### Efecto del arrollamiento en el buen resultado de la proyección de películas cinematográficas de 35mm

PAUL H. PREO y ERIC A. YAVITZ [522]

El buen resultado de la proyección depende en gran parte del diámetro en el que se haya arrollado la película en un carrete o centro antes de la proyección y el efecto se hace más evidente cuando la película ha sido arrollada con la emulsión hacia afuera. La calidad de la imagen en la pantalla difiere considerablemente entre los extremos del comienzo y del centro de una positive para teatro, pero si se conserva la película arrollada con la emulsión hacia adentro, se mejora substancialmente la estabilidad del foco, particularmente en las instalaciones más grandes y de mayor intensidad. Se han examinado estos efectos en una serie continua de estudios prácticos. Se sugieren extrapolaciones de los experimentos con películas de 35 mm para todos los formatos de proyección.

### Ein Mars Raumschiff-Photographie System

J. DENTON ALLEN [497]

Diese Arbeit behandelt die wissenschaftlichen und technischen Seiten eines Raumschiff Fernseh Systems, das für vorbereitende topographische Erforschung der Mars Oberfläche entworfen wurde. Das System besteht aus einem ein-Kamera, verschliessbaren System mit speziell entwickeltem, langsam abtastendem Vidikon. Der technische Mechanismus wird im Hinblick auf seine besondere Aufgabe und die zu erwartenden wissenschaftlichen Ergebnisse erklärt. Das Experiment und die technische Kalibration werden beschrieben, und typische Arbeitsleistungen werden illustriert.

### Linsenmessungsverfahren unter Anwendung von Photo-widerstanden

PAUL PARGAS [501]

Viele Eigenschaften einer Linse können ausgewertet werden durch die Anwendung eines Verfahrens, das auf die Änderungen der Lichtverteilung in der Bildebene gegründet ist, wenn das Bild eines hochkontrastigen Objektes durch die Brennebene bewegt wird. Die lichtempfindliche Schicht eines Photo-widerstandes messt diese Änderungen, ohne die übliche photographische Technik oder das menschliche Auge zu benutzen. Im Prinzip zeigt der Apparat den Schärfe-grad des Bildes an. Durch die genaue Feststellung der Bildebene kann Z.B. die Brennweite, Abweichungen von der Brennweite (Brennweite der einzelnen Zonen der Linse), im sichtbaren und in einem Teil des ultra-roten Wellenbereiches gemessen werden. Gewisse Aberrationen können auch gemessen werden. Das Gerät kann indirekt zum Auswerten des Äuflosungsvermögens einer Linse benutzt werden; dadurch können Linsen für ihre Qualität verglichen werden.

### Gegenwärtiger Stand der Silberwiedergewinnung in Filmlaboratorien

M. L. SCHREIBER [505]

Ein Überblick von Silberwiedergewinnungs-Methoden einschliesslich der chemischen Methoden von der Präzipitation, metallische Ersetzung, Ion Umwechsel und die elektrolytischen Methoden bei Verwendung von niedrigen oder hohen Stromdichten. Verschiedene Bewegungs-Methoden der Lösungen in elektrolytischen Zellen sind mit den existierenden Einheiten illustriert aufgeführt. Ein Begutachten des heutigen Silberwiedergewinnung-Systems in fünf kommerziellen Film Laboratorien weist darauf hin, dass die Silberwiedergewinnung von der Wirtschaftsverwaltung der Entwicklungs Laboratorien als wichtiges Element betrachtet werden soll. (*Üb. Christel Korherr*)

### Konstruktion motorisierter Fernseh-Aufnahmeausrüstung

I. S. ROSNER [514]

Fahrbare und leicht bewegliche Fernseh-Aufnahmeausrüstungen können in drei Hauptgruppen aufgeteilt werden: grosse, vollständig in sich selbst abgeschlossene Kontrollzentren mit vollen Produktionsmöglichkeiten; mittelgrosse Kameraausrüstungen für Direktaufnahmen mit Tonaufnahmemöglichkeit und Mikrowellensender oder kleinem Fernseh-Bandaufnahmegerät und äusserst bewegliche Einheiten mit nur einer Kamera mit Mikrophonübertragung oder kleinem Fernseh-Bandaufnahmegerät. Beim Bau dieser vorgenannten Ausrüstungen wurden herkömmliche elektronische Bauteile sowie Fahrzeuge bzw. Aufnahmewagen verwendet. Neue Konstruktionen werden vorgeschlagen, die neue elektronische Bauteilausführungen sowie verbesserte Fahrzeugeinrichtungen bieten.

