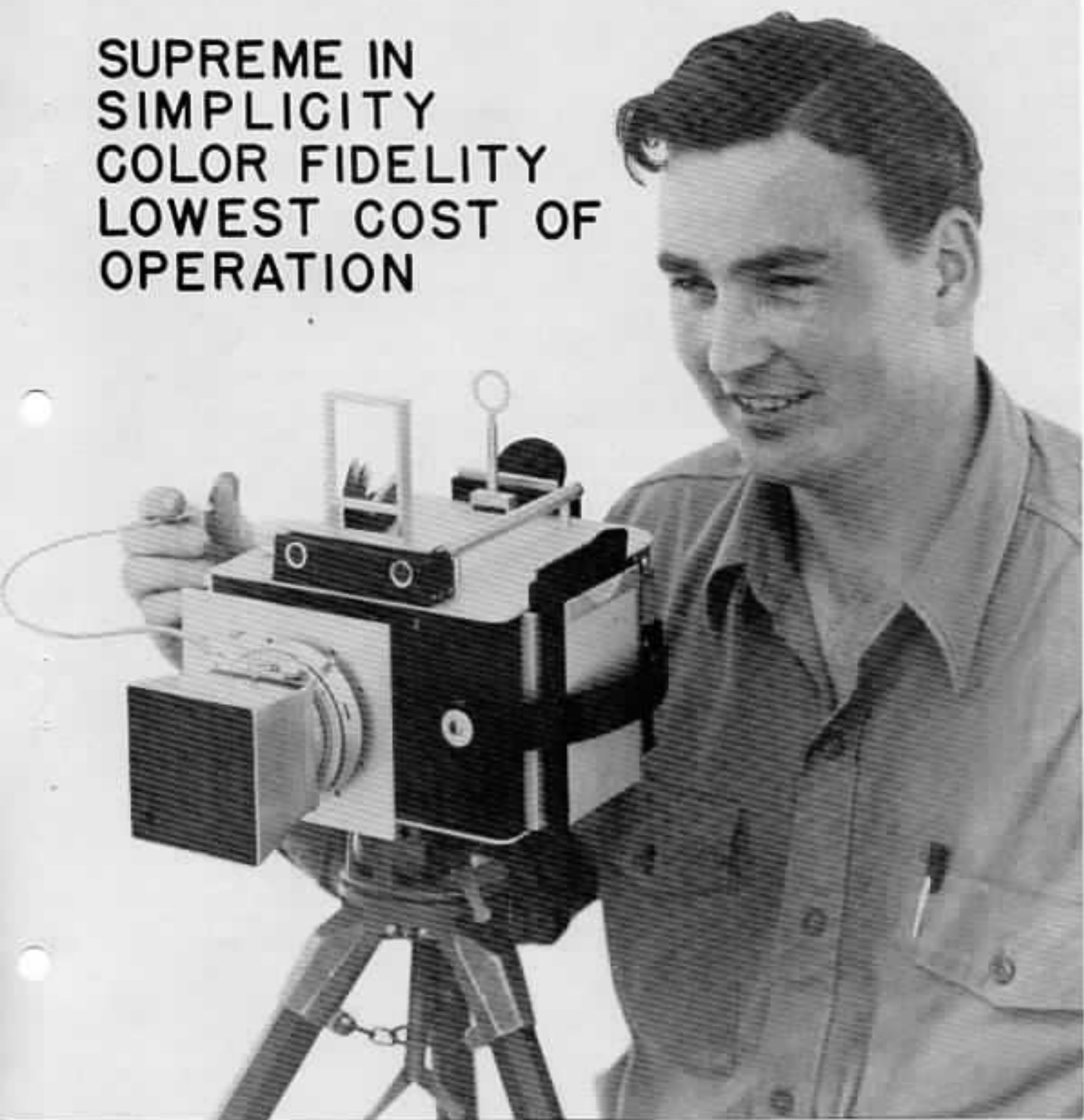


CURTIS ONE-SHOT COLOR CAMERAS

SUPREME IN
SIMPLICITY
COLOR FIDELITY
LOWEST COST OF
OPERATION



Simplicity-Dependability. Curtis One-Shot Color Cameras are loaded with regular black and white panchromatic film, either packs or sheet. Color separation negatives are thus made directly from the subject, each of three negatives recording one-third of the color scale and all three negatives being exposed simultaneously in perfect register.

The film stock for Curtis Color Cameras keeps well without change, is less sensitive to the bad effects of high temperature and prolonged storage in exposed form before processing than most color film.

