

*diazonium compound, electrophotographic and thermographic systems; black to white reversal, etch-bleach method; Autopositive and Autoreversal systems; tone-line process.*

## **VIII. Half-tone Reproduction . . . . . 179**

*The glass-ruled half-tone screen, grained screens and screens for special effects, screen rulings and angles; Gradar screens; half-tone screen theory—penumbral and diffraction, screen distance calculations; Waterhouse stops; flashings; moiré; vignetted contact screens, contrast control; elliptical (chain dot) contact screens; line and tone combination work; Autoscreen (pre-screened) film; contact screen standardised working—highlight density compensation; basic flash exposure, reproduction of poor copy; screen positive making from continuous tone negatives.*

## **IX. Colour Reproduction . . . . . 217**

*The synthesis of light—theory of light and colour; colour temperature, additive-subtractive synthesis; practical basis of additive and subtractive colour mixture, basic principles of colour separation for printing; Munsell and CIE systems; essentials of colour correction; filters and filter factors, screen angles and moiré pattern; ink colour sequence, proportionality failure and the additivity rule; masking for colour correction, single overlay masking—positive masking of reflection copy and negative masking of colour transparencies; double overlay masking; undercolour removal (UCR); integral (dye coupled) colour masking, Multimask, Tri-mask, Neomask & Verimask; direct screening; camera-back masking; duotones.*

## **X. Manual Retouching and Correction . . . . . 257**

*Equipment and materials—brushes, needles, scrapers, pencils, dye retouching; chemical correction—surface, proportional and super-proportional reducers; correction procedure for colour—negative correction and positive dot etching; intensification; subsidiary operations—image assembly, opaquing, squaring-up, use of grids; photographic contacts, spreads and chokes; pin register systems; stripping film procedure—wet and dry stripping; combination work by double printing; pre-press colour proofing systems.*

## **XI. Reproduction by Electronic Scanning . . . . . 281**

*Development and application of electronics in graphic reproduction, early equipment; introduction of the laser beam; the Vario-Klischograph; the Neugebauer formula; basic principles of electronic scanning; drum scanners—Linoscans, Diascan, Magnascan; scanners for monochrome; Chromagraph scanners; laser screening.*

## **XII. Quality (Consistency) Control in Reproduction . . . . . 301**

*Health and safety factors essential to ensure job satisfaction and quality output; storage and cleaning of screens; avoidance of registration problems; flare control; control of variables; sensitometric application; exposure control systems; UCR and the black printer negative; visual comparison to define colour; paper and ink for proofing purposes—influence of relative air humidity, characteristics of printing inks.*

## **Appendix I . . . . . 319**

## **Appendix II . . . . . 321**

## **Bibliography . . . . . 325**

## **Index . . . . . 327**