

SMPTE ALMANAC



By Michael Dolan

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 November 1980 *Journal* reported in "Teletext Systems: Considering the Prospective User" by Walter Ciciora: "The literature contains abundant technical descriptions of teletext circuits and systems. However, there is a paucity of analysis of the user's view of teletext systems. This is unfortunate since design tradeoffs should be guided by consumer considerations. Digital techniques have already made an impact on the consumer's life. Obviously, digital products such as watches, clocks, calculators, microwave oven controls, and direct access television tuners have made the consumer comfortable with numbers and simple numerical control. The consumer has heard about home computers and knows that there is an electronic "brain" under the hood of his new car... Teletext is a medium for transmitting text and simple graphics in a highly compact form for convenient display. The usual means of display is a color television receiver. Screensful of teletext information are called pages. The information available on teletext is organized into these pages. Access is achieved by entering page numbers into a calculator-like key pad. Page numbers are obtained from (a) a printed directory, (b) a teletext directory page (called a menu), (c) referral from other teletext pages, or (d) referral from other sources such as normal television announcements."

50 Years Ago in the Journal

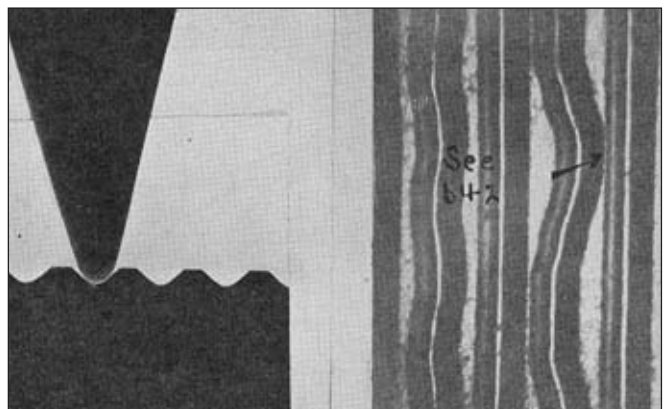
The November 1955 *Journal* reported in "A New Look at Colorimetry" by D. L. MacAdam: "At a meeting in Zurich, Switzerland, June 13-22, a group of the world's leading experts on colorimetry faced the unpleasant necessity of revisiting the CIE data on colorimetry. It may be recalled that the CIE color data played a prominent role in the development of the FCC standards for color television. From modest beginnings of about 1937, the use of the CIE color standards in color cinematography has increased steadily, and the future growth of their application in the control of quality of color motion pictures, as well as in color television, can be forecast with confidence. Consequently, we have reason to be concerned about proposals to revise the CIE data.... The first suggestion that the CIE data were not adequate to solve such problems came in 1948 when Jacobsen attempted to substitute the rutile variety of titanium dioxide in place of the more expensive anatase variety in a white refrigerator

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enamel....Shortly afterwards, we ran into trouble trying to select standard neutral greater areas in processed, Kodachrome and Ektachrome films for calibration of color densitometers. Of course, different people select different neutrals. The Eastman Kodak Co. turned to the CIE data to referee this disagreement, but everybody agreed that the CIE data indicated a sample that was too yellow."

75 Years Ago in the Journal

The October 1930 *Journal* reported in "Some Considerations Affecting the Design of Phonograph Needles" by R. T. Friebus: "However simple a piece of apparatus the phonograph needle appears to be, as a necessary link in the chain of reproducing equipment it must be a strong qualitatively as every other link, or the elementary principles of design are violated. One needs to calibrate only a few kinds of photograph needles to find that quality of sound which has been achieved at the cost of thousands of dollars can be considerably impaired by using an improperly designed needle costing only a fraction of a cent... The size and stiffness of wire from which the needle is made determine whether there will be any decrease in response due to bending at, or just below, the needle holder...A series of tests were made on needles of uniform size wire to determine the effect of varying the rate of taper only. These tests indicate the fact that for loud tone needles the change in response due to the taper is limited to the high end of the frequency scale... Another point of interest in the design of needles is the change of quality as the point wears... We note that the round needle point is able to enter and follow the waves, however short, in the beginning of a record...A study of needles must necessarily include the relation between needle design and scratch noise....That needles in packages be uniformly good is of considerable importance. Whereas a few bad needles in a package mean nothing to a person playing a phonograph at home, they are of considerable commercial importance to a motion picture exhibitor."



Photomicrograph of a recorded disk in profile with needle in groove.