SMPTE ALMANAC

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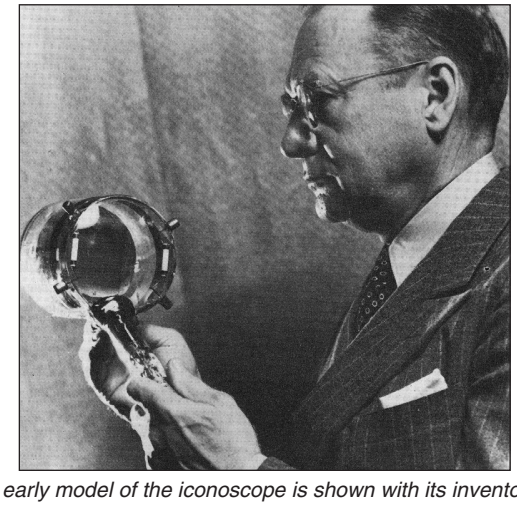
In this column we provide interesting historical briefs from the Journal articles of days past. The purpose of this column is primarily entertainment, but we hope it will also stimulate your thinking and reflection on the Society's history, how far we have come in the industry, and (sometimes) how some things never change. This is not meant to be an authoritative reference, and no attempt is made to correct any past errors or omissions of the Journal. We simply hope you enjoy the material.

25 Years Ago in the Journal

The August 1981 *Journal* published in "A Brief History of Television Camera Tubes" by K. Blair Benson: "The development of the iconoscope camera tube made television broadcasting possible. The orthicon tube overcame some shortcomings of the iconoscope; a further advancement led to the image orthicon, which could operate with a much lower light level. Next to be used in broadcasting was the vidicon, which used an antimony sulfide target. For many years the only choices for pickup tubes were the image orthicon (for studio and field applications) and the vidicon (for film transmission). The Plumbicon,* introduced in 1965, was the first vidicon-type tube to use a semiconductor target (lead oxide). This approach to tube construction led to a variety of pickup tubes and camera designs...In 1976, however, the Saticon*—another tube of the vidicon family—was developed by Hitachi working with NHK. Saticon was first introduced in the US in 1977 by RCA for use in both telecine and live cameras. The tube employs a semiconductor target of Selenium, Arsenic, and Tellurium. (Hence, the name *Sat*icon.)…Another tube which is gaining in popularity is the Newvicon,* developed by Matsushita in Japan. The Newvicon has virtually the same configuration as the vidicon and similar operating conditions."



An early model of the iconoscope is shown with its inventor, Dr. V. K. Zworykin. (Photograph courtesy of RCA.)

50 Years Ago in the Journal

The August 1956 *Journal* reported in "The Luminance of Subjective Black" by E. M. Lowry and J. G. Jarvis: "The subjective phase of tone reproduction requires a knowledge of how the eye reacts, that is, the visual response under a given set of conditions. Two instruments, which have proven useful for obtaining this knowledge are a visual sensitometer and an adaptometer. The particular response investigated and reported is the luminance of subjective black, which may be defined as that value of luminance which is just too low to produce a perceptible visual impression under the luminance distribution existing in the scene being viewed. A fairly simple empirical scheme is proposed for predicting the luminance of subjective black from two easily measured quantities: the luminance of the fixation point and the average scene luminance."

75 Years Ago in the Journal

The July 1931 *Journal* reported in "Color" by H. B. Franklin: "Color as shown in motion picture production was virtually thrown upon an unprepared public. The introduction of color in motion pictures has suffered to a great extent through the fact that motion picture producers and their technicians were not prepared to give it experienced handling…That there is a place for color in motion pictures is a foregone conclusion. In this age, when color has so much appeal, the motion picture cannot be expected to be immune. The appeal for color is fundamental. Our everyday life is constantly surrounded by color…Intelligent study and experimentation on color values is necessary if producers are to derive the greatest value from this medium. In the past, producers have been tempted to crowd scenes with blatant colors in an effort to emphasize a wide range of color. Some of the rooms shown in colored pictures would unnerve most people if used in actual life. It is to be expected that the producer would use the same good taste in motion picture scenes that he would use in an actual home. Lighting has been perfected to such an extent that it is unnecessary to handicap the use of color as it has been in the past, and with the new developments in photographic emulsions, a greater value may be placed on color as a medium. If the screen is to truly reflect life, it must eventually include color."

*Plumbicon is a registered trademark of N. V. Philips Gloeilampenfabrieken; Saticon is a registered trademark of NHK (Japan Broadcasting Corp.); Newvicon is a registered trademark of Matsushita Electronics Corp.