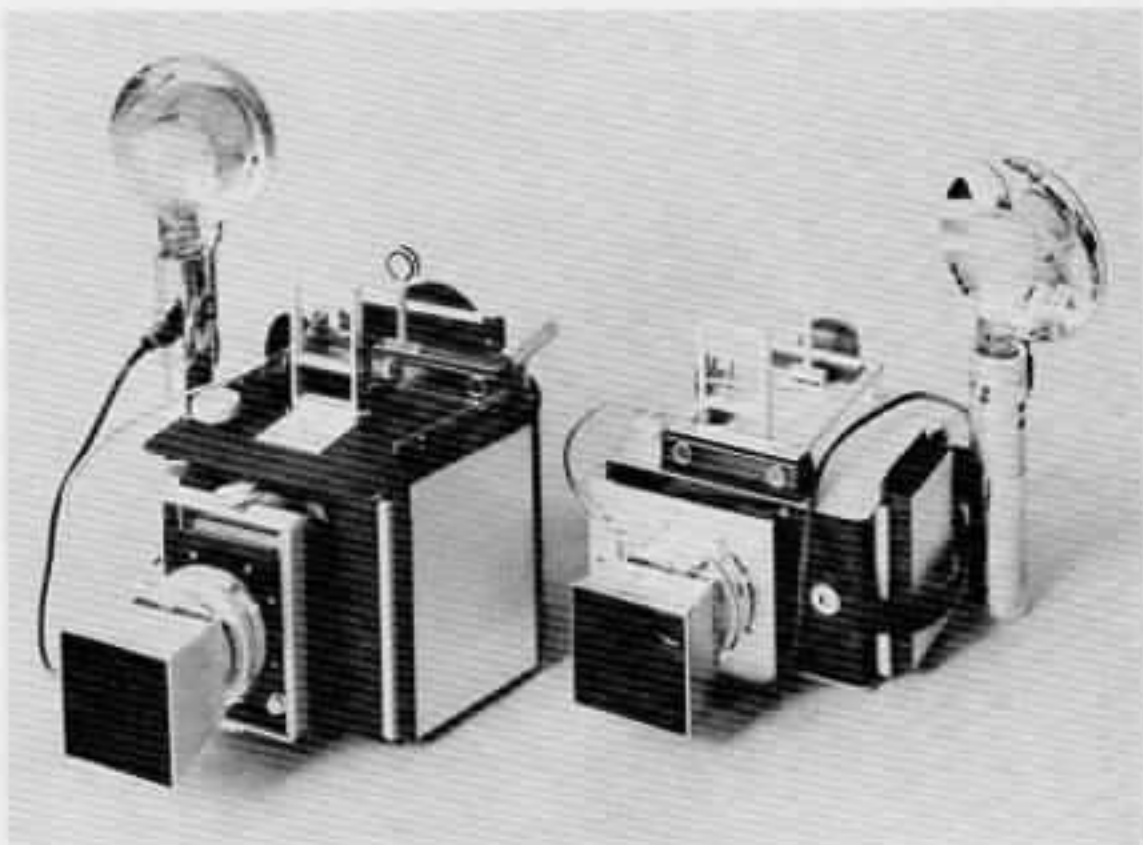
Curtis Color Camera negatives are developed in regular black and white developer, fixed and washed and then dried. This utter simplicity of processing with one developer only, requires about twenty minutes of darkroom time; but twelve minutes in total darkness.

Since the register, color balance, light distribution and all of the critical factors which govern negative quality are built into the Curtis Color Camera, the attainment of the highest photographic quality is assured by the worker who diligently follows sound photographic practice.

Speed. With popular panchromatic film packs and sheet film, Curtis Color Cameras permit exposures of 1/100 second at F/7 in direct sunlight, with proportionately lower speeds at smaller apertures. The importance of relatively high camera speed is recognized by every practiced worker. Curtis Cameras achieve this high speed through efficiency of design and not by sacrificing color separation.

Low Cost-Highest Color Fidelity. Lowest possible operating cost, with the highest color fidelity is attained by using low-priced standard black and white panchromatic films and regular black and white developers. The high color fidelity is a result of the virtually perfect color separation obtainable in negatives made through standard filters directly from the subject. Color prints by the Curtis Permatone Process are unexcelled in beauty, fidelity, color purity and permanence and may be made directly from Curtis Color Camera negatives in less than an hour. Only a developer, a hardening bleach and a fixer are required for processing. All solutions keep perfectly for weeks in stock bottles. The actual material cost for an 8 x 10 Permatone Print is under two dollars and from twenty to thirty duplicate prints may be made for a material cost of about twenty-five cents each.

How Curtis Cameras Operate. Curtis Cameras have undergone continuous field engineering for ten years. Every conceivable type of commercial, clinical, technical and general pictorial photography has been done with them in an effort to create the most perfect tool and instrument known to the art.



CURTIS COLOR-MASTER 4 x 5

CURTIS COLOR-SCOUT 2 $\frac{1}{4}$ x 3 $\frac{1}{8}$

Standard equipment as shown:

Rangefinder, custom-rebuilt and coupled to lens. Viewfinder, Curtis Precision Direct Vision type with parallax correction. Flash Gun and Reflector, Heiland Research. Lens Shade, Cooper Professional, custom-rebuilt to fit lens cell. Lens, Eastman Commercial Ektar or Ilex Paragon in Synchro Shutter. Film Pack Magazines and/or Sheet Film Holders, Curtis Precision-made with in-built standard color separation filters.

