# E SUBMINIATURE TI

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Supporting 110, 17.5mm, 16mm, 9.5mm, Sem, 4mm, 1mm, Microdot, and Electronic Still Photography.

## Digital Photos as Fuzzy Snapshots

By STEPHEN MANES

What is so strange as a digital bargain? The Epson PhotoPC is being trumpeted as a price breakthrough, the first color digital camera widely available for around \$500. Just like its more expensive competitors, the PhotoPC offers all the photographic features you would expect from a \$15 throwaway camera, with perhaps a tenth of the picture quali-

But speed, not quality, is the point of the digital camera. Digital photography is like Polaroid photography with a Xerox copier and fax machine attached. You need never again endure the grueling journey to the onehour photofinisher who always seems to need half an hour more when you arrive to pick up your prints. Moments after you snap the shutter, you can transmit your photos of earthquake damage to your insurance agent, incorporate your friends' leering mugs into your home page for all the world to laugh at or use retouching software and your ink-jet printer to print hundreds of copies of a faked picture proving you are a personal friend of Oprah's.

Aside from its built-in flash and self-timer, the PhotoPC is photographically not much fancier than George Eastman's Brownie box camera, right down to its fixed-focus nonzoom lens. The camera will accept close-up lenses, but the viewfinder cannot accommodate for them. And the Brownie would work better for shots in quick succession. Once you shoot a picture with the PhotoPC, you must wait for about eight seconds while it processes and compresses the image.

The camera's standard one megabyte of flash memory holds 16 shots with millions of colors at 640 by 480 pixels or 32 at 320 by 240. Optional two- and four-megabyte memory modules, at about \$150 and \$250, allow up to 64 more shots at the higher resolution or 128 at the lower. But although flash memory is nunvolatile and retains information without power, the camera will not let you remove memory modules and replace thom later to retrieve the pictures in

When a standard camera is out of film, you put in a new roll. When a digital camera is full, things are not



so simple. A button on the PhotoPC to sou erase the most recent shots, out when the camera is full of pictures you want, you must connect it to a computer's serial port and send the photos through a cable to its hard

The PhotoPC's Easy Photo software is almost as good as its name. With Windows 95, it installed quickly and found the camera at the COM2 port without help. Its only mistake was in setting the transmission speed to a glacial 9,600 bits per second, rather than the 57,600 it is capable of.

To save time, the software first downloads thumbnail views of the pictures in the camera. Once you choose which images to save, the software does the rest; at the highest speed, each full picture takes less than 10 seconds to travel down the wire. Clicking a button on the screen clears the camera's memory.

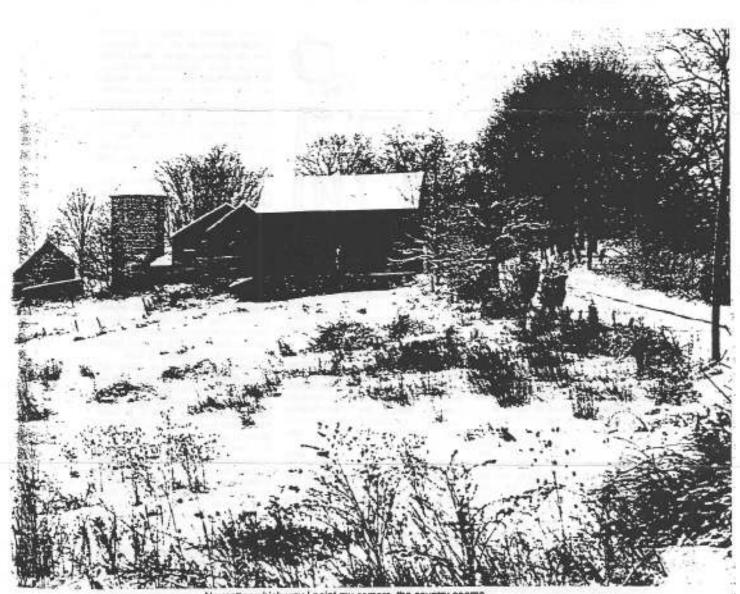
While connected, the camera becomes the computer's slave. Only from the computer can you set the camera's internal clock and the amount of time it will wait before shutting itself off to conserve its four AA batteries. The software can even display a little window on the screen to serve as a viewfinder, with a picture change every three seconds. While the camera is connected, its batteries drain quickly; if you plan to use the computer as a viewfinder regularly, you will probably want the camera's optional AC adapter, even at the price of about \$80.

