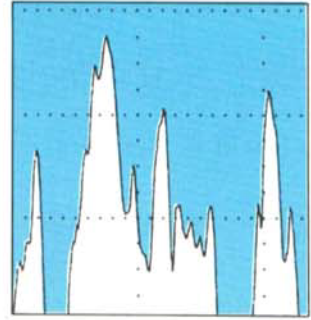


Highlights

- 100 Acoustical Design for the Technical Building at Skywalker Ranch • Part 1: Sound Isolation and Room Acoustics • D. R. Schwind •** The acoustical design criteria and high-performance constructions used for the Technical Building at Skywalker Ranch are discussed. Special constructions, such as floating floors and double-glazed windows, were used to achieve low background noise criteria. The scoring stage was designed to provide sound isolation from helicopters flying over at 500 ft. Interior acoustics had to meet stringent reverberation time criteria. A scale model was constructed to verify that flutter echoes would not occur between hard reflective arches in final mix, and a special sound-diffusing panel was also designed and tested in scale. Control of low-frequency reverberation and sound absorbers as well as quality-assurance procedures are also discussed.



- 106 Acoustical Design for the Technical Building at Skywalker Ranch • Part 2: Mechanical and Electrical Acoustic Noise Control • T. A. Schindler •** The mechanical and electrical noise-control design program for the Skywalker Ranch Technical Building is presented. In a building of this type, the mechanical/electrical system designs are complex. The acoustical, mechanical, and electrical engineers maintained a coordinated design program to ensure that the noise and vibration-control measures would be fully integral to the system design. The result is a mechanical, electrical, and architectural system that fully meets the owner's present post-production needs and can expand to meet the needs of the future.



- 113 Subjective Image Quality as a Function of Viewing Distance, Resolution, and Picture Size • H. D. M. Westerink and J. A. J. Roufs •** This article describes two experiments concerning the subjective quality of complex scenes. Slide projections were used as stimuli, and they were varied in viewing distance, resolution, and picture size. The subjective quality was judged by a group of 20 subjects by means of categorical scaling. The results of the experiments show that the angular resolution expressed in periods per degree and the picture angle spanned by the display each influence the quality independently.



- 120 Theater Television: A History • D. Gomery •** Television technology has not always been used in the home. Indeed during the late 1940s and early 1950s the major corporations of the U.S. motion-picture industry attempted to bring television entertainment into movie theaters. They did this to protect their positions in the mass entertainment marketplace. The necessary technology was developed just before and immediately after the Second World War. Attempted innovation occurred from 1947 and 1954. This article analyzes and explains the technological history of theater television through the stages of invention, innovation, and diffusion.

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- 123 Direct Introduction of Time Code on Film • M. Oudin •** A new method of electronic post-production with film as the shooting medium is introduced. This procedure uses a newly developed time code (compatible with SMPTE/EBU 80-bit image code) that is exposed onto the original film or negative during shooting and used during post-production as a fast, reliable method of matching the original negative at the final stage. This article describes the new time code and details the procedure from shooting to delivery of final film and video copies.

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- 128 Margin Testing of Digital Videotape Recorders • R. D. Petit •** The recently emerging use of digital recording techniques in the video field has bridged the gap between broadcast and instrumentation applications of magnetic storage. The differing demands of data and video storage require specific error correction and testing strategies. This article presents a historical perspective of testing in the instrumentation and computer storage fields. The increase in recording densities with the attendant need for margin testing is discussed. Margin testing is defined and the application of margin testing techniques for the DVTR is proposed.