Sensitive materials used: Any type of panchromatic film having suitable sensitometric characteristics. Recommended film; Eastman Kodak Company's Super XX sheet film or pack.

Negative Developer: Any developer producing soft gradation, with good shadow detail and open highlights; relatively fine grain without serious loss of speed. Recommended developer: Curtis Negative Developer No. 67.

Illumination: Curtis Color Cameras may be used in any type of light which affords a continuous spectrum. Daylight from early morning to late afternoon; artificial light such as Tungsten 3200, Photoflood and Photoflash are excellent.

Fundamentally, Curtis Color Cameras operate exactly the same as high grade black and white cameras. The color separation filters are in the film holders. Thus one may focus and compose comfortably with white (unfiltered) light, using the regular ground glass back or a lens-coupled rangefinder as preferred.

In order to accommodate the radical change from artificial (tungsten, Photoflood or Photoflash lamps) to average daylight, one merely exchanges the relative positions of the film holders. The Curtis Color Camera is so designed as to provide a mathematically computed ratio of light in the three holder positions, each receiving a definite percentage of the whole.

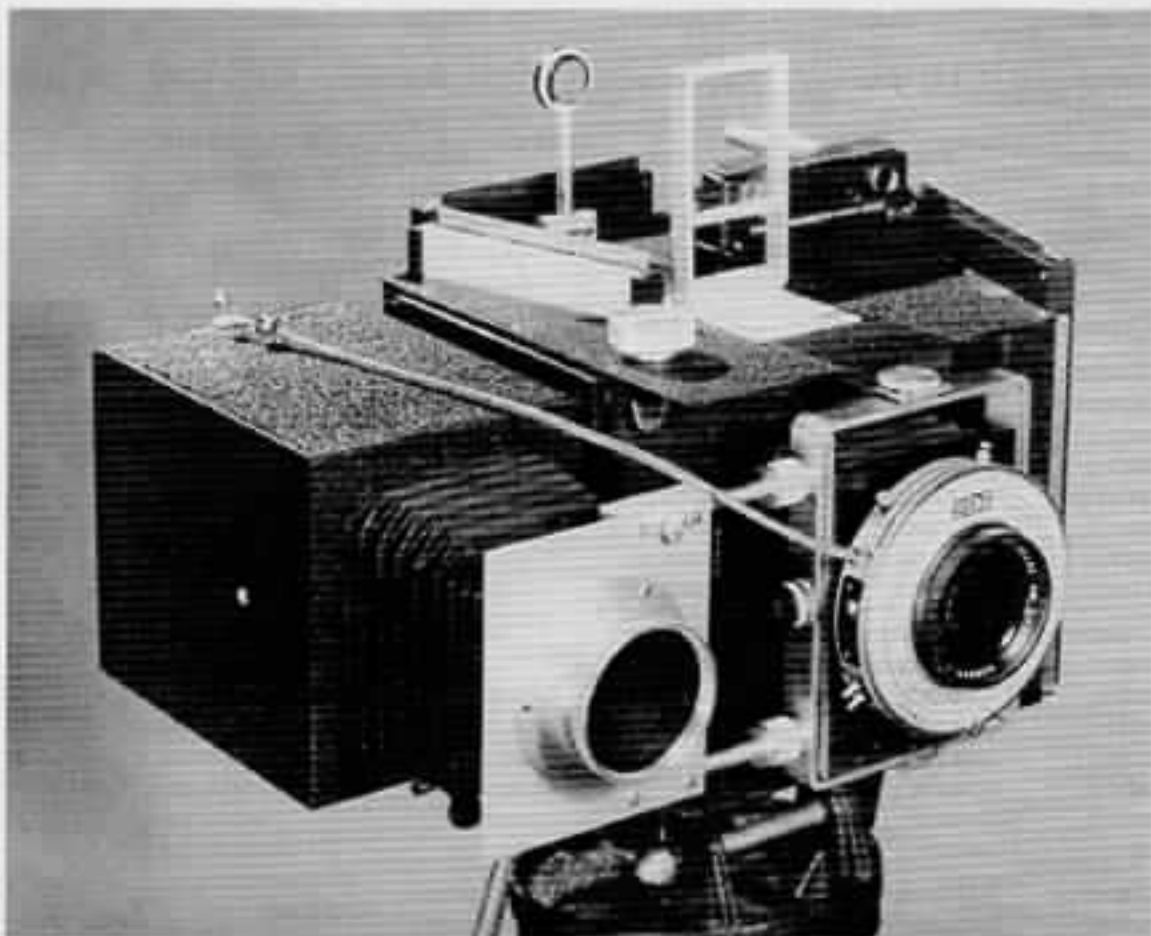
Latitude is Extraordinary. While color photography demands closer supervision of direction, distribution and color of light than does routine black and white work, the practical latitude of approved panchromatic films in Curtis Cameras is substantially that enjoyed in black and white photography. Exposure variations that would result in complete failure with color films yield fully printable negatives from the Curtis Camera. This is, of course, due to the fact that no reversal operation is necessary with the Color Camera.

