in the SMPTE Bylaws.

Television

In a visit with Robert H. Chan, General Manager of TV Broadcasting Ltd. (Fig. 41) and Henry P. Wong, Manager of Engineering, we learned that, because of the nature of the socio-economic structure of Hong Kong, the television stations serving the colony did not have a "season" typical of

United States and European television. In addition, the stations broadcast simultaneous or parallel program content in both English and Chinese. Both stations had their own systems converter with Hong Kong, of course, being in the PAL system. Although they did have some B-format, 1-in VTR, the C-format was dominant. Their news operation consisted of the use of TK-76 cameras with U-matic VTRs for ENG operation coupled with the use of Ektachrome film. Telecine operations included the use of the RCA TK-27 or TK-28 cameras for pickup as well as the Rank Mk III continuous motion flying spot.

The visit the following day to Rediffusion Television (Fig. 42) with M. Chung King Fai, Deputy General Manager; Eleanor Morris, Assistant to the Managing Director; Lam Sai Cheong, Chief Engineer; and three others of their staff showed that they had an in-depth awareness of advances in technology and the potential impact these could have on programming. Their station showed progressiveness in programming with strong emphasis on international operations. Facilities were constantly being upgraded and modernized and most of their standardization efforts were influenced by the EBU and the CCIR. The laboratory facilities we visited showed traditional equipment; however, one problem that existed in Hong Kong was the fact that, because of limited run release print production, the original negative was often used in production without intermediates being generated. As a consequence, film handling procedures warranted more attention. Processing control is the heart of all laboratory operations and those in Hong Kong did not differ from other parts of the world where significant emphasis and professional attention is directed to the necessary machine control and sensitometric analysis of product in process. The high cost of space in Hong Kong was reflected in laboratory operations where maximum efficiency of space utilization precluded some of the more effective work flow product-process planning of the U.S. and other laboratories,

Eastman Kodak Reception

Eastman Kodak Company Ltd. of Hong Kong was host to our delegation at a reception and dinner for the key people of the motion picture and television industry in Asia (Figs. 43, 45). Prior to the reception, more than 30 Asian members of the SMPTE took part in a technical meeting which featured presentations by our delegation on the Society's organization, international relations, and the possibility of developing further international sections.

Television — General Comments

Each of the television facilities (Television Broadcasting (HK-TV) and Rediffusion (RTV)) supports an English language channel and a Chinese language channel. In each case, a common equipment pool of VTR, telecine and other equipment is shared by two sub-control switchers, one responsible for the English language programming and the other Chinese. The outputs from the sub-control switchers are monitored in master control rooms and routed to their respective transmitters. This dual operation presents some unique problems of scheduling facilities and equipment. Since the population of Hong Kong is over 90% Chinese, the Chinese language channels operate an extended program schedule from early morning to late evening, while the English language channels are usually programmed in the evening hours only. There is some crossover as in the case of an early-morning news program which alternates 10-minute segments between Chinese and English and is broadcast over the Chinese channel.

Large, well equipped production stages are used to produce a high volume of Chinese drama, both modern and classical, variety shows and other programming. Each station supports a modern news operation utilizing both film and ENG. The English language channel features programming from other English speaking countries, including the United States and Great Britain. Daily news feeds are received from all over the world on satellite earth terminals.



Fig. 47. William Hargreaves, General Manager, Filmlab Engineering, Dr. Roderick Ryan and Filmlab technician in the background.



Fig. 48. Robert Smith and Ray Beattie in a discussion before the next meeting.

Since Hong Kong television operates on the 625-line PAL standard, local standards conversion is necessary for program material arriving in other standards, principally NTSC.

Mobile units are used to cover on-site special events and some variety programs. Some of these remotes have elaborate sets and production values on the scale of the Academy Awards telecast in the United States.

Each facility contains a mixture of United States, European, and Japanese equipment. Studio cameras were mostly European types found in wide use elsewhere in the Orient. Telecine equipment is a mixture from different countries with a heavy emphasis on 35-mm telecine projectors. It might be interesting to note that CinemaScope type films are presented in their wide screen aspect ratio with a black border above and below the active picture. This allows the viewer to read the subtitles without picture distortion. Some Telop equipment is found in telecine rooms for the origination of graphic materials. In one case, an expensive U.S.-manufactured ENG camera was mounted in a rack to pick up the station logo from a graphic card.

VTR equipment is a mixture of several types of quad and 1-in machines, both Type C and a few Type A. Videotape cartridge machines are used at both stations to play out commercials and short program segments. Each station appears to be moving toward 1-in videotape, with one station favoring U.S. equipment and the other, Japanese. As in other countries in this area, there has been little in the way of sophisticated editing equipment. So far, there is almost no time code equipment in evidence. This may stem from a desire to keep productions from becoming too elaborate thus requiring extensive post production. The introduction of 1-in may bring with it some form of time code editing. Each videotape facility was also equipped with $\frac{3}{4}$ -in U-matic equipment and $\frac{1}{2}$ -in equipment.

