

PHOTO • VIDEO • AUDIO • HIFI

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INSIDE PHOTOKINA NEWS



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VIDEOTAPE IS DEAD?

Recordable CD at Photokina Provides the First True Multimedia

by Don Sutherland

photokina—The digital revolution has sparked many predictions about the “death” of “traditional” media, and what medium is more traditional by now than videotape? It was the first carrier of “electronic photography,” and has been with us for over a generation. Shouldn’t we expect it to be “killed” by newer, more dramatic technologies at Photokina '94? This is, after all, the Photokina debut of recordable CD.

Recordable CD (or CD-R) is present at the Philips exhibit for distribution of full-motion video, and it brings the same benefits to animated subjects that Photo CD does to the still image.

For both motion and still applications, CD-R produces a digital image that can be archived and modemed along with other digital data; the recorded disc is a lightweight, compact physical carrier that costs little to transport and store; it does



not wear out in normal use; and the prospect for nearly instantaneous random access and “interactive” uses is fundamental to its nature.

And, even more fascinating, the Video CD uses a playback device that is mechanically the same as an audio CD player, a CD-ROM drive, and a Photo CD player. In other words, a single CD playback device can become the first true multimedia system for the masses, capable of reproducing “CD quality” audio,

Shouldn't we expect traditional videotape to be “Killed” by newer technologies at Photokina '94?

“film quality” photographs, “publication quality” text layouts, and now, “VHS quality” video.

Who needs videotape?

Both Philips and Kodak are exhibiting desktop CD writers at Photokina '94. With these devices and the proper software, individuals can record their own audio CDs, text CDs, photo CDs, and now Video CDs all on the same machine.

At the Philips exhibit, showgoers can evaluate the Photokina debut of CD-V (Video CD) under the “White Book Standard” originated last June by a consortium including Philips, JVC, Matsushita (Panasonic), and Sony.

All White Book recordings can play on CD-I (Interactive) players

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**Exhibitors Listing
and Floor Plans
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Worlds largest publisher of
Photographic Business Magazines

Traditional Finishing: The Core Lab Business

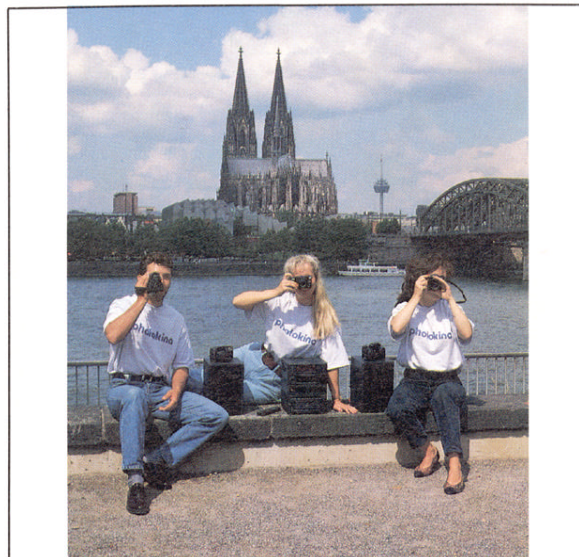
by Elizabeth Cunningham

photokina—Photofinishing visitors to photokina have been presented with the hype and wizardry of digital imaging from various angles. Every imaginable imaging system, from digital camera pickup to direct digital output for high-end commercial labs, large wholesale finishers and even down to the minilab level has been touted throughout the halls and even in this journal. However, one must not lose sight of its core business—that is processing film and printing pictures the fastest and most economical way, and producing the finest quality.

Digital is fun. Digital is exciting. Digital is the new way of manipulating images, but it remains an addendum to the core finishing business—D&P.

Contrary to what many believe, this fair is still sparked with enthusiasm for the silver halide image and its laboratory finishing side. All three levels of Hall 13 were busy with visitors immediately after the fair opened on the first day. It is true that some stands were busier than others, but there is business to be consummated at this fair—much more than two years ago.

