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ABOUT THE VISIT IN THE USSR OF A GROUP OF
AMERICAN CINESPECIALISTS

From the 20th of October to the 11th of November 1963, a group of distinguished American cinespecialists visited the USSR. They visited our country as a reciprocal visit in conformity with the agreement about cultural exchanges.

The group consisted of: Dr. Deane R. White, Engineering Vice-President of the American Society of Motion Picture and Television Engineers (SMPTE), and Director of Research Laboratories of the Du Pont Company, Ethan M. Stifle, Vice-President of the SMPTE, Manager of a Section of the Eastman Kodak Company on the east coast of the USA (New York); William E. Gephart, one of the Governors of the SMPTE and President of the firm, General Film Laboratories in Hollywood; Frank R. Capra, distinguished director and producer, who has an engineering training, has worked in the cine industry since 1921 and has photographed more than 35 films. He is one of the leading members of the Association of Motion Picture Directors in the USA.

During the stay in the Soviet Union the group visited:

in Moscow .

the "Mosfilm" motion picture studio
the All Union State Institute for Cinematography
the "Rossiya" cine theater
the laboratory for release printing of color films NIKFI
(the Scientific Research Cine Photographic Institute)
the Kremlin Palace of Congresses
the circular Kinopanorama theater in the Exhibition of
Progress of the National Economy

in Alma-Ata

the "Kazakhfilm" motion picture studio

in Kiev

the motion picture studio named after A. P. Dovzhenko
the site of the new studio for popular science films

in Odessa

the factory "Kinap" (Cine Apparatus Factory)

in Leningrad

the "Lenfilm" motion picture studio
the Central Construction Bureau
the motion picture printing plant
the TV station
and the hall for re-recording and dubbing of wide-format
and panoramic films in the motion picture news studio.

During the inspection of the "Mosfilm" motion picture studio, the delegates paid attention to the large scale of production, the contents and technical equipment of the stages.

Among the equipment which drew attention: the new camera, "Mir", with mirror shutter which is considerably lighter than the "Mitchell" (by more than 20 kg), the line of cameras for wide-format exposures, the series of camera lenses, light filters, combination photography by the "traveling matte" method (infrared screen and camera TKS) which guarantees complete absence of outlines, equipment for de-anamorphizing wide screen films with the possibility of panoraming, printers for printing 70mm wide-format films and their variants, universal sound editing table for assembling 35 and 70mm films, universal machine for application of magnetic stripes to 35 and 70mm film prints (very compact) universal machine for "electro-printing" stereophonic sound records, universal demagnetizing equipment and others.

The delegation became acquainted with the sound recording arrangements - sound studios, new wide-format room and sound equipment - (desk for music recording "Rapsodiya", nine-channel mixer desk for re-recording wide-format and panorama films, magnetic reverberator, portable magnetophone type "Sonata" for recording on narrow magnetic tape with positive synchronization).

In the other studios ("Lenfilm", "Kazakhfilm", and the studio named for A. P. Dovzhenko) the American cinespecialists paid attention likewise to

the overall contents
the highly technical matter of "presence"
the fundamentals of contemporary equipment
the enthusiasm and interest of the workers whom they had
occasion to encounter.

At the "Lenfilm" studio attention was drawn in particular, by a trick printing machine, which was assumed to be in regular production and also by an operating crane with remote control of camera exposure by television monitoring.

The American motion picture specialists spoke warmly of the "Kazakhfilm" studio, particularly about the arrangements for combination photography. They looked over the plans of the new studio and the plot for its construction.

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In the Moscow plant for mass printing of color films, the specialists noted the clearness of the technical process, including the order and cleanness. Attention was given to the control-measuring equipment, the small size restoration machine and the machine for slitting 32mm into two 16mm films, guaranteeing high precision of cutting. While there, the specialists expressed interest in the possibility of purchase of these machines. They noted the work directed toward the adoption of the method of additive (control of) color printing.