The Windows software (the camera does not yet work with Macintoshes) makes it easy to perform simple operations on your pictures. You can rotate, crop or resize them, change their brightness, contrast, and color rendition, save the results and copy them into other Windows programs. Programs that embrace the OLE 2.0 standard let you simply drag the photo from Easy Photo into a document and perform further edits right there. As often happens with OLE, odd things may occur, and very, very slowly.

The PhotoPC stores photos in the compressed JPEG format that has become something of a lingua franca on the World Wide Web, which may make it a handy tool for Web page designers. At snapshot sizes and smaller, the camera's pictures can look decent on screen. But fine detail and sharpness are almost always lacking, enlargement makes things worse, and images on paper do not begin to match traditional photographs. This is hardly surprising when professional digital cameras cost more than \$10,000 and just begin to approach the quality of film.

Conventional cameras offer far better lenses that can zoom and focus sharply even on tiny objects. The photo shop may mislay your negative, but once you have it in your hands, you have a sharp image on a physical object rather than a fuzzy one susceptible to obliteration by a single keystroke. And you can still digitize and manipulate a standard photograph. Versatile flatbed color scanners can be had for less than \$500, decent sheet-fed models for even less, and many services will scan photos onto floppy disks and CD-ROM's for you.

If you do a lot of mundane photography destined to appear on screens or in newsletters where time is of the essence and quality is not, a digital camera like the PhotoCD might well come in handy. But like all things digital, cameras are likely to get cheaper and better, with useful new features. For example, Casio's QV-10 models are currently more expensive and offer lower-quality images, but they do let you preview your photos on a built-in color LCD display, delete them randomly and even display them on a standard TV set, where their failings may be less obvious. Still, the laboratory probably has not discarded your last Fun-



No matter which way I point my camera, the country seems photogenic to me. This just happened to be my home ground.

# The Simple Art of 110 manship

The newest format turns pro in this press photographer's hands

By Stuart Davis

We were told that Stuart Davis, a press photographer for the Mortistown (N.J.) Daily Record, is doing 90 percent of his professional picture-taking with 110 cameras. We're bullish on 110, but this seemed just a little optimistic to us. So we asked to see some tear sheets. Not only did Stu Davis produce tear sheets with both black-and-white and R.O.P. color on them, but he brought along a portfolio of personal photographs in 110 black-and-white.

These impressed us so much that you are looking at a selection from them in our first gravure section made from 110 originals. We had come, in effect, to scoff and stayed to pray.

Stuart Davis has no obscure secrets or chemical magic to perform when he shoots and processes his 110 negatives. He describes his approach in the following article—Ed.

Do you remember, not too many years ago, looking into Manhattan's photostore windows and seeing 11x14 prints nestled among the Canon, Leica, and Nikon rangefinder cameras?

I do. And I was taken with the immediacy of the subject and the marvelous rectangular 24x36-mm frame proportions (how I hated the restricting
2½-in.-square negative!). Each enlargement had its own contact print glued to
the bottom face of the print, reassuring
the world that quality really could be
extracted from such insignificant
sources.

At the time, I was a self-taught photographer, educated as a draftsman but really turned on to making pictures for a living. Except that I hated square-format pictures.

My first professional press job came after I wrote to the Bergen (N.J.) Record. To get it, I just wrote a letter. I was in the right place at the right time. It was that simple for me to get started.

At the Bergen Record I worked with 4x5. I did use 35-mm, too. But marginally, because the fellow I worked for didn't particularly care for its use on news assignments. I used it only for special features, stories I would dream up on my own.

Even today, after years of newspaper picture-making, I don't think of myself as a press photographer—chasing fires and accidents and such. I really think



Armen Lee Davis

of myself as an illustrator. It's feature work—meeting people one-to-one that turns me on. But, of course, my job today for the Morristown Daily Record calls for both kinds of work.

But there is just no other job in the world that allows me to be on an aircraft carrier in the morning and be talking to a playwright in the afternoon. And that's what makes it exciting. I feel myself to be really lucky to be able to do this kind of thing.

But, having spent 28 years making pictures as a journalist, using cameras of many formats, I'm at a point where I want to simplify my methods and equipment for both my professional and recreational photography. And to me, the 110 concept, like the 35-mm concept that wooed me from 2½-in.-square cameras, looked like a good bet. Especially since it now has the big, fat bonus of modern electronic technology going for it.