“Photokina represents an important show for us,” said Werner Warden, president of Colex, “because it provided a high percentage of our marketplace. It started off great; we



Addressing the Photokina press last Thursday evening, Eastman Kodak CEO George Fisher declared that the next two years will see more progress in the imaging field than we've seen in the past ten. This year's Photokina remains positioned at the cutting edge.

are very encouraged . . . many visitors are coming from the Far East.

Processors, enlargers, printers, big cameras and chemical management are a big part of the labs' daily existence. You have read about

many new films and finishing materials from the principle suppliers, Agfa, Eastman Kodak and Fuji. Ilford continues to make its mark in black-and-white with the introduc-

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WORLD FAIR IMAGING • SOUND • PROFESSIONAL MEDIA

SAMSUNG SLIM ZOOM 1150

photokina — Samsung Aerospace Ind., Ltd. announced their Slim Zoom 1150: a full-featured, long zoom model offering a full array of features for sophisticated, creative photography. The Samsung Slim Zoom 1150 allows for simplified, error-free operation.



The new camera's numerous features include: a built-in 38-115 mm zoom lens with macro and super macro capabilities, automatic exposure, automatic focusing, bright frame zoom finder, automatic film speed setting, automatic loading, advance and rewind, automatic flash including a red-eye reduction mode, multi-mode self-timer and in-

terval timer, a total control top-deck Liquid Crystal Display (LCD) and a sweeping array of easy-to-use, all automatic features for high quality point-and-shoot picture taking.

With its many features, the new camera is ideally suited for any family member regardless of their photographic skills. For the less knowledgeable, the camera can be used in its fully automatic mode where it adjusts focus, exposure, film speed, loading and flash. For the more advanced photographer, many more sophisticated features can be accessed for a higher level of creativity.

The Slim Zoom 1150 is equipped with a 38-115 mm zoom lens for wide angle, portrait and telephoto subjects. The high speed f/3.9 - f/8.8 high quality lens incorporates Samsung's traditional design excellence for brilliant colours and sharp reproduction. The lens also includes macro capabilities.

FUJI AT PHOTOKINA

photokina — For the general consumer market, Fujifilm introduces Fujicolor Super G Plus, the latest enhancement of the Super G series, which has already won high acclaim among color negative film users worldwide. Available in ISO 100, 200, 400, and 800 speeds. Super G Plus features Fujifilm's state-of-the-art emulsion technology.

The Fujichrome Sensia series has proved tremendously popular since its launch this spring and was voted "European Color Slide Film of the Year '94-'95" by the European Awards Panel (EAP) in recognition of its superb quality. The series has now been enhanced with the addition of an ISO 200 film to the existing Sensia 100 and 400 versions.

The new Fujicolor QuickSnap Super 800 Tele offers the flexibility of ISO 800 film and features a 100mm telephoto lens to support 3x magnification. It is a versatile addition to the QuickSnap series of film-with-lens products.

Fujifilm is also exhibiting six new camera models at Photokina 1994, covering the spectrum from starter models to high-end equipment. On display are the DL Super Mini, the DL270 Zoom, the DL95 Super, the Clear Shot, the Clear Shot Super, and the Clear Shot Plus.

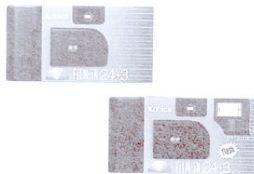
The revolutionary Pictostat Instant Print System has received high acclaim since its launch as Fujifilm's unique system for producing

high-quality photographic prints in one minute with no processing chemicals. The introduction of the Pictostat 300 offers even greater possibilities of application by supporting instant printing from negative film as well as positive film and photographs. Customers increasingly order enlargements when they pick up their orders, and the Pictostat 300 gives photoshops the opportunity to develop a new value-added print business by generating on-the-spot prints from a customer's favorite negatives.