News editing tended to be housed in the News area or an adjacent room. In one case, the newsroom is used as a background behind the newscaster in a glassed-

off studio next to the working newsroom.

Each station operated a film processing laboratory for newsfilm and film inserts produced for inclusion in dramatic productions.

Both facilities were in the process of remodeling. HK-TV was rebuilding the master control, videotape, and telecine area. A very large switching and distribution system of U.S. manufacture is being installed. RTV is remodeling their VTR area. HK-TV has constructed an unusual standards converter by using three monochrome ORTs which are optically picked up by a disassembled studio color camera.

The Chinese language channel must subtitle, in written Chinese characters, many of the broadcast programs because of dialect problems. Both the Animatic and EDS systems are employed to accomplish this end.

Hong Kong television is very active. Most of the studios are located on Broadcast Drive (Fig. 46).

AUSTRALIA

The delegation was met at the airport in Sydney by John Barry, Chairman of the SMPTE Australian Section (Fig. 47) and Phillip Budden, Board of Managers.

We visited Colorfilm Pty Ltd., a full service motion picture laboratory offering film and videotape services. Murray Forrest, General Manager, gave us a tour of the laboratory facilities and then accompanied us to Filmlab Engineering Pty Ltd., the subsidiary equipment manufacturer which produces motion picture processing machines and auxiliary laboratory equipment for Colorfilm and other laboratories.

We had an interesting talk with William Hargreaves, Filmlab Manager, (Fig. 48) and it was here that we were first impressed by the geographical separation of Australia from much of the technology and services in North America and Europe. Mr. Hargreaves told us how the company evolved from a need to have a local supply of processing equipment and how it has since grown to the point where it serves not only Australia but has expanded into the

Far East and the Phillipines. We were particularly impressed with the high degree of professional engineering and production coordination that went into the development of the Filmlab engineering processing equipment, and we were also impressed by the fact, confirmed by laboratory personnel, that Filmlab could provide the shortest setup time we had ever seen for processing equipment. Hargreaves explained that one of the reasons for this efficiency was the fact that he had developed his crew as a team and that the same people who built the machines were those who were sent as the installation team to the facility. Also impressive was the recent effort by Filmlab to incorporate microprocessing circuitry for machine control function and possible problem analysis.

At Colorfilm we were impressed by the efficient workflow procedures and the introduction of computer services to follow process orders. The laboratory's negative assembly and handling area was particularly impressive with its environmentally controlled and dirt-free area. We learned that Colorfilm was offering a service to Far East laboratories consisting of the training of personnel or of providing consultant on-site technical experts to assist in the expansion and development of laboratory operations.

In this facility as well as the other facilities we visited in Australia, we were told in detail of the emphasis that Australia places on film quality.

Atlab

Atlab is a division of a major television network located at the Amalgamated Television Complex, Epping NSW (Fig. 49). This facility operates Channel 7 and offers full production capability for programming and commercials in a large, well organized, modern facility. In addition to its production and processing capability, the complex houses Channel 7 in Sydney. The delegation was given a tour of the motion picture facilities by John F. Donovan (Technical Manager) and Raymond D. Beattie (Chief Executive) who also made arrangements for the delegation to tour the



Fig. 49. Australian Film Producer Henry Crawford and Kenneth Watts, Chairman, Australian Film Commission with Robert Smith.



Fig. 51. John Barry, Doug McKeon, James Pemble, and Phillip Budden at the Australian Film Commission.



Fig. 50. Dr. Roderick Ryan and Kenneth Watts at a reception held at the Australian Film Commission.

general Sydney area using the Channel 7 helicopter.

Television Corp. Ltd. — Channel 9

The delegation visited this facility and discussed the activity of the SMPTE with Bruce Robertson, Vice President of Engineering. According to Robertson, Channel 9 is as nearly as possible a fully automated television facility. He arranged for a member of his staff to show us the facilities and answer any questions we had regarding the station's use of film and videotape in their programming activity.

Australian Film Commission

The members of the delegation were the guests at a reception held at the Australian Film Commission where we had an opportunity to meet representatives of the motion picture industry in Australia and to greet SMPTE Fellows Phillip Budden, Murray Stevenson, and Arthur C. Smith. This informal get-together provided an opportunity to renew old friendships and to make new friendships within the Australian film community (Figs. 50-52).

SMPTE Section Board of Managers Meeting

The delegation was invited to attend a regular Board of Managers meeting prior to the Section meeting in Sydney. The meeting was held at the John Barry Cine Group Pty Ltd. offices. An item of discussion, in addition to the regular agenda of the Section, was the Section's participation in local miniconferences where exhibits, as well as technical sessions, were held. Mr. Smith emphasized to section managers that SMPTE participation in conferences which involved exhibits that could be construed as trade shows had to be examined very carefully so that SMPTE participation did not jeopardize the legal status of the Society in the United States.