Understand, the larger formats had handled my picture needs with great precision and quality. But I had this thing about throwing all the weight and volume out of my camera bag and starting again.

I'm still using two formats for my professional work, of course. Some news shots—one with four people lined up for some reason, for instance—call for bouncelight off the ceiling. That kind of news photo is not a 110 shot. For my purposes, that calls for a 35-mm camera. But for most of my feature pictures, the little 110s are fine.

I started using 110 about 1976. I was free-lancing at the time. My parents had come up from Florida and I wanted to make some shots of them. For the purpose, the little format (shoot it and send it to Kodak for processing) seemed like a nice, easy approach. So I bought a Kodak pocket Instamatic Model 50. The pictures were fine, but I shot color and got a little bored with just shooting and not doing the darkroom follow-through myself.

Then I moved along to the Minolta 110 zoom and the Canon ED, and now I have the Pentax System 10 SLR with the interchangeable lenses.

Each has its own virtues for certain pictures, so I still use them all at one time or another. The SLR is a programmed automatic and there are times when I need control of the diaphragm to stop down for more depth and edge sharpness. Then I use one of the others on a tripod.



Double-page spreed from Daily Record has six 110 photos by author, Left photo is in color, made from Ektachrome side processed in paper's photographic lab.

Most of the people I photograph get a big kick out of my using a tiny camera. Other pros generally groan when they see I'm using it seriously. In fact, I remember the day I first picked a 110 up in a camera store, I giggled!

The truth is that, as a working photographer, I really got fed up carrying five lenses, two 35-mm SLR bodies, motors, flash, filters, batteries, and sundry accessories. And I must say, I've had no opposition from my editor to my using 110 cameras. He looks down his nose at me, maybe. But my results speak for themselves. Opposition did come from the stereo department, though. The problem is that they have a 50-mm lens and it isn't short enough to give them the convenience they want. As soon as we're able to adapt a 28-mm lens to the machine, there'll be no problem anymore.

My paper is now using about 13 color shots a week—page one every day, plus some of the style pages that we have. And we have two magazines: one on Friday, one on Sunday, which use color.

I shoot color slides (Ektachrome 64) for this and separations are made for reproduction. Black-and-white material, however, I process myself. My feeling is, if I start it, I want to finish it.

I don't make 8x10 prints for the paper because it isn't necessary. Most of my black-and-white professional prints are four or five inches on the short side—which is ample for our purpose.

I had been using the 110 format for several years before joining the Daily

## 110 manship

Record, so the technical problems were pretty much solved in advance.

My early lab equipment included several discarded tomato-paste cans to which I taped the film, emulsion side out, for processing. This worked nicely until rust forced the purchase of stainless-steel reels to use in my tanks. It didn't take long before I was able to lock-in time/temperature for the contrast range I found printable.

No zone or modified-zone system here. Exposures are computerized. And, in that hands-off condition, preexposure thinking is necessary.

Working with 110 requires a slightly altered mental set. That means, when shooting anything that is not frontlighted, pause. Think about what you are about to do. Visualize the finished print. And then shoot.

Back-lighted scenes can work very well with automatic exposure if you first think about what you're doing. A slightto-moderate push in the developer is often called for, but treat that with care. Graininess may become a problem. I've been using the 110 format for about five years. Until recently it's been one lens-one camera (at any one time). The discipline of seeing and reacting in this singular mode is marvelous. Naturally, this simplicity must—I repeat, must—overflow into the darkroom.

And now I'm going to give you the secret of all life—and your craft. It should sit up near the top of your priorities. LOVE. That's it! Love with passion and then spend all your hours pounding, screaming, cursing, drinking, sweating, and caressing your talent, thanking your god for your damn good fortune of being a participant in this greatest of crafts.

Practice simplicity in shooting and simplicity in the darkroom by all means. Pick a film (for 110 black-andwhite you have only Verichrome Pan), pick a developer, pick a paper. And for the rest of your long life you will never exceed the picture possibilities of those materials.

My processing techniques are embarassingly simple. No magic; nothing up my sleeve.

I learned early to wind the film all the way to the end before removing it for processing, even though it meant losing some unexposed frames.