In the professional product sector, Fujichrome Provia 100 has been chosen by the TIPA as its "Color Film of the Year". Following in the footsteps of Velvia, Provia 100 demonstrates once again the strength of Fujifilm's products for professional photographers. Fujicolor NPS 160 and NPL 160 professional color negative films have raised the quality of portrait and wedding photography to new heights since their launch this spring. Their high image quality and ease of use have made them a focus of worldwide attention. Fujicolor Super G Plus 800 is a new version of the Super G 800 color negative film which continues to command extremely strong support among American and European press photographers. The new version offers improved printing performance and will be launched worldwide in a twenty-roll pro pack.

Konica Film-In/Film-In Flash

photokina — Konica Corporation announces the marketing of its new single-use cameras, the Konica Film-In and the Konica Film-In Flash, both available in 27 and 36 exposures. The new Konica Film-Ins are ultra-compact in size, about the height and width of a business card. A finder lens has been newly adapted for easy viewing and fast, accurate framing of pictures. The new Film-Ins are pre-loaded with Konica's ISO400 color films, which provide rich color prints with outstanding sharpness and natural col-



or balance under a wide range of exposure conditions.

Large-Format Printers For Poster and Display Markets

by Henry Wilhelm

Note: This is the third of three articles on the many options now available for making prints from scanned and digitized photographic originals, digital cameras, and computer-generated images. The previous installments covered digi-

tal output with traditional photographic papers, thermal dye transfer printers, Iris high-resolution ink jet printers, the Ilford Printasia System, and the Fuji Pictography 3000 digital printer.

photokina—One needs only to walk through the front doors of Hall 13, where electronic imaging systems, minilabs, and photolab equipment are displayed, to come face-to-face with the tremendous impact that digital imaging technologies are having on the production of large-format posters, billboards, and other photographic display products. The photolab business at every level is in a transformation that is much deeper and far-reaching than was the worldwide shift from B&W to color that took place in the 1960's and 1970's.

According to Vance Woolwine, director of photographic marketing for LaserMaster, the company has to date sold more than 1,500 of these systems worldwide and this year established a European subsidiary to help handle the increased demand. Depending on the configuration, these systems sell in the \$20-35,000 US price range. This success has inspired many other firms both in Europe and the U.S. to enter the field, and many of these systems are being exhibited at Photokina. For example, visitors to the Durst stand in Hall 13.1 (R31/S31)



Wide-Format Ink Jet

As one walk's through the exhibits in Hall 13.2, it seems like ink jet poster printers and their attached computers and glowing color monitors are everywhere. The colorful output emerging from these moderately-priced machines is spread out on the floor, hanging on the walls, and being carried away by visitors eager for samples. And these ink jet systems didn't even exist when the last Photokina took place two years ago in 1992!

This technology was introduced to the photographic and electronic service bureau fields in 1993 by the LaserMaster Corporation (Hall 13.2 M10/N10) with its turnkey Big Color DisplayMaker ink jet system which the Minnesota-based firm built around an ENCAD Novajet II ink jet printer. Now supplied with the improved Novajet III printer (ENCAD Inc., San Diego, California), these amazingly compact systems can produce digital output on a variety of paper and plastic media up to 36 inches by 10 feet in size. These large-format images have found a ready market as posters, murals, backlit signs, and other display markets.

will see the new Durst Rho 90 ink jet system—the product description posters found all over the Durst stand were produced with this system.

Hewlett Packard, another California-based company, has also entered the wide-format ink jet market with its DesignJet 650C ink jet printer and this unit is being demonstrated in HP's stand in Hall 13.2 (L9/M9).

These ink jet printers typically print at 300 dpi with CMYK water-based inks. Print samples tested by this writer exhibited moderate light fading stability—not as good as that of color negative papers or Kodak's thermal dye prints, but better than other thermal dye transfer prints. The prints are very UV-sensitive, and the images are easily damaged if water should come into contact with the water-based inks. For protection, the prints are usually laminated on one or both sides with clear plastic laminates. When laminated, the stability of the prints appears to be adequate for the short-term applications that comprise most of their market.

New, more stable inks, such as

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Large-Format Printers

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The IIfloJet inks just announced by Ilford, will almost certainly become available for these machines in the future. For long-term or outdoor display, the electrostatic pigment prints described below are, at present, much longer lasting.