After the board meeting, the delegation attended a section meeting at the Australian Film and Television School (Fig. 53). The Australian Film and Television School is a public body which was created by an Act of the Federal Parliament. Its role is to provide professional training for people who work in, or with, film, television, and radio. Its fulltime program offers a three-year diploma course with intensive practical training for some of the most important creative jobs in film and television production, and a shorter course for scriptwriters. These courses are based in Sydney but accept people from all over Australia. The three-year diploma course covers both film and television, and provides training for careers in directing, producing and production management, editing, cinematography, and sound recording. There are no specific age or educational requirements for the course, but some previous experience is almost essential, and evidence of creative ability must accompany each application. Training begins for each student in either the camera, sound, editing, or production workshop.

The AFTS library is in Sydney. It contains 10,000 books, copies of 200 different periodicals, newspaper and magazine cuttings, reports, catalogues and other material, as well as copies of all films and video

tapes made by all sections of the School. The library is open to the public. Anyone employed fulltime in the film or broadcasting industries may borrow books; others may borrow them by inter-library-loan from another library from which they have borrowing privileges.

The AFTS produces instructional films, videotapes, and publications on a wide variety of subjects related to film and broadcasting. Publications are inexpensive and may be bought directly from the AFTS in Sydney, or by mail order. Films and tapes may be bought or rented.

The AFTS is certainly one of the most outstanding and prestigious schools of its kind. Its influence on the future of film, television, and radio through its professional training of persons interested in following careers in these fields is immense. We were especially impressed by the library with its well planned loan arrangements.

The program presented at the Section meeting consisted of a brief introduction of the delegation by John Barry, Section Chairman, and a brief description of his area of specialization by each of the members of the delegation. The remainder of the program consisted of showing of student-produced films and an August 1978 videotape recording of an interview with Freddie Young conducted by Basil Appleby. (Mr. Young is a British director of photography and has won Academy Awards for *Dr. Zhivago*, *Lawrence of Arabia*, and *Ryan's Daughter*.)

Departure

On 13 June the delegation left Australia for their flight back to the United States. There was unanimous agreement among the group that this had been one of the most rewarding of the tours undertaken for the Society and that its potential for the future of the Society and the industry should not be underestimated. They expressed again their appreciation for the invitation from Carl Liu and the warm friendliness and hospitality shown through the entire trip.

Acknowledgments

In this note, Robert M. Smith expresses his and the Society's appreciation of the dedication of everyone in the planning and arrangements for this important trip.

"A trip of this nature took a lot of advance planning and the delegation would like to thank personally everyone involved, especially Carl Liu, President of the Television Academy Arts and Sciences, Taiwan. Thanks are also due the Eastman Kodak Co., and especially to its International Photographic Division, for the fine cooperation and planning in Japan, Korea, and Hong Kong. Without their cooperation and dedication, the trip would not have been as meaningful and eventful as it was, and this is much appreciated by our Society."

"During our visit to each of these countries, we were afforded the opportunity to meet with the leading individuals connected with the motion picture and television industries as well as with related government agencies and other professional societies. In every case we were received with warmth and sincere friendship and it was very obvious that our Society is well recognized and appreciated for its work connected with engineering stand-



Fig. 52. John Barry with Robert Smith in the John Barry Cine Group offices for the Australian Section Manager's meeting.

ards. In the remarks made by the members of our delegation, our theme was set that we were there to seek advice and information and to offer the opportunity for better cooperation and understanding between our Society and members of their industries, but not to compete or impose our viewpoints."

"As President of our Society, I would like to thank the members of our delegation for their patience and understanding in making all the necessary adjustments in their schedules and accepting local customs and procedures without question. It was in-

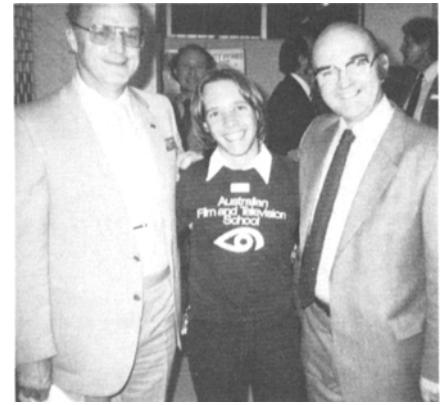


Fig. 53. Bob Smith and Storry Walton with Student at the Australian Film and Television School.

deed an honor to be a member of such a fine delegation chosen to represent the SMPTE. I would also like to thank each of the sponsoring firms who allowed their members to take part in this delegation. These firms should be recognized for allowing these individuals the time for this extended trip as well as for providing financial support which made possible this rewarding trip. Their cooperation and support is truly appreciated by our Society."