



## Fade to black

By Charles Wright

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[LiveWire](#)

Kodak is fighting a battle with the rest of the photography industry over the longevity of its inkjet printing papers in an exchange that highlights the difficulties amateur photographers face in trying to work out whether the images they produce on inkjet printers will last.

The shots are largely being fired at the website of [Wilhelm Imaging Research](#), an authority on stability and preservation of traditional and digital colour photographs.

Employed by companies such as Epson and Hewlett-Packard, and formerly Canon, to gauge the effective lives of their papers, inks and printing techniques, Wilhelm has produced the de facto standards for measuring how long photographic prints will withstand fading.

It standardises its tests on a light source of 450 lux - the equivalent of a brightly lit room - for 12 hours a day, or a closely related 500 lux for 10 hours a day. Canon, Epson and HP observe the same standards, but Kodak advertises its claims on test conditions of only 120 lux - scarcely optimum viewing conditions for a print - for 12 hours a day.

Industry publications that have taken up the fight against Kodak say the company is engaged in a cynical exercise to turn substandard performance into what looks like industry-leading benchmarks.

Wilhelm founder and chief executive Henry Wilhelm has argued that if Kodak's competitors were satisfied with the same standards, they could increase their longevity claims by 3.75 times.

But the situation worsened recently, with Kodak's claim that prints on its Ultima Picture Paper from HP PhotoSmart printers had been tested to last 162 years - nearly 15 times longer than the Wilhelm test predicted.

Critics say Kodak's improved performance has more to do with it using UV filtered lamps in lower relative humidity and a different starting density for measurements.

Agfa has also been accused of adopting similar rules to make its products perform better by comparison with competitors.

The situation isn't new. Kodak has fought a long-standing battle against Wilhelm Research after its testing proved that Fuji photo lab prints had vastly superior longevity than Kodak's.

The latest controversy indicates the lengths to which manufacturers are prepared to go - or appear to go - to produce longer-lasting images. They've succeeded to the extent that the best inkjet technologies now outlast the performance of the traditional colour photographic process.

They also indicate that if you want them to last longer, you need to take more care than simply sticking them on your refrigerator door, which is where, according to US research, 40 per cent of photographic prints end up.



The Pentax Optio 750Z.

Prints are under attack from ultra-violet light and gases, including ozone, which produce fading. Different inks and papers, however, have varying tolerances to fading.

HP's recently released Vivera inks are predicted to withstand fading for up to [108] years when printed with six or eightcolour cartridges on HP's premium papers.

The same inks, printed on the same paper using only three-colour cartridges, were less stable but are still predicted to last 82 years.

Different papers also affect the long-term result. Microporous paper is fast-drying and gives outstanding colour definition, particularly for glossy prints. The speed with which it can be printed and handled is impressive in the Canon system. Microporous paper can be identified by touch. Its highly absorbent surface "squeaks" when you rub your finger over it."

"Swellable" paper, the type HP favours, takes much longer to dry. But according to Wilhelm, the ink has to some extent been encapsulated into the paper, giving it greater protection from the gases that cause fading.

If you're primarily interested in handing around small prints, glossy paper and dye-sub printers are a better bet, even if you have to reprint the occasional image in six or seven years.

For images you want to preserve, semi-gloss or lustre papers may be a better choice, particularly when coupled with pigment inks.

That could send you on a hunt through manufacturers' specifications to find the best performers. In the increasingly popular 6 x 4 printer category, Wilhelm's statistics provide [some interesting leads](#).

Epson's extraordinary Personal PictureMate Personal Photo Lab emerges well from the test. It uses pigment inks, which have better longevity than dye-based inks.

Using Epson ink and paper, prints from the PictureMate are predicted to last 104 years, compared with only seven for the output of Canon's CP-200, CP-220 and CP0330 printers, which produce dye-sub prints to a similar format.

The Epson printer is comparatively slow but the print quality is outstanding. It comes in a small package and connects directly to cameras, media cards and external storage devices. It's simple to operate and is Windows and Mac compatible.

Whichever printer you use, Wilhelm's advice for maximum print life is to buy premium products, both paper and inks.

And if you want prints to last longer, put them under glass or a light-resistant filter, or store them in a dark drawer - where most seem to end up.

## Review

### Pentax Optio 750Z digital camera

**Price:** \$995

**Rating:** \* \* \* \* 1/2

**The lowdown:** The Pentax Optio 750Z is a serious camera for serious photographers. Not only does it have all the desirable features including a good optical viewfinder and complete manual override of all settings, it actually looks like a camera.

The retro design will appeal to anybody old enough to hanker for those classic German cameras. The body even sports a faux leather insert around the lens surrounded by a thin chrome strip signalling that this is a real camera, not a gadget.

The control layout is exceptionally good with every important function (except ISO settings) accessible without going into menus. The front lever on the mode knob is clever - in capture mode it gives immediate control over exposure compensation.

The seven megapixel sensor and the 37-187mm (film equivalent) zoom lens combine with a good auto white balance to produce photos that are sharp, accurately coloured and beautifully exposed.

The macro mode is also particularly good.

**Like this:** The viewfinder has a diopter adjustment for spectacle wearers. Metering and focusing modes are user-selectable. The camera has a bulk and heft that make it feel just right in the hand. It also has a swivelling LCD screen.

**Dislike that:** It is quibbling, but a camera of this quality should come with RAW capture mode. Still, the TIFF format gives outstanding image quality.

**Parting shot:** This model takes 3D photos - sort of. The subject has to be static. It's a bit of fun but not terribly useful. However, this is a highly recommended camera. It is comparable with the excellent Canon G6, which costs \$200 more. But the Pentax wins the beauty competition hands down. - **Terry Lane**

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