Technology is fast reeling in another of the stalwarts of 20th century media production — photographic film looks set to join hot metal and the typewriter on the shelves of the Eastern Star newspaper museum. As digital photography comes of age, professional photographer Montgomery Cooper visited Europe's largest photographic trade fair Photokina in Cologne, Germany. Photokina attracts more than one and a half million visitors. This year several conferences on digital photography and multimedia ran simultaneously.

The photographic system press photographers grew up with is approaching obsolescence — those happy moments fighting film jammed in the sprockets of an single lens reflex soon to be a distant memory. For the future is digital.

Despite the fact that the "experts" at Photokina kept saying digital cameras won't kill film it is difficult to see it survive in professional press photography given the advances in this latest technology.

As the Vice President of Kodak, Richard Pignataro said at Photokina: "We are looking into a new age of technological innovation. Options seem to be appearing daily at every part of the imaging chain — capture, storage, manipulation and transmission."

Associated Press, for example, have been closely involved in the development of a digital camera using the shell of a professional camera. Already used by more than 200 AP photographers worldwide, the professional Nikon N90, with the latest motor drive and light meter, was designed for photojournalists working against impossible deadlines.

A ssociated Press and Kodak are the masterminds behind this innovative project. The N90 is the first electronic camera capable of handling two frames per second, logging them on removable storage drives which can hold up to 75 images.

There's even a built-in microphone to allow voice "captions" or note-taking during shooting.

The camera operation is almost as smooth as the pep talk we got in Cologne. The photographer just snaps the drive, which can best be described as a scaled-down version of the hard drive we're all familiar with on personal computers, from the base of the camera and connects it to another major development, the Photolynx, which is a portable system for field transmission.

No longer the endless and recurring nightmare of hiding the film cassette in your sock, smuggling the negatives past security police, or "souping" them yourself in an anonymous hotel bathroom—not with digital transmissions.

The digital images from a camera such as the N90 are simply loaded into the Photolynx system, which is the size of a notebook computer, but complete with Photoshop to view the images. From there it is a matter of minutes to edit and transmit images, literally around the world.

Using a portable cellular phone and satellite dish, the picture desk can have an image from you, the sunburnt photographer, in less than 20 minutes.

A second camera (also a Nikon) is one developed together with Fujifilm, the E2 and E2s. Basically these are fully

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self-contained digital cameras with a memory card data storage system.

Of course, there are other systems expanding the amateur market, such as Agfa and the familiar faces of digital cameras with no film, or backs, just direct to computers, such as the Ilford versions, and the Leaf systems. With these cameras the images appear on the screen, ready for captioning, manipulation and then development to hard copy.

But the world of digital cameras in the field is not just restricted to the upmarket AP operation (they own the satellite)

Photographers elsewhere are experimenting and a National Press Photographers of America crew recently scanned and transmitted an entire picture feature from the back of a car in a parking lot. After the assignment — a tobacco auction — six rolls of film were processed at a mini-lab.

The team scanned the images with a Polaroid scanner powered by a car cigarette lighter and then transmitted them back to the electronic newsroom using a powerbook computer and Photoshop.

All images were transmitted (along with the story) over a cellular phone — the last one while driving!

Even a shrimp boat has been used re cently as a picture base. Using a Kodak DCS 420, a powerbook and a cellular telephone, photographers were able to edit and transmit images from four nautical miles out to sea back to their newsroom.

To give film its due, the frontiers of film "development" are expanding as well and new colour films would seem to be the end of a very long nightmare for photographers. Ektapress Gold II Multispeed film, for example, has an exposure range of ASA 100 to ASA 1000, liberating most press photographers from carrying a variety of different films.

The photographer only adjusts his camera setting for a different lighting condition. Balanced for daylight, it seems fairly tolerant of tungsten and neon, as I tested five films during Photokina and found hardly a trace of green skin.

You are not supposed to under or overexpose but I did so deliberately — and the results up to one stop under-or-over were quite acceptable. Cer-

tainly for the low resolution required for hard copy or for newsprint.

When asked if this film was developed to counter the awesome developments in the digital world, both the Kodak management at the Fair and the AP spokesman said that this was an extension of their film plans. Perhaps multispeed film could be seen as a counterpoint to the hard drive in the digital camera?

Digital photography, of course, raises ethical issues — with the Photolynx the camera definitely can be made to lie. The system allows the stressed field photographer huge leeway with the image — to the extent of being able to manipulate the image, change the colours, even add subjects. An AP spokesman at the Photokina admitted the potential problem saying some photographers are tempted to manipulate the images before transmitting.

But, he hastened to add, AP doesn't encourage the practice, if only because rushed photographers may edit inaccurately.

The reality is that, in an increasingly shrinking media world, hard copy still images just won't be able to compete

with the speed of digital transmission. And the speed is not bought at the cost of the image—there is an apparent lack of grain in digital imaging. The images can be blown up without noticeable loss of definition.

You would have to go to the extremes of using very low ASA black and white film (25-50 ASA), fine grain developer and very careful zone system printing, to get a result that does compare in quality.

Digital photography has become so powerful in its visible advantages even the most traditional press photographer should not be able to resist it. If they do, they face the same future as dinosaurs.

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