The ENCAD and Hewlett Packard wide-format inkjet printers were designed for CAD plotting of lines and text and are not capable of producing true continuous-tone "photographic" output. The systems supplied by LaserMaster and other vendors use a variety of computer-driven screening and dithering methods that attempt to create the illusion of continuous-tone reproduction. Viewed from a distance—2 or 3 meters, for example—the images can look surprisingly good. All of this is a very promising technology and market segment, and it will be most interesting to see how it develops over the next few years, both in terms of image quality and image permanence.



Epson Stylus Color Ink Jet Printer

While on the subject of ink jet printers, one cannot fail to mention the Epson Stylus Color printer introduced earlier this year. This is a 720 dpi printer that produces letter-size output of really amazing, almost photographic quality. Even more astonishing, given its reproduction capabilities, is the low \$600 US price of the printer and the minimal \$0.30 per print cost of its output.

The inks supplied by Epson at present have very poor light fading stability (worse, in fact, than any other high-quality imaging device of which this writer is aware). But, with more stable inks such as Ilford's new IIfloJet inks, and perhaps a larger output format as well, the Epson Stylus Color printer could find a very large market in the photography and desktop imaging fields. This is another product to keep a close eye on.

Large-Format Electrostatic Printers

Using pigments instead of dyes to form the color image, large-format liquid-toner electrostatic plotters such as those supplied by Raster Graphics (Sunnyvale, California)

and Xerox/Versatec can produce highly stable images which, when laminated or transferred top vinyl, are suitable for outdoor applications such as billboards and truck signage.

Like the wide format ink jet printers described above, these machines cannot produce true, continuous-tone output. In an attempt to make up for this shortcoming, special screening and dithering techniques are employed to create the illusion of continuous-tone images. And, linked output from the ink jet machines, electrostatic color images can look pretty good when viewed at a distance.

Turnkey electrostatic imaging systems are much more expensive than ink jet systems, but the electrostatics have the advantage of much faster output, lower consumable costs, and far superior image permanence. The Raster Graphics Digital ColorStation 5400, for example, can print a 10 foot square poster in only one minute! The machine, which can produce prints up to 52 inches wide by almost unlimited

length, can be seen in Hall 13.2 at stand P57.

Complete electrostatic imaging systems with front-end computers and software are supplied by Cactus, an early pioneer in this field (Hall 13.2 N40), 3M's Commercial Graphics Division, under the Scotchprint name (Hall 8.1 C21/D21), and oth-



ers. 3M offers a 5-year outdoor durability guarantee for Scotchprint images laminated on 3M's vinyl base material and used as advertisements on truck bodies and similar applications.

Large-Format Thermal Wax Transfer

Summagraphics (Hall 13.2 H9) a California-based company, has in-

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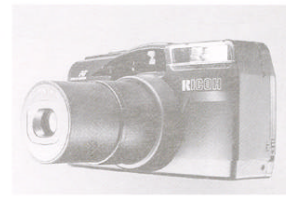
RICOH RZ-1000 ZOOM COMPACT

photokina — The RZ-1000 is the new, fully-automatic 35 mm compact camera with an integrated zoom lens. It meets the highest requirements regarding technique and operating comfort and is in fact one of the smallest in its class.

The integral zoom lens is made up of 7 elements in 6 groups which provide all the conditions for brilliant color photographs. With a focal length of 38-105 mm the lens is suitable for all photographic situations.

The RZ-1000 is further distinguished by a precise and safe focusing system. Multi-autofocus system (seven measuring points and 1707 measuring steps) automatically guarantees optimum image sharpness. The integrated elec-

tronic flash is switched on automatically in poor light conditions and back lit situations, thus guarantee-



ing balanced light conditions at all times. Numerous creative modes complete the performance of the RZ-1000.

Eseco Compucolor AF-45

photokina — The Compucolor AF-45 Enlarger is more than an enlarger, it's a money-making machine.



The Compucolor AF45 Automatic Analyze-loop Enlarging System can immediately triple your production by using the latest fast dedicated computer technology. You can easily make jumbo enlargements on the baseboard or even photographs with wall projection. It is so

simple to operate that faster production is natural. Select the composition, push a button, make a print, that is all there is to it. All you have to change is your tedious work methods into a pleasant and profitable task.