At the Leningrad printing plant the group interested itself in the department of hydrotypes (imposition) printing and the control measuring equipment.

During the visit to the All Union State Institute of Cinematography, the delegates became acquainted with the training of the creative staff for cinematography (writers, directors, operators, artists, and cine scientists). This school is unlike any in the USA and has auditorium facilities, reception rooms, library, reading rooms, stages, laboratories, sound and editing equipment and review rooms. The delegates became acquainted with several thesis works.

At the Odessa "Kinap" the specialists from the USA inspected products manufactured - universal sound editing table, projectors and auxiliary equipment. The delegation noted the scale of manufacture of the 16mm projector "Ukraina", through which, every 5 to 7 minutes one comes off the conveyor. Their attention was attracted by a stand for animation of films with remote, programmed control and also by the method of welding cine screens with ultra high frequencies.

Nearly a whole day was devoted to becoming acquainted with the work of the Central Construction Bureau in Leningrad and in observing the laboratories. The specialists from the USA visited the laboratories of acoustics, semiconductor techniques, sound recording, sound reproducing, optics and printing equipment. They inspected nonanamorphic taking and projection optics of recent models and, in particular, a camera lens $F = 16\text{mm } f/2.8$ and other objectives for the exposure of wide-format films, and models of contemporary microphones (including a radio-microphone) and printing equipment for printing wide-format films and their variants.

At the Leningrad TV station the American specialists became acquainted with its studio, assemblage of equipment, visual quality of the cine exposure screen of the kinescope, equipment of the section for production of TV films, and quality of TV broadcasting.

In Leningrad the delegates also noted the new sound equipment for re-recording and dubbing wide-format and panorama films. This equipment was located at the studio "Lenkinochronika".

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After acquaintance with the apparatus, the delegates watched for an hour the wide-format film "Krepostnaya Aktrisa" while they paid attention to the exceptionally low level of noise with the re-recording of the magnetic original, which makes sure of a practically complete freedom from noise at the pauses.

The delegates devoted a significant time to becoming acquainted with the work of the All Union Scientific Research Cine Photographic Institute (NIKFI). As is recognized, the USA does not have an equivalent scientific research institute dedicated to the working out of all cine technical and photographic problems, and this is costly to cinematography.

In the institute they saw the laboratories for light techniques, exposure techniques, printing equipment, acoustics, sound reproduction and photochemistry.

In the laboratory for light techniques, the delegation paid attention to

- the line of Xenon lamp for cine projection (0.5, 1, 2 and 3 kw)
- a 16mm stationary projector with Xenon lamp with very simple controls, calculated to show films without overloading
- reflectors with interference coatings
- a source of light for projection with a screen light flux of 60,000 lumens.

In the camera laboratory - 70mm cameras - for high speed and for "traveling mattes"; lenses and equipment for their study.

In the laboratory for printing techniques - apparatus for the production of various tests (in the course of the talk, it was suggested interchange of test films be made for more detailed knowledge of their exact characteristics).

In the acoustics laboratory the delegates paid attention to the models of rooms planned for multipurpose usage and as cine theaters. In the sound reproduction laboratory the US cine-specialists became acquainted with various amplifying equipment for cine theaters; both miniature types, assembled with transistors, and heavy duty stationary ones. During the visit to the section of loud speakers, the attention of the delegates was directed to the system of three unit sound reproducers and the quality of their sound.

During the visit to the photochemical laboratory an interesting discussion came up in the base laboratory, in particular, about the course of further development of new forms of base for cine films.

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The specialists of the USA paid attention to the outfitting of the photochemical laboratory with control measuring apparatus and instrumentation and also inquired about the possibility of purchase of individual items for laboratories in the USA.

In the large review room of NIKFI the American visitors heard nine-channel stereophonic recordings.

In the final remarks the cinespecialists called the existence of such a scientific research institute very fortunate and named NIKFI "the brain trust of Soviet cinematography".