Then, with the film completely in the larger, take-up compartment (in darkness, of course), I grab that compartment in my left hand. With the other compartment in my right hand and my right thumb pressing against the backing paper in the film channel of the cartridge, I snap /continued

the channel and discard the empty compartment.

Then, by prying up on the upper edge of the broken channel left attached to the take-up compartment, I flip off the top of the compartment.

This leaves the exposed film and backing paper available for easy removal and separation. The film is loaded into the reel like any other roll of film.

For development, I've used D-76 for years and see no reason to change. I ready it, and all other chemicals, to 75 F. Development is for 2½ minutes in stock-strength D-76, then a plain water stop bath, Kodak fixer, a water wash, and wetting-bath dunk complete the run. The short development helps keep wet time at a minimum.

However, developer time can vary from two-and-a-half to three minutes, depending on contrast needs. I agitate the developer every 30 sec, as recommended by Kodak. The stop bath is never more than five sec, and the fixer is used for twice the time it takes to clear the film. Every photo 'how-to' book you've read will tell you this.

The real secret, which every firstclass craftsman practices is consistency. Be consistent in your simplicity; do the same thing every time until there are no surprises left. Only then can you afford to alter your processing as needed.

My wrap-up to the processing of 110 is a very gentle wipe-down of the wet film with Photo Wipes. However, I am blessed with grit-free water. If you have even a suspicion of grit, avoid wiping the wet film. Gritty water can produce scratches that can make a grown man cry real tears.

After the wipe-down, I reload the film into the reel emulsion side out. This is important, because it prevents the film from taking a strong curl when I fan-dry it with cool air.

Now let's consider the print. For years I've used Kodak Polycontrast fiber-base paper, F surface, glossy dried matte, for all my printing needs. (Recently I've been trying Ilford resin-coated Pearl surface and must say I'm pleased.) Dektol, LPD, or Ilford paper developer work equally well for me. Temperatures vary a few degrees season to season, but I keep them close to 70 F.

I control developer contrast range by dilution. Normal-contrast dilution for Dektol is 1:2 (developer:water). Problem negatives might call for full stockstrength or 1:1 dilution.

I've been a firm believer in letting an exposed print come up gradually, in anywhere from two to three minutes in the developer. That's with constant tray agitation and the safelight above the tray turned off for the first minute and a half. (I like my safelights brighter than most, so graying down is a threat for me.) When making display prints, rather than work prints, I always use fresh hypo and frequent agitation. Wash time is short, followed by hypo eliminator with another short wash and then drum drying if I'm using fiberbase paper, air drying for RC.

My early years on the Bergen Record in Hackensack, N.J., were devoted to the Speed Graphic (4x5) and Omega enlargers. I still like the big Omega and use it for all my 110 printing. A 50-mm lens provides a maximum print size of 7x9 in., which suits my needs nicely. I don't particularly like big prints, so I haven't found the 50-mm limiting to print size from 110 negatives.

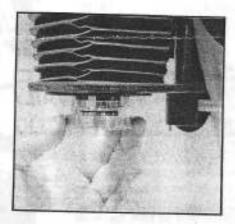
Of course, with the lamp housing at the extreme end of the enlarger post, like a flag on a pole, vibration might seem to be a potential problem. But the mass of metal and glass dampens vibrations quickly. Exposure times are fairly long, but results are so good I am loath to make unnecessary changes. Smaller print sizes, I might add, are cheaper to frame, carry, and, store away.

So, what is this really all about—
making 'serious' photos with such a
small negative? Well, for me this is all
just a prelude for the last, incredible
photograph, a summation of my craft/
self before I leave this reality for the
next, walking down some yellow-brick
road (with print under arm), yelling for
Smith, Weston, et al, to tell them there
is a new boy on the block.

Tip 18—I'll wager that every so often you need an image a wee bit larger than you can get with the head at the top of the enlarger column—and it hardly seems worth shifting the instrument for floor prejection just to get an extra inch or so of belout.

Ah yes, this is when a wice angle enlarging lens would be attractive except for its price and the fact that we can live without it most of the time.

To the rescue, a short term (read that as cheap) solution: the close-up lens. Just as it does a yoeman's job on a camera in place



of a macro lens, a +3 or +4 lens under the enlarger optic will shorten its effective focal length and provide a larger projected image.

For example, if at a given height one border of the uncropped image measures 534" on your easel, it will increase to 8" with a +4 lens in place and at another height, 7½" will increase to a little over 11".