Eseco Automation takes care of the rest; critical autofocus, automatic analysis and filter setting, electronic shutter and timer, turret lens selection, negative carrier and mixing chamber identification to avoid operator errors. It even prints out the job number, and all the information needed to repeat the job for future use. Five separate methods of analysis provide for unparalleled accuracy with the AF-45. Full integration, spot probe, or combine the two—you've never stuck with one, wishing for the other. As a translator it meets all off easel systems on the market.

The AF-45 even features auto-size for crop cards and quick calculations for print size to print size.

Canon Accessories

photokina — Canon has introduced a complete line of photographic accessories designed to meet the specific needs of advanced amateurs, professionals and casual shooters. The accessories—tripods, gadget bags, back pack, filter cases, camera straps and compact camera cases—provide the same durability, functional features and reliability synonymous with the Canon brand name.

Canon's new line of tripods includes three versatile models

designed for professionals, advanced amateurs and casual shooters as well as a table pod ideal for tight shooting situations and macro photography. Ball heads and pan heads that add tremendous versatility and creative latitude are also available.

The Canon Professional Gadget Bag 1 and the Deluxe Gadget Bag 10 are rugged, oversized equipment bags with ample space and extra pockets for carrying a vast assortment of photo equipment to any location.

Kinon Mini Cam 35

photokina—The Kinon Mini Cam 35 is a palm-sized camera that has precise autofocus and autoexposure systems. The small, slim camera also affords autoflash, DX-coding, fill-flash functions, red-eye reduction, and multiple-exposure capability. With the optional remote control, the photographer can add to the enjoyment of picture-taking in many imaginative ways. An LCD panel atop the camera displays important functions and flash and framing



information. The three-way flash allows for auto-flash when needed, flash off for capturing ambient lighting moods and fill-flash, ideal for backlit subjects. A built-in self-timer is also available.

Olympus Debuts Compact Camera

photokina—The lightweight, compact design of the Olympus Infinity Hi-Lite (U.S. name) makes it easy for photographers to keep the Infinity Hi-Lite on-hand for photo opportunities in almost any situation. With "auto-everything" features like advanced autofocus, automatic



exposure, automatic film loading, advance and rewind and built-in flash with versatile flash modes, including red-eye reduction, the Infinity Hi-Lite is easy to use and produces high-quality results time after time. Glass optics ensure superior picture quality while a real-image viewfinder makes composing a picture simple and accurate.

For increased creative control and versatility, Olympus equipped the Infinity Hi-Lite with an easy-to-use self-timer. Once the self-timer button is pushed, an icon is displayed

on the LCD panel, and the camera's built-in electronic self-timer is activated by the shutter release button. A red LED is illuminated during the 12-second delay, giving the photographer ample time to become part of the photo. The camera's LCD panel also allows photographers to check the battery level, exposure counter and flash mode.

The Infinity Hi-Lite makes picture taking virtually fool-proof thanks to its real image viewfinder, which includes an autofocus frame, close up correction marks, flash indicator, and auto focus indicator. The Hi-Lite also features four different flash modes, including Auto, which fires automatically in low light and back light to produce properly exposed photos; Auto-S, a feature found on more expensive models, which emits a series of rapid pre-flashes before the main flash, significantly reducing the red-eye effect that spoils many flash portraits; Flash Off, which is useful for capturing the natural light and atmosphere of a composition, or when flash photography is prohibited, and finally, Fill In, which eliminates unwanted shadows in outdoor portraits. Fill in is also useful for shooting a subject in strong side-lighting or backlighting.

Kodak Introduces Digital Camera

photokina—Eastman Kodak Company has introduced the world's highest-resolution portable, single-shot color digital camera designed for use both inside and outside the studio.

The Kodak professional DCS 460 digital camera features a 3060 x 2036 pixel CCD imager that delivers total resolution of 6 million pixels. The imager resides in a special electronic back fixed to the body of a Nikon N90 camera, one of Nikon's most advanced single-lens reflex (SLR) cameras.