In a meeting of the leaders of the scientific and engineering technical workers with the USA specialists, which was organized by the section of Science and Technology of the Union of Cinematographic Workers in the USSR, the leader of the delegation, Dr. White, spoke briefly about the activity of the American Society of Motion Picture and Television Engineers, and after this shared his impressions of the stay in the USSR.

At the conclusion, a friendly discussion occurred in the course of which the American specialists were asked a multiplicity of questions.

From the answers to the questions, the following are of interest.

In the USA, work is under way strenuously for the modernization of the Cinerama system of exposure and showing of panorama films from one film, that permits elimination of all the well-known defects which are connected with the use of triple exposure cameras and three projectors.

Early in 1964 it is expected to complete cameras for the exposure of cine panorama films with one objective.

Special optical copying equipment has been developed, making it possible to print frames of a film taken in the Ul'trapanavizhn (Ultrapanavision) system on 70mm film with an aspect ratio close to that of Cinerama; new projection equipment has also been developed by means of which it is possible to show this type of copy on the screen of a Cinerama cine theater.

The new Stanley Kramer film "This Mad, Mad, Mad, Mad World" was taken and shown by this method.

The newly developed single-film panoramic system for taking and showing cine films, which is known as "Dimension 150", has also been studied by the firm Todd-AO.

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In the USA, there remains practically no commercial cine theater which would project artistic (feature) cine films in the aspect ratio 1 to 1.38. Besides wide screen films, photographed with anamorphic optics, customary cine films are photographed 1:1.75. The old classical aspect ratio is used only for television presentation of motion pictures.

Of the aggregate number of cine films, photographed at the present time in the USA, approximately 35% are black-and-white and 65% color, while the per cent of color cine films is gradually increasing.

The number of copies of color films, printed in the USA by the imbibition method is about 30%, with multilayer color films about 70% of the aggregate number of copies. Use of the imbibition process is considered expedient for large numbers of copies. So, for example, for the printing of 300 copies the cost of imbibition copies is equal to that for multilayer prints, while for a smaller number of copies the use of the imbibition process is usually not economically expedient.

Here it is necessary to bear in mind the number of transfers, which may reach hundreds in the Technicolor system.

In answer to questions about critical observations arising during the visit to our plants, Dr. White commented that in the cine studios and printing plants there were no machines for the ultrasonic cleaning of film. These machines are extremely necessary for the assurance of high quality images on cine films.

Our guests called attention to the fact that in contrast to the USA there are more women in cine studios, cine industry plants, in the TV stations, in the Central Construction Bureau and in NIKFI among the engineers, technicians and students.

The USA specialists visited the "Rossiya" motion picture theater and acquainted themselves with the architectural design, planning, acoustics, equipment, quality of projection of picture and of sound reproduction. Nevertheless, they noted that reflections were caused by the low level of the stage on which the screen was placed; these hindered the perception of the images, particularly from seats in the balcony.

In the Kinopanorama at the Exhibition of Progress of the National Economy, the delegates saw the film "Path of Spring" in the multifilm form and became familiar in detail with the equipment. They noted that the Soviet circular Kinopanorama by its fine characteristics surpasses the American "Circirama".

The specialists from the USA saw the Kremlin Palace of Congresses and acquainted themselves in detail with its acoustics, equipment, and the possibility of the use of the large room of the palace as a room for many purposes. In the final talk with the

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State Committee on Cinematography, the American delegates stated that there was no equal to the Kremlin Palace of Congresses either in the USA or elsewhere in the world.

In a number of conversations, the American cinespecialists expressed their interest in the journal "Tekhnika Kino i Televideniya", in particular, Dr. White declared that they had missed a great deal in the past because of the insufficiently serious attitude towards the translation into English of papers published in the journal "Tekhnika Kino i Televideniya".

Before departure from the USSR, the American cine-specialists expressed thanks to the State Committee for Cinematography for the exemplary organization of their stay in the Soviet Union and for the full realization of the planned program of work.

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