A close-up lens on a camera doesn't change the effective f/stop, but light going into a lens is not the same as light coming out of one. Since a fixed amount of light comes out of the enlarger lens, the larger the projection, the less light there is to share among each square inch of paper. Thus, if you put a portrait lens on your enlarger, you will not only have to refocus but you will have to make a new set of test strips. Use f/8 or a smaller opening if you are printing the full negative.

If you cannot get a filter holder that fits your enlarger lens, attach the portrait lens with tape. Dear Al-

Here's a copy of "Minox Memo". Do any current or rerun series feature subminiature cameras? I missed "Treasure" (too young).

ROOKIE in NY

Dear Mr. R

"The Nightstalker" reruns are our favorite. See Warner Channel 60, The Sci-Fi Channel. Bunky shoots Minotta-16 and a Rollei-16 with the original flash. (It took Series 5 bulbs.) Occasionally he makes 8x10 prints tool.

Some current listings:

SHINING THROUGH \*\* (32) Michael Douglas, Melarie Griffith, Sectulary turns spy for her lover in WWII Germany, (2:12) R' (A. L. N. V) MAX Late Frit/Early Set, 3 AM 15761732 (CC)

THE FALCON & THE SNOWMAN \*\*
('85) Timothy Huttors Span Penn, Seminary dropout and cocaine-hocked buddy self U.S. secrets to Soviets (2:11) 'R' (A, L, V) BRAVO Thu. 7 PM \$22153; Late Thu /Early Fri. 12:20 A/111802

EYE OF THE NEEDLE \*\*\* (81) Donald Sutherland, Kate Nelfigan, Nazi D-Day spy seduces wife of crippled pilot. (1:52) 'R' (A, N, V) TBS Tue, 11 PM trate)

PICKUP ON SOUTH STREET \*\*\*
(\*53, B&W) Richard Widmark, Jean Peters. Spy and FB hart ther who took micraftim from woman's purse. (1:20) **TMC**Wed 1:55 PM 783/161

"SHINING.." Melanie uses a 1932 Minifex (13 x 18mm format on 18mm single-perf film) We learned recently that this is a true story.

"FALCON..." Acclaimed for the sheer volume of subminiatures shown: Minox, Kiev, and more. "EYE..." A genuine thriller. The collapsible Leica is nice surprise in D-Day era pocketables. "PICKUP..." Anyone catch this?

(Re: S.T. #93 - 94)

Dear Al Doyle,

Thanks for the MP reprint on Yashica's Samurai cameras. When they were introduced I was amazed at the R& D plus mfg. costs they must have taken. They were too big, too heavy, and too costly. 3 strikes and you're out.

Now that Minox is a division of Leica, perhaps we can look for new Minox models in addition of their EC, LX, TLX (titanium), W. Zapp LX, and compact full frame 35mm. A truly compact half-



### MINOX MEMO

GRATIS TO REGISTERED OWNERS OF THE FABULOUS MINOX CAMERA AND ITS AMAZING ACCESSORIES, PUBLISHED BY MINOX PROCESSING LABORATORIES, P.O. BOX 94, FOREST HILLS 75, N. Y.

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SPRING/1960

#### TV SERIES FEATURES MINOX







The ultra-miniature Minox camera played an exciting role during the recent filming of Bill Burrud Productions "Treasure" television series. The "Treasure" series is based on actual adventurous searches for hidden, buried or lost treasures . . . and the episode featuring the Minox involved the exposure of opium traffic in San Francisco's Chinatown. The Minox was used by the cast as an aid to their undercover operations, and by newspaper men and members of the Narcotics Bureau who obtained photographic evidence without being detected.

This series will be telecast in many cities throughout the country in the near future. It is titled "Curse of the Poppy Drug," produced by and starring Leland W. Hansen, Photos by Jeanne Hansen.

frame 35mm would not be out of character, and how about a BIG batch of AX??

> Bob Dome Aberdeen, WA.

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FOR SALE Minox Model II enlarger & Minox tank. \$225 for both. Will deliver within 100 mi. Larry Rees, Pleasanton, CA. (510) 484-3288. FOR SALE Minicord. Black w/dual cassette, \$300. Herbert Meier. (214) 890-0621

FOR SALE Teleca binocular/camera f/4.5 90mm \$925 Dan Morgan. (915) 584-8584

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