Most digital cameras offering resolutions above 4 million pixels require multiple exposures to render a single color image, a characteristic that limits them to studio still-life applications. The DCS 460 is the first camera to bring multi-megapixel image quality to a state-of-the-art 35mm SLR. The result is a truly portable device capable of delivering fast, high-resolution digital images in a variety of applications, either in the field or in the studio.

Kodak designed the DCS 460 for a demanding group of customers that requires extremely high-resolution images from a portable, easy-to-use camera. Examples include scientific applications, such as microscopy; commercial uses, such as catalog and portrait photography; and medical applications, like telepathology. The camera also is well-suited for a range of military, law enforcement, and government applications.

The DCS 460 is as easy to use as the Nikon N90. To capture images, users simply compose, focus and shoot; a single shot simultaneously captures all three RGB colors. Once the camera is powered up, the time to the first shot is only .25 second.

Subsequent images then can be captured approximately every 12 seconds. The camera stores image files on any PCMCIA-ATA-compatible removable media, including flash memory cards and hard disk cards.



The camera can also serve as a card reader once users are ready to retrieve their images. A standard SCSI interface enables the camera to be connected directly to a Macintosh computer.

LaserMaster DisplayMaker

photokina—The DisplayMaker Professional is a four color inkjet printer and multi-platform Advanced Color Server that produces digital color output up to 36-inches wide and up to 18-feet long that's ideal for posters, displays, banners, backlit signs, and more. Using LaserMaster's proprietary ColorMark color-management and SmoothTone image-enhancement technologies, the DisplayMaker Professional produces beautiful, photographic-quality output directly from all of today's popular illustration, photo-manipulation and desktop publishing applications.

Large-Format Printers

(Continued from page 6)

roduced an innovative large-format thermal wax (resin) transfer machine that can image directly onto vinyl. According to the company, these images, which employ pigment colorants instead of dyes, are stable enough to permit extended outdoor display without lamination. The CMYK machine also has the unique capability of adding a fifth, spot color to the image using metallic or other special colors.

When equipped with digital controllers, color copiers can function

Digital image processing with Adobe Photoshop, FITS Imaging's Live Picture, and other software programs has finally given us control over the contrast and color saturation of color prints, and permits corrections of curve imbalance that were impossible in the past.

Most photographers working in B&W would feel it totally unacceptable to go into a darkroom with only a single contrast grade of paper, but this is what we were stuck with in color photography until the arrival of digital image processing.

It is clear that although high-resolution digital cameras have impor-



as high-speed digital color printers. Although color copiers fitted with digital controllers can cost \$60,000 US, or more, machines print much faster than other color output devices and the cost per copy is low. The EFI Fiery digital controller connected to a Canon Color Laser Copier was the first such digital output systems, and similar products are now available from Xerox, Minolta, Ricoh, Kodak, and others. Xerox and QMS also supply printer-only products.

Although the image quality of the output from these machines is not yet equivalent to traditional photography or thermal dye transfer prints, in many applications it is considered to be an acceptable substitute for traditional color prints. Particularly impressive is the image quality produced by the Xerox Majestik copier, which can be seen in the Ilford stand in Hall 8.1 (C1/D1 and C11/D11).

Color copiers employ pigments instead of dyes to form the color image, and this writer's tests with output from Xerox and Canon copiers show that they have better light fading stability than most traditional color papers.

On a recent visit to the new Andy Warhol Museum in Pittsburgh, Pennsylvania, this writer noted that most of the museum displays concerned with Warhol's life employed copies of B&W and color photographs, letters, newspaper clippings, and so forth that had been copied with a Canon Color Laser Copier. This is the kind of application that only a short time ago would have been done with traditional color photography.

At no time in the history of color photography has there been so many ways to make color prints.

tant applications, for the foreseeable future most photographs will continue to be originated on film. The real impact of digital imaging will be felt on the output side.