Technical Background Unnecessary. While a good working knowledge of basic photography is of vast importance and help to the user of a Color Camera, actually the simplicity, latitude, speed and directness of the Color Camera procedure contribute in no small degree to the outstanding success many inexperienced Curtis Color Camera owners have achieved.

Delicacy and Fragility a Canard. While the modern Color Camera is a highly precise instrument that demands intelligent, careful handling, it is no more delicate than its lens and shutter. Certainly it is no more demanding of careful handling than is a good electronic exposure meter.

The designer of Curtis Color Cameras has traveled with one of them in the trunk of his car for twenty years. His current camera has survived twenty thousand miles of such travel in all kinds of climate and has had no maintenance other than a cleaning of the interior with filtered compressed air once a year. Film holders are, of course, dusted before each loading.

Two Fine Camera Models. The Curtis Color-Scout, introduced in 1939, today is world-famous as a small, light, fast Color Camera of exquisite precision. Deliberately designed so as to make possible factory rebuilding for modernization, the Color-Scout today enjoys the distinction of having virtually zero obsolescence. Some ninety per cent. of all Color-Scouts sold prior to the war have been rebuilt into 1947-48 models. With the exception of the shutters and rangefinders, neither of which was made by Curtis, these factory reconditioned cameras are equal to new.



COLOR-MASTER 4 x 5 WITH CURTIS TWIN LENS FOCUSING VIEWFINDER

Designed particularly for portraiture and especially for the portraiture of children, the Color-Master fitted with the Curtis Twin Lens Focusing Viewfinder affords new freedom in composing and critically focusing difficult subjects.

The viewfinder lens is a precision-ground-and-polished triplet plastic lens of excellent definition and correction, carefully and individually matched in focal length to the camera anastigmat. The aperture of the viewfinder lens is somewhat larger than that of the camera objective to insure that the camera focus will always be better than that seen by the operator.

Parallax is precisely corrected for any distance and subsequently the image appearing on the viewfinder ground glass is identical in size and image placement with that in the camera. The synchronized viewfinder is available only as a factory-installed accessory but may be added to old cameras.

The Color-Scout was purposely designed to use a relatively narrow-angle or long-focus lens. This usually arduous restriction accomplishes its intended purpose, in that it automatically forces the user to eliminate most non-essential detail, improving perspective and composition. For portraits, the Color-Scout is supreme where moderate cost and finest quality are desired.

The Color-Scout takes $2\frac{1}{2} \times 3\frac{1}{2}$ (Size 520) film packs or $2\frac{1}{2} \times 3\frac{1}{2}$ (6.5 x 9 cm.) sheet film. Because of the focal length of the lens ($7\frac{1}{2}$ inch), the image size in a portrait is entirely adequate to permit standard portrait retouching. Color-Scout portraits up to 11 x 14 are virtually grainless.

The Curtis Color-Master. Unquestionably the finest instrument ever built for direct color photography, the Curtis Color-Master represents the cumulative engineering and practical field experience of more than twenty years of continuous color photographic research. The camera was introduced in late 1945.