### Laboratorium zur Herstellung von Film bei Tageslicht

STELLAN DAHLSTEDT [518]

Im Laboratorium der Film-Teknik AB in Solna, Schweden, wurden Maschinen entwickelt, die bei Tageslicht bewegliche Bilder aufnehmen und Filme herstellen können. Bei der Planung eines neuen Laboratoriums wurden gänzlich Tageslichtaufnahmen vorausgesetzt. Die Arbeitsbedingungen wurden bedeutend verbessert, die Leitung und Durchführung der Arbeiten wesentlich erleichtert und bessere Arbeitsergebnisse erzielt.

### Der Einfluss des Aufspulens auf die Qualität der Projektion von 35mm Kinofilm

PAUL. H. PREO und ERIC A. YAVITZ [522]

Der Durchmesser, zu welchem der Film auf einer Spule oder einem Kern vor der Projektion gewunden wurde, hat einen starken Einfluss auf die Qualität der Projektion. Dieser Effekt tritt sogar noch stärker hervor, wenn der Film mit der Emulsionsseite nach aussen aufgespult wurde. Die Qualität des Schirmbildes ist merklich verschieden zwischen dem Innen-und dem Aussenende einer Filmaufzeichnung, ist jedoch der Film mit der Emulsionsseite nach innen aufgespult, dann findet man eine merkliche Verbesserung der Fokusstabilität, hauptsächlich bei den grösseren Anlagen mit stärkerer Intensität. Diese Effekte wurden in einer fortlaufenden Reihe praktischer Studien überprüft. Es wurde vorgeschlagen, von den 35mm Experimenten auf alle Projektionsformate zu extrapolieren.

# Papers Committee National Chairman From Belgium

**Louis A. Meeussen**

*Ed. Note:* In accordance with plans made by Rodger J. Ross, Papers Committee Chairman for Papers From Abroad, information about the National Chairmen who contribute so much to the success of the Society and its Conferences is published from time to time in the *Journal*. Since National Chairmen cannot regularly attend Conferences, information about the Chairmen and their countries' industries is presented for the sake of acquaintance throughout the Society. Earlier reports appeared in the *Journal*, pp. 31–35, January 1964; pp. 814–818, September 1964; pp. 882–883, November 1963.

Louis A. Meeussen is manager of the commercial technical services for professional cinematography of the Belgian firm of Gevaert-Agfa N. V. (Mortsel).

Born in 1911, he was educated at the University of Louvain, where he was graduated in 1934 with degrees in civil mechanical engineering and civil electrotechnical engineering. After completing his studies, he spent a brief training period with the Belgian State Railways, and in 1936 he joined the scientific staff of the former Gevaert Photo-Producten N. V., which in July 1964, merged to form Gevaert-Agfa N. V.

Since the very beginning of his career, Mr. Meeussen has been concerned with the progress of the color film. As a young scientist, he studied problems relating to the processing and quality control of color motion-picture film (both substandard and professional material) and also he did research in color reversal processes. Meanwhile, he had the opportunity of maintaining regular contacts with clients, and this enabled him to bring his scientific work into line with market requirements. After World War II, Mr. Meeussen devoted much of his scientific work to the use of diffused solid components, upon which the Gevaert-Agfa color material is based.

A considerable number of patents in connection with color film were taken out by Gevaert Photo-Producten N. V. in the name of Mr. Meeussen, during this period.

In 1947, Gevaert brought color reversal film (studio and miniature, daylight and artificial light) on to the market. The first Gevacolor Positive motion-picture film, then designated

as 9.51, appeared at the end of that year; it was followed by the first Gevacolor Negative motion-picture film in 1948. The first film has been described: Louis A. Meeussen, "The Gevacolor Positive, Film Type 953," *Journal*, pp. 18–21, January 1964.

In 1950, the Commercial Department set up a unit called Commercial Technical Services to act as a liaison between the clientele and the research and production departments. In the same year, the Mortsel factories were reorganized and a division was made in the motion-picture sector between amateur and professional motion-picture products. Mr. Meeussen remained in contact with the professional motion-picture clientele, while his research work was mainly concerned with processing problems.

In 1954, a separate commercial technical department for professional motion-picture products (HTD IV) was established, with Mr. Meeussen as Manager. Since then he has been mainly concerned with commercial and technical service problems. He travels widely, by no means exclusively in the countries where cinematography is already highly developed, and is thus acquiring an overall view of the motion-picture market.

Another year which is worthy of mention is 1958, when a new Gevasonor film for professional magnetic recording was brought out. As this film is used mainly in cinematographic laboratories, it has been added to the HTD IV assortment. In 1962, Mr. Meeussen was elected chairman of the newly established Commission Supérieure Technique du Cinéma Belge (CSTB).