The digital darkroom—consisting of a film scanner, a computer running image-edition software, and a digital output device—is here. Few photographers who get a taste of this will ever go back to the old way of doing things. For most, this will not mean using the computer to overtly manipulate the image or to composite multiple images together. Instead, they will use these tools to—at long last—gain full control over the way their color photographs look. Dodging and burning can be done at the microscopic level. Dust and scratches can be eliminated. Subtle changes can be made in color balance and saturation.

And all of these things need be done only once—as many prints as desired can be output from the digital file. Retouching and potting individual prints is a thing of the past! Taken together, these new-found freedoms will encourage photographers to take the time to make their photographs look exactly the way they want them to look.

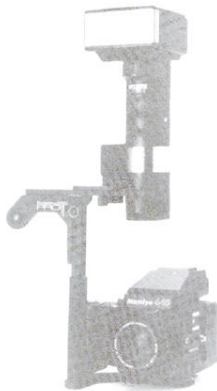
Another benefit of the move toward digital output is that it is now possible to employ high-stability pigments (instead of the inherently less stable organic dyes used with traditional color photographs) to make color prints that can be displayed for hundreds of years without noticeable fading.

The UltraStable pigment color process, developed by Charles Berger of Santa Cruz, California, was selected to print the Andre Kertesz

(Continued on page 36)

Saunders Shows Stroboframe

photokina—The Saunders Group is exhibiting its popular line of



Stroboframe Flash Brackets, including the new Pro-T model in hall 13.3, stand G 16.

Designed to keep the flash well above and centered over the camera lens, Stroboframe brackets have been best-sellers in America for many years. Wedding photographers in particular use Stroboframe brackets to effectively eliminate both the red-eye and harsh side shadows that commonly result from camera-mounted or side-mounted flash photography. Constructed of aircraft aluminum with a durable black finish, Stroboframe Flash Brackets are made in the U.S., and are available in dozens of configurations to fit virtually any camera/flash combination.

The new, lightweight Pro-T bracket is unique in that it allows the photographer to use the camera as if no bracket were attached; an increasingly important benefit as more professionals use modern electronic camera systems. When switching from horizontal to vertical or back, the photographer swings the flash arm 90-degrees to keep the flash in the proper orientation.

BARCO MONITOR

photokina — BARCO has revealed the size of things to come with their giant 29" MegaCalibrator monitor for color critical applications. The Mega-Calibrator is one more example of BARCO's ongoing commitment to provide product solutions for the industry's toughest challenges. Based upon the technology and performance of BARCO's new Reference Calibrator, the MegaCalibrator combines the largest high-resolution CRTs available, a maximum resolution of 2000 x 1600 non-interlaced pixels, highly automated convergence controls, and automatic color calibration. This giant

will display multiple full-size pages on a single screen and provides more than twice the viewing area and workspace of a standard 20-inch monitor.

Designed for large-format color critical applications such as electronic prepress, photo re-touching, medical imaging, cartography, CAD/CAM and other resolution-dependent graphics applications, the MegaCalibrator has a horizontal frequency range of 30 to 96 kHz for compatibility with nearly every computer-based graphics system currently in use including Macintosh, PC, Sun, Silicon Graphics and most high-end prepress systems.

Lowepro Orion

photokina — The new Lowepro Orion is a great belt pack that's perfect for skiing, biking and more. The crescent shape hugs your lower back for stability and gives you a place to rest your elbows when shooting at slow shutter speeds. The Orion has a built-in adjustable wastebelt with a quick-release buckle and zippered pockets for keys, identification or coins. The breathable mesh-covered foam lumbar pad wicks away moisture and reduces fatigue. The Orion also comes with an adjustable shoulder strap and bottom straps that hold your tripod or jacket

The exterior fabric is water and wear resistant Endura™ 600 denier nylon, the same super tough mate-



rial used for the famous Lowe Alpine expedition backpacks. Inside, high density closed cell foam provides protection from impact and extreme temperatures.

Bretford Offers Large Screens

photokina — Bretford is making it easier to customize your viewing environment by offering projection screens of different sizes and viewing surfaces. From schools and training facilities, to auditoriums and libraries, Bretford's screens complement the spatial and viewing requirements that differ in every situation.