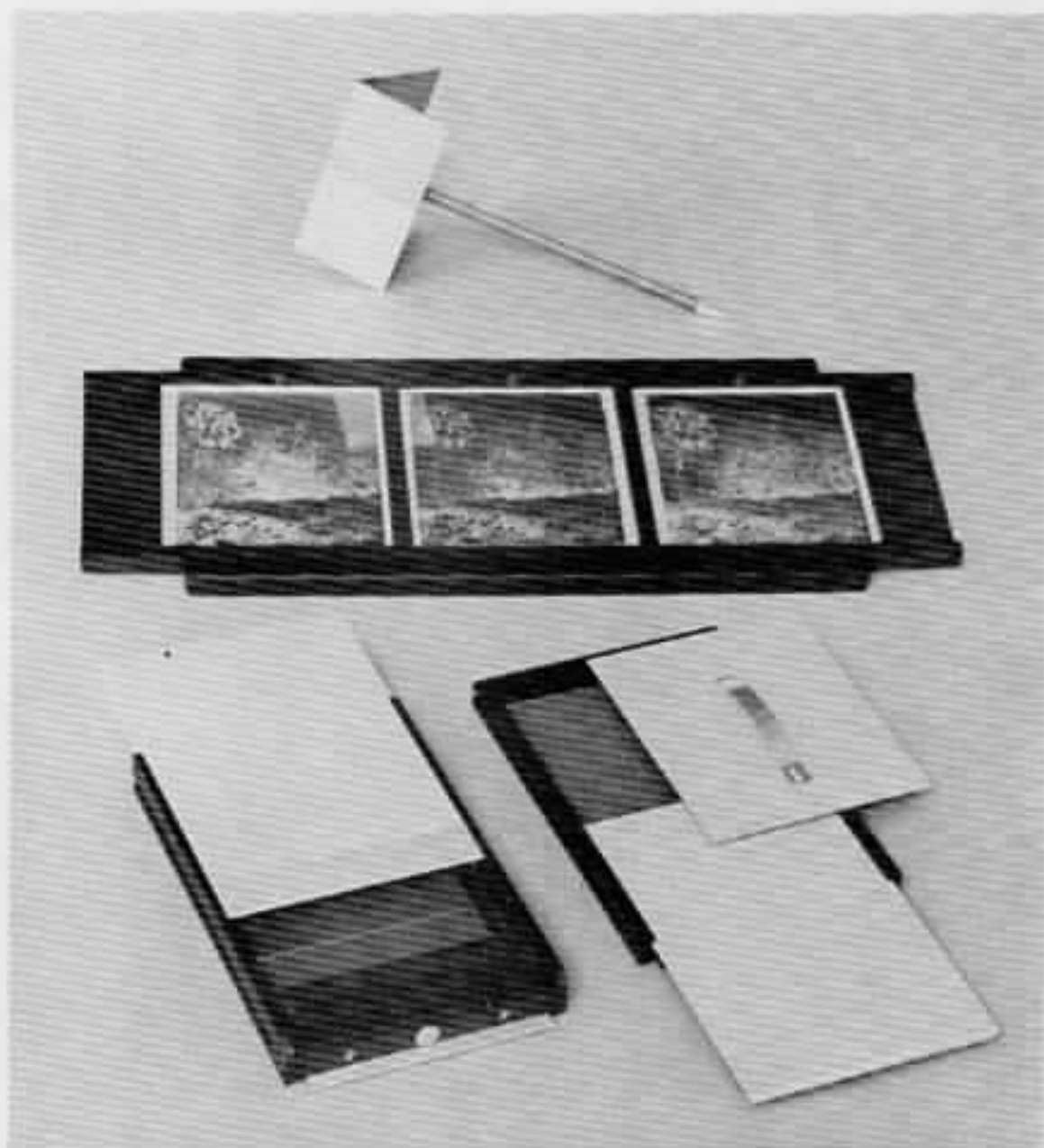
While accepting 4 x 5 film packs or sheet film, the Color-Master is but little larger than a 4 x 5 reflex black and white camera and weighs only $8\frac{1}{2}$ lbs. The Color-Master may be hand-held if necessary to capture a fleeting shot in a hurry.

Embodying every valuable feature previously available on modern color cameras, the Color-Master enjoys many unique advantages. A rising and falling lens board, pivoted on the optic axis for lens swings in both vertical and horizontal directions, assists in obtaining great depth of focus at large stops. This is an outstanding aid in photographing close-ups in the field where movement of the subject in a breeze might preclude the possibility of stopping down sufficiently to obtain the desired depth of focus.

The Color-Master may be fitted with $8\frac{1}{2}$ to 10 inch lenses, or interchangeably for both if desired. The $8\frac{1}{2}$ inch on 4 x 5 represents, it is believed, the widest angle of coverage ever accomplished on a direct color camera and is sufficient to permit the convenient photography of groups in portraiture or table set-ups, for example, in commercial work. The 10 inch lens, on the other hand, gives the Color-Master much of the automatic good perspective that has made the Color-Scout so much a favorite in the portrait field.

The Choice of Camera. Both of the Curtis Color Cameras represent the very top level of precision and performance. There is no difference in the quality of materials, workmanship or productivity. The very considerable difference in price is due to the method of construction and to certain costly movements and accessory features that are found in the Color-Master.

In order to reduce weight, the Color-Master is built entirely of



COLOR CAMERA ACCESSORIES ENGINEERED AND BUILT BY CURTIS

Top: Handy two-tone gray reference object which gives exact printing ratio regardless of usual variations in color temperature of light, if included in the negative. Center: The Curtis Compensating Negative Carrier for Omega D-II Enlarger which precisely maintains negative emulsion plane register. Left: Curtis Precision-made Film Pack Magazine with in-built elevating filter which lifts entire pack of films clear of the steel case, producing perfectly registered negatives. Right: Curtis Precision-made sheet film holder with in-built filter which acts as pressure plate to keep film flat.

bench-fabricated extruded Duralumin. This construction, while very costly and requiring the work of the most highly skilled instrument craftsmen, results in a saving of nearly 40 per cent. of the dead weight. Every piece of the Color-Master is precision-machined to an exacting gage fit.

The Color-Scout, while not in any sense less precise, is built around a light, strong, aluminum alloy casting, precision-machined. The weight of the Color-Scout is 7½ pounds.

