

# CONTENTS

<i>Preface</i> . . . . .	vii
<i>Acknowledgements</i> . . . . .	ix
<b>I. Basis of the Planographic and Photomechanical Processes</b> . . .	1
<i>History and development, methods of graphic reproduction, lithography and chromolithography; development of photomechanical methods and materials, characteristics of the various printing processes; map making and scribing; poster lithography.</i>	
<b>II. Studio Accommodation and Planning</b> . . . . .	19
<i>Essential features and factors, design and layout, lighting, heating and ventilating; studio and darkroom planning, processing sinks, standard viewing conditions and lighting, darkroom safelights; the retouching studio; water supplies and disposal of photographic waste.</i>	
<b>III. Originals for Reproduction</b> . . . . .	37
<i>General considerations; line copy, scraper board, quarter tone, tints and stipples, typewritten and other copy; half-tone copy, bromide prints—colour, gradation of tone and surface texture, contrast and gradation, pencil, carbon, halftone proof characteristics and moiré elimination; artist-prepared originals and air-brush retouching; copy size and proportional reproduction; colour transparencies; negative-positive colour film; conversion systems; copy preparation—dummies, layouts, tints and overlays.</i>	
<b>IV. Camera Room Equipment and Accessories</b> . . . . .	67
<i>Camera types—gallery and vertical cameras, the darkroom camera and accessories, basic photographic equipment, reversal systems, the lens and conjugate foci; choice of equipment, registration of images, camera enlargers; high productivity equipment for monochrome, colour and direct screening; automatic exposure control, light meters and integrators, sophisticated electronic aids; camera platemakers; roll film cameras; cameras for small offset; optical principles and systems, lens aberrations; prisms and mirrors for optical reversal; camera lighting systems, illumination considerations and factors.</i>	
<b>V. Photographic Principles</b> . . . . .	111
<i>Light sensitive emulsions and film bases, types and manufacture of photographic materials, speed, sensitivity and stability; development of the latent image, developer constituents and function; image fixation, fixing solutions; after treatment of the image, chemical reduction and intensification, choice of methods and procedure, rehalogenisation; lith emulsions and developers; control in development, dish, tank and automatic processing, recirculation and replenishment.</i>	
<b>VI. Continuous Tone Photography</b> . . . . .	137
<i>Units of illumination; transmission and density, sensitometric principles, reflection and transmission density, characteristic and time-gamma curves; standardised negative making, opacity and contrast, flare and brightness range, type and use of densitometers; photochemical reactions, reciprocity failure and associated effects including Herschel and solarisation; Newton rings.</i>	
<b>VII. Line Negative Reproduction</b> . . . . .	159
<i>V Ratio systems, constant aperture system, line negative procedure, influence of lamp angle and distance, inverse square law; emulsion—filter combination for various types of copy; standardisation of results. Cronalith blender and Multirange systems. MP Intermatch system; stabilisation and rapid access processing. chemical diffusion transfer, PMT Negative paper; photocopying—silver salt,</i>	