The motion-picture film assortment of the Belgian Gevaert-Agfa N. V. is a complete assortment. By way of camera films, it comprises color and black-and-white negative films (35mm and 16mm), black-and-white reversal films (16mm), a reversal film (16mm) for telerecording, as well as films for optical sound recording (35mm and 16mm), negative and positive duplicating films (35mm and 16mm) and color and black-and-white positive films (35mm and 16mm). Gevaert-Agfa N. V. also manufactures a Gevasonor film for magnetic recording (35mm, 17.5mm and 16mm) in four types.

An important innovation in the assortment is the Gevaprint TV film, type 5.64, specially designed for making television copies.

*Belgian production of sensitized motion-picture material* originates exclusively from the Mortsel factories of Agfa-Gevaert. According to Belgian export statistics, which come very close to the total production figures, it appears that regular progress is being recorded.

In the years 1953–1955, exports averaged 392 million BF (Belgian francs) annually. For 1955, the quantity was reported as 167,502 million linear meters. From 1956 onwards, the statistical data have been more detailed. For 35mm film, the export figures climbed between 1956 and 1963 from 138 million to 193 million meters, corresponding to amounts of 291 million BF and 444 million BF respectively. In seven years, there was thus an increase of close on 40%. In 1956, 47,412 million meters to the value of 70,441 million BF of substandard film (color and black-and-white) and in 1963 114,213 million meters (to the value of 208,227 million BF), were exported, i.e., an increase of about 140%.

It may be assumed that in the new European photographic group Gevaert-Agfa, fresh possibilities will exist both for research and production and for after-sale service, from which the motion-picture sector will also be bound to benefit.

*Film productions in Belgium* are only of regional significance. In 1962, 272 films were produced, i.e., 11 full-length films, 99 short films and 162 advertising films. Apart from these latter, which are made by some five firms, it is mainly a question of orders from the Belgian Radio and Television, which are executed by a few production companies. These are chiefly short films on popular science, art, sport, tourism and topical subjects (excluding newsreels, which are produced by the Belgian Radio and Television). The films, other than the documentary type, include 6 experimental and poetic films, 5 cartoon films and 16 feature films.

Belgium has a few film producers who have acquired an international reputation: De Keukeleire, Haesaerts, and Storck; among the younger generation, there are the names, inter alia, of André Cavens, Gerard Deboe, Emile Degelin, Patrick Ledoux, Paul Meyer, Roland Verhavert, all of whom already have some notable films to their credit.

A new move which has proved very fruitful is the biennial Belgian film festival, organized by the Antwerp Provincial Authorities. The Festival has acquired great prestige and has unquestionably raised the technical and artistic level of the Belgian film. Thanks to this festival, a few young and talented amateur film producers are able to become professionals.

The 1964 biennial Festival shows that the Belgian film has made great strides. The average quality of this festival, both technically and artistically, was excellent.

*The cinema industry* is going through a less favorable period, as is the case in many European countries. Of the 1,479 cinemas existing in 1961, 47 closed during 1962. The decline of the cinema is least marked in the large conurbations, while the rural (Flemish) sector of the population shows the highest percentage of loss in the number of spectators. The cities of Liège, Charleroi and Ghent have the lowest percentages of loss and the provinces of Limburg, East Flanders, West Flanders and Antwerp (excluding the conurbations) have the highest.

Television is undoubtedly exerting a strong influence here. Indeed, television makes the greatest progress in places where people must travel fairly long distances to the cinema, and makes the least progress where the cinema forms an integral part of the recreational pattern.

There are at present in Belgium 100 cinema seats per 1,316 inhabitants (this is the 1962 figure). Each person visited the cinema an average of 8.7 times in 1960, 7.8 times in 1961 and 6.9 times in 1962. These figures apply to ordinary cinemas where 35mm films are shown. In 1962, there were, however, still 95 cinemas projecting 16mm films. Here too there is a decline: 26 less than in 1961 and 40 less than in 1962. These 95 cinemas have a total of 19,374 seats and an audience of 429,537.

*Which films* are distributed in Belgium? From September 1961 to August 1962 (per number of *films*):

| *USA* | *French* | *German* | *French-Italian* | *British* | *Italian* | *Belgian* |
|---|---|---|---|---|---|---|
| 30% | 15% | 14% | 10.5% | 8.3% | 7.6% | 1% |

These percentages change considerably if we take as a basis the films shown (per number of *weeks*):

| *USA* | *French* | *German* | *French-Italian* | *British* | *Italian* | *Belgian* |
|---|---|---|---|---|---|---|
| 32.84% | 17.37% | 8.38% | 17.16% | 8.22% | 6.32% | 0.39% |

Obviously, the USA and France play a predominant role on the Belgian market.

*The Belgian film industry* is building up, on the broad basis of two television stations, the biennial Belgian film festival and a photographic industry, an interesting team of young film producers, who fulfil an important economic role by producing excellent motion-picture films that are esteemed throughout the world.