Both cameras enjoy the established Curtis facility of low-cost rebuilding or modernization. Therefore, neither camera will ever become obsolete, each being susceptible of modernization to take care of improvements in filters, mirrors and light distribution changes to fit new and improved panchromatic films as they come into the market.

Service. Consultation. Instruction. Curtis Camera repair and maintenance service is prompt and efficient. All critical parts are carried as spares. Broken or damaged filters can be matched precisely for density and thickness. Standard all risk camera insurance covers most accidental damage as well as fire and theft. Every camera owner should have this protection. Information may be obtained from insurance brokers.

Curtis Consultation and Instruction in the use of Curtis Color Cameras is just as complete and extensive as the owner of a camera requires. Starting with the very complete Curtis Handbook of Color Photography in three parts, and extending to educational exhibits consisting of specimen sets of negatives, color printing matrices and color prints for home study, the owner may, if desired, arrange for personal, resident study in Curtis Laboratories under a reasonable hourly or per diem charge. The consultation and instruction are designed, not to supplant regular photographic schools, but to supplement such basic photographic instruction with highly specialized work in a splendid Color Laboratory having facilities for demonstration and practice not available to the average school.

Color-Tested Sensitive Materials. While the approved types of panchromatic sheet film and film packs may be purchased from any regular photographic dealer, Curtis Laboratories, Inc. maintain stocks of Color-Tested emulsion numbers of both sheet and film pack negative material as well as matrix film for color printing. This pre-tested film is available at no increase in regular market prices and carries with it valuable data in respect to correct development times, the use of compensating filters where necessary, etc.

CURTIS LABORATORIES, INC.
2718 Griffith Park Blvd.
Los Angeles 27, California

NEOTONE—

THE CURTIS DYE TONING PROCESS

The simplest color printing process known to the art, Neotone offers to those who wish to make an occasional color print, an ideal medium demanding but little knowledge of basic color photography and a minimum of skill.

Neotone prints are made on a thin base, hard, easily handled film known as "litho film." Eastman Kodalith is an excellent example and very satisfactory. Printed from color separation negatives (Curtis will make them for you if you fear this step), each Neotone sheet is developed in a special, very soft-gradation developer known as Curtis No. 73, into a black and white "positive" which looks similar to a regular projection slide. Development is but $1\frac{1}{2}$ minutes. Fixing is in a special Neotone Fixer and is complete in $1\frac{1}{2}$ minutes. A five minute wash completes the first steps.

You may either dry these black and white positives, holding them for subsequent toning or you may proceed forthwith to the color steps. The black silver image is now removed with Neotone Bleach, taking $1\frac{1}{2}$ minutes. A wash of $1\frac{1}{2}$ minutes clears the bleach solution and you now fix in Neotone Fixer (reused) for a minute or so to clear the milky residue. Now your films are clear and transparent. Wash for five minutes and stain-up in Neotone Dyes for 3 to 5 minutes. If you prefer, you may dry the clear films to store until it is convenient to complete the color processing.

After staining in Neotone Dyes, each film is washed in tap water until the whites of the subject (or the safe-edge) are clean. This takes from two to five minutes depending upon the alkalinity of your water. You stop the clearing action by immersing the film in $\frac{1}{2}\%$ acetic acid.

Now you may superimpose the colored images (placing a sheet of plain Kodapak or a slipsheet of plain cellulose nitrate or acetate between) on a white base such as the tray bottom to see color balance. If one color predominates, place that film back in tap water and reduce until it "fits" the others. If one is weak, re-stain it for a few minutes.

Neotone prints are assembled dry without stripping or transferring. Just dry the films when in satisfactory balance, taking a few minutes under a fan, and assemble in register on a white background. Tape each sheet at the corners with cellulose tape. Cover the print with a cut-out mat and stand back to enjoy the simplest color print process ever devised.

Neotone Home Study Kit. Containing a set of Neotone Print films processed and stained but not mounted, a demonstration film showing the four major steps, sufficient Neotone Dyes and Chemicals to make 8 to 12 prints 8 x 10 or equal, and full directions - - - - - Price \$9.95

Neotone Replacement Kit. Containing Dyes and Chemicals only, sufficient to make 16 to 24 prints, 8 x 10 or equal - - - - - Price \$6.95

CURTIS LABORATORIES, INC., 2718 GRIFFITH PARK BLVD., LOS ANGELES 27, Cal.

PERMATONE—

THE CURTIS DYE TRANSFER PROCESS

Designed to satisfy the most exacting requirements of the advanced amateur pictorialist as well as the photographic illustrator who produces color photographic art for advertising purposes, the Curtis Permatone Process employs the well known principle of dye transfer which enables one to make a multiplicity of virtually identical color prints on paper from a single set of printing plates or matrices.