Bretford offers several screen surfaces. The screen surface is easily determined by the type of projection; matte white and glass beaded for multi-media usage and silver suede for video projection. Bretford's electric screens also feature a unique removable motor module that makes installation, wiring and maintenance easy.

Large-Format Printers

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retrospective celebrating the 100th anniversary of the photographer's birth. The exhibition, which opens in Paris on October 25 and will run until January 29, 1995, is sponsored by the French Ministry of Culture.

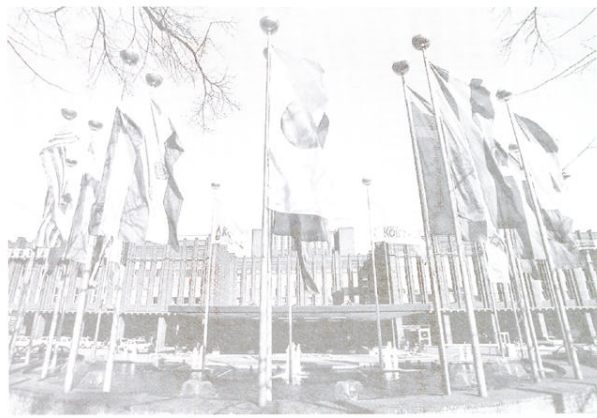
Printed primarily from Kodachrome transparencies taken by Kertész between 1950 and his death, the prints are being made under the direction of Marc Bruhat of the Silages International lab in Paris. The original Kodachromes were scanned and the digital files used to output separation films for making the high-resolution prints.-

The EverColor pigment process (El Dorado Hills, California), which is a high-stability adaptation of the Agfa proof graphic arts proofing process, was used to print an exhibition

of photographs by Mark Klett which opened at the National Museum of American Art in Washington, DC on April 14. The original 4x5 Kodak Vericolor III color negatives were scanned to produce the digital files employed to make the prints. The photographs are now part of the permanent collection of the museum, which is a part of the Smithsonian Institution.

For color labs, the direction is clear. Photographers increasingly will be using their own computers to work on their photographs. What photographers will need, however, are top-quality film processing (-there inevitably will be a further shift toward color negative films as the digital revolution takes hold), high-resolution scans at affordable prices, and a variety of color print output services.

These are very exciting times in photography!



SINAR x 4x5

photokina — With the new Sinar x camera, the renowned Swiss manufacturer of large format cameras meets the needs of photographers who have a modest budget but who still want the satisfaction of using the very best. The Sinar x is a more basic version of top-of-the-line model Sinar p2. The new camera also features the proven 2-point focusing technique. In keeping with the Sinar Modular System, the Sinar x can be upgraded at any time to suit the needs of the photographer. A metering back, for instance, is a great accessory that makes it possible to use a metering probe for exposure measurement into the film

plane.

The new model is a pure 4x5" camera. In order to maintain a favorable cost to performance relationship, the complete respective rear standard of the Sinar p2 must be used for changing formats to 5x7"/13x18 cm or 8x10"/20x25 cm or for attaching a digital back with a CCD array.

The Sinar x is the perfect camera for photographers who work mostly with 35 mm or medium format cameras, but who also want to be well equipped for large format assignments. It is also the right camera for those photographers who love the smooth precision feel of the micrometer drives of Sinar cameras but who could not afford the investment that was required up to now.

3 M PAPER FOR IMAGING

photokina — 3M is to market special poster-grade papers for use on electrostatic color imaging systems. Posters represent up to 90 per cent of the market for many print shops, and the ability to provide suitable paper for color imaging systems makes the new systems a significantly more powerful business tool.

Three new types of electrostatic printing paper are being offered: 3M Scotchprint™ Postergrade 8612 is an exterior wet strength billboard paper, 36, 44 and 54 inches wide, and specifically designed for use on 3M's Scotchprint colour imaging system.

3M Scotchprint Postergrade

8614 is also an exterior grade paper. It is 36 inches wide and specifically designed for Scotchprint 9510 and 9512 printers.