The Permatone Process employs matrices made on Kodak Matrix Film by a chemical process that imparts certain very important characteristics where high color fidelity, saturation and reproducibility are required.

The steps in making a Permatone print are few and simple. First there is the exposure through the base from color separation negatives (either from color film or from a color camera or "A-B-C".) Then a development in a brand-new type of color matrix developer known as Curtis Developer No. 73 for 3 minutes. This developer may be controlled or modified to produce a range of contrasts in the print comparable to four grades of paper. After short stop, a 3 minute wash is given in running water.

There follows a Hardening-Bleach for 3 minutes then hot water wash or development to remove all soluble gelatine not affected by exposure. At this stage comes the unique and highly important chemical step that imparts to Permatone Matrices such unusual properties. The hot-water-developed film is "flushed" by exposure for a few seconds to strong white light. The original No. 73 developer (saved from Step 2) is flooded over the films and the exposed silver bromide residue is redeveloped into a strong black and white image that shows every detail and nuance of the subject, affording an infallible guide to an experienced technician as to correctness of exposure and balance. The dye print follows this redeveloped image almost exactly in gradation and density.

Now, instead of attempting to dye-up and transfer (which is possible) from a blackened image which obscures all visual color properties, we completely clear all but the faintest traces of an image with Curtis Final Fixing and Clearing Bath No. 45 which acts in seconds. A short wash (about two minutes) and a rinse in distilled water finishes the processing and we hang up the mats to dry before staining.

Stained with Curtis Permatone Dyes, which keep in solution for years, Permatone Mat images are transferred in about five minutes either with mechanical transfer devices or, as preferred by experienced operators, by the visual lay down and slip sheet method. Extraordinary strength of color is obtainable with Permatone Mats. Almost unlimited color modification and correction are possible. Local color intensification may be practiced to build up hues that are defective in the original, resulting in a print that is "better than the original."

Extensive etching, retouching and spotting may be done on Permatone prints

and on the printing matrices. Blemishes may be removed with the etching knife so skillfully that long runs of prints will show no trace of the correction.

Because of the remarkable clarity of the gelatine image in Permatone Mats, the transfer technician is afforded a clear guide to color balance and density before and while making the transfer. While the fact may not be known to many of the new members of the fraternity nor to manufacturers who have had but limited experience in meeting the problems of daily color print production for the trade, the ability to visualize every step of the transfer operation is one of the most important facilities of the expert dye transfer color printer. Such an expert can quickly and with perfect photographic fidelity, make alterations or corrections in a dye transfer print comparable to those commonly produced in pigment prints by extensive air-brushing or hand-applied art.

In short, the Curtis Permatone Process is intended for the use of critical and discriminating workers. While basically simple and easy to perform, the process is worthy of far greater diligence, experience and artistic background than is represented by the casual snapshot photographer. At the same time, the simplicity, certainty and low cost of production should commend the process to the serious amateur or pictorialist who wishes to make color prints of the most outstanding quality. It is not in any sense limited to commercial or professional workers.

Permatone Home Study Kits. Since it is impossible to describe in words the appearance, gradation and general character of Permatone Prints and Matrices, and, equally is it impossible adequately to reproduce them in any standard photomechanical process, Curtis Laboratories, Inc. have prepared home study demonstration kits for beginners in Permatone (regardless of their previous experience in other processes) to afford graphic and expertly-made examples of the matrices and prints.

The Permatone Kit consists of a set of 3 x 10 printing matrices, stained up to show balance and gradation; a finished Permatone Color Print in 3 x 10 size; complete data on exposure and balance for the set; a set of Permatone Processing Chemicals and Dyes sufficient to make eight sets of 3 x 10 mats, and dyes to make about 100 3 x 10 transfers. The kit contains everything but matrix film which should be bought from your regular dealer (or from Curtis Laboratories, Inc. if you wish pre-tested film with laboratory data on speed and contrast.)

The Permatone Home Study Kit, as above described - - Price \$24.95

Permatone Replacement Kit, containing only the replacement units of developer, hardening bleach and final fixer required for processing an additional eight sets of 3 x 10 matrices - - - - Price \$ 4.95

CURTIS LABORATORIES, INC. 2718 GRIFFITH PARK BLVD., LOS ANGELES 27, CALIF.

CURTIS COLOR SEPARATION NEGATIVE ASSEMBLY

An assembly of low-priced but well integrated and highly efficient parts and accessories, combined with practical demonstration examples of good color separation negatives, a color film subject on Ektachrome and a sample mask negative.

Intended to provide a home-study assembly with expertly-made guide exhibits for you to duplicate.

The Curtis Color Separation Negative Assembly comprises the following:

Balanced Filter Slide of Gelatine Foils in Mount, with Red, Green, Blue and Mask Filters in sequence, ready to mount over your enlarger lens; Printing Frame and Locator with Diffuser Plate, Mounting Plate and Gray Scale; Ektachrome Sheet Film Subject of high technical excellence; Mask Negative and Color Separation Negatives from the Ektachrome; Data Sheet giving all exposure and development data on negatives; one gal. unit Curtis No. 52 Developer; One quart unit Curtis No. 67 Mask Developer; Book "How to Make Good Color Separation Negatives."

Replacement units of Mask and Negative Developer may be had from open stock in 2 gallon, 1 gallon or 1 quart (Mask Developer only in quart size) without buying other elements of the assembly kit.

The negative sensitive material required is Eastman Kodak Super XX Sheet film, obtainable from your regular dealer. Super XX film, Ektachrome, Matrix Film, and Super XX Film Packs may be obtained from Curtis Laboratories, Inc. in pre-tested emulsion numbers at current market prices.

Exposure balance, development times, and advice concerning the necessary color balance or compensating filters for a given lot will be furnished by Curtis with each purchase of pre-tested film. This service is rendered in the interest of better color photography.

The present kit is intended to serve as a low-priced temporary substitute for the regular Curtis Color Separation Printers for those who have limited budgets. The results obtainable are quite equal to those achieved with the Color Printers but at the expense of time and additional trouble. If any sort of commercial production or extensive amateur work is contemplated, the regular Color Printers are recommended in lieu of this kit.

Curtis Color Separation Negative Assembly as above described, Price \$14.95

Curtis No. 52 Color Separation Negative Developer, replacements: 1 gal. units \$1.60, 2 gal units \$2.40.

Curtis Mask Developer No.67, 1 quart units \$.90, 2 gal. units \$2.40

CURTIS LABORATORIES, INC., 2713 GRIFFITH PARK BLVD., LOS ANGELES 27, CALIF.

CURTIS COLOR CAMERA PRICE LIST

Effective July 1, 1948. Prices subject to change without notice.
 Federal Excise Tax must be added to items upon which it is applicable.
 Both Curtis Color Cameras are tax exempt but at present lenses, rangefinders,
 viewfinders, holders and magazines are taxable.

| | |
|---|-----------|
| <u>CURTIS COLOR-MASTER</u> , 4 x 5, camera only, without lens or accessories but including three Precision Sheet Film Holders with filters - - - - - | \$1070.00 |
| Mounting and testing customer's (8 $\frac{1}{2}$ inch) lens on Color-Master - - - - - | 10.00 |
| Kodak Commercial Ektar, 8 $\frac{1}{2}$ inch, in No. 3 Synchro Shutter, factory-mounted and tested on Color-Master - - - - - | 162.00 |
| Kodak Commercial Ektar, 10 inch, in No. 3 Synchro Shutter, factory-mounted and tested on Color-Master - - - - - | 204.00 |
| Adapter collar for interchanging the 8 $\frac{1}{2}$ and 10 inch Ektars on the Color-Master - - - - - | 35.00 |
| Synchronized, lens coupled rangefinder, coupled to 8 $\frac{1}{2}$ inch lenses only, factory mounted on Color-Master - - - - - | 75.00 |
| Curtis Precision Direct Vision Viewfinder, mounted on Color-Master - - - - | 25.00 |
| Curtis Twin Lens Focusing Viewfinder, with objective matched to camera lens (can be matched to either 8 $\frac{1}{2}$ or 10 inch but not to both), synchronized with camera lens and demountably mounted on Color-Master - - - - - | 350.00 |
| Curtis Precision Film Pack Magazines, with matched cemented standard color separation filters and elevating pressure plate glass to maintain perfect register, for Color-Master, set of three - - - - - | 75.00 |
| Curtis Precision Sheet Film Holders, extra, per set of three, with matched cemented standard color separation filters - - - - - | 33.75 |
| Flash equipment, Heiland Synchro Special Battery Case and Reflector, demountably mounted on Camera - - - - - | 15.75 |
| <u>CURTIS COLOR-SCOUT</u> 2 $\frac{1}{2}$ x 3 $\frac{1}{2}$, complete outfit as shown in catalog, with f/4.5, 7 $\frac{1}{2}$ inch Ilex Paragon Lens in No. 3 Synchro Shutter, Lens-coupled, synchronized rangefinder, Curtis Precision Direct Vision Viewfinder, Heiland Flash Battery Holder and Reflector Mounted on Camera, with one set of Curtis Precision Film Pack Magazines including matched, cemented standard color separation filters with elevating pressure plate glass to maintain perfect register, in fitted carrying case ready for instant use - - - - - | 595.00 |
| Extra (optional) Curtis Precision Sheet Film Holders, each with matched cemented glass standard color separation filter, per set of three - - - | 24.00 |

Note: The Color-Scout may be obtained without lens and customer's own 7 $\frac{1}{2}$ inch lens in shutter no larger than Synchro No. 3 mounted and tested for a charge of \$10.00. Credit of the current market price of the regular Paragon lens will be given customer who supplies his own lens. Customer's lens must be sent to Curtis factory for mounting.