

Family History Online

This month we help choose a digital camera and explore their uses for family historians. We also review the latest version of the freeware *Personal Ancestral File*, explore GENUKI, explain how you can add a free search engine to your website and test 3 *RootsMagic* add-ons.

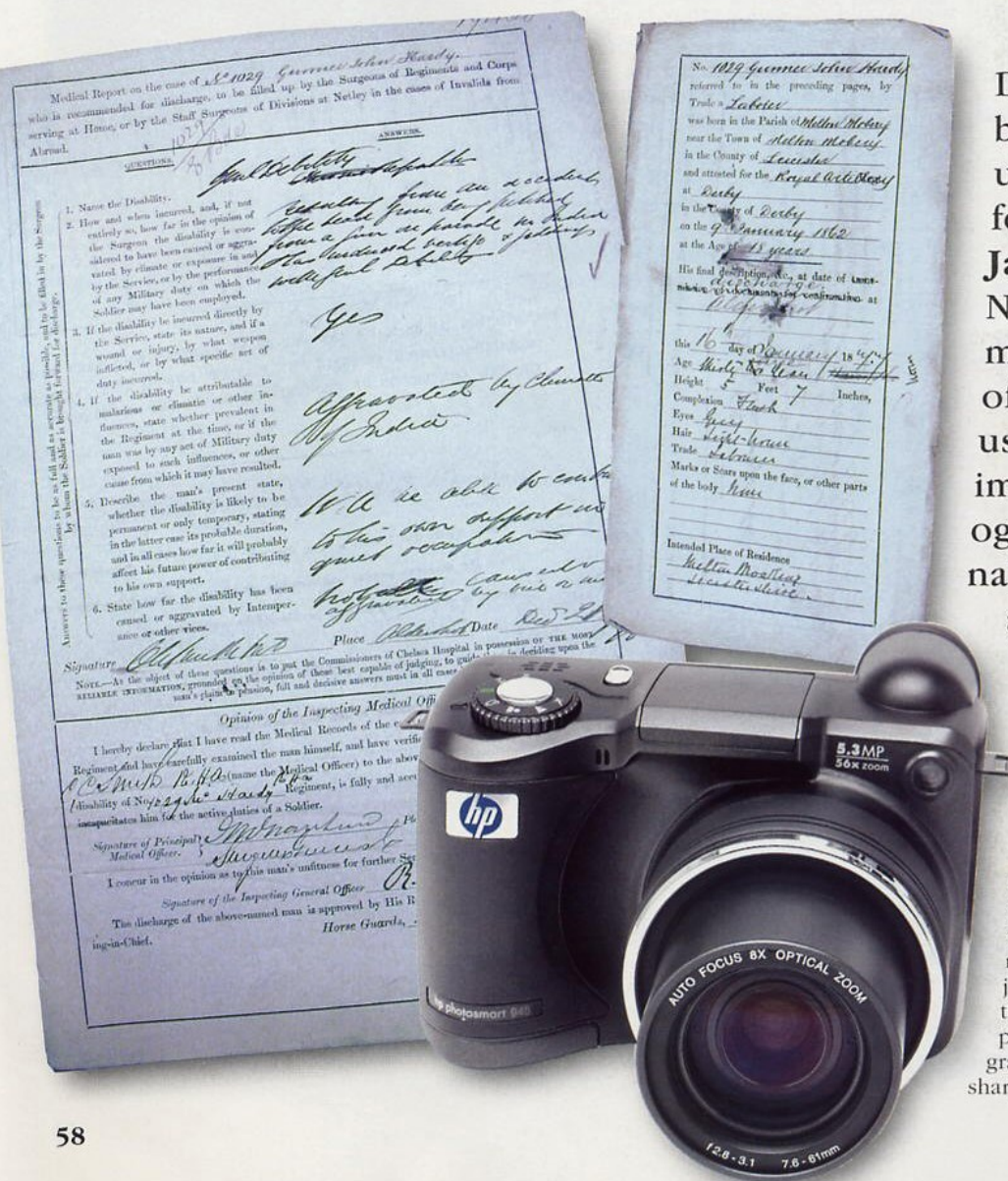
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Picture Perfect an introduction to digital cameras

Digital cameras are becoming an increasingly useful tool in the hunt for our ancestors writes **James Taylor**. The National Archives and many other local record offices now permit their use, and thanks to rapid improvements in technology, photographing original documents represents a viable alternative to photocopying, or laborious note taking.

Why would you want one? Digital cameras can do almost everything ordinary film cameras can do, plus a few tricks of their own. There's no expensive film, no loading and no processing to worry about. Most importantly, with many models you can view the picture you've just taken on the camera's LCD screen. Once the image has been transferred to your computer, you can manipulate it using your graphics software — lighten, darken, rotate, sharpen, invert, zoom etc.



Camera types

Most digital cameras fall into one of three categories:

VGA Low-resolution (640 by 480 pixels) point-and-shoot models have fixed-focus, are automatic-only and have no exposure control. Their pictures are fine for viewing on your computer or publishing on the web, but don't expect good prints.

Cost: £15+



SLR These use a prism and a mirror, so the view in the viewfinder is exactly the same as that through the lens. SLR cameras are available with resolutions of up to 6 megapixels and comprehensive focusing and exposure controls. They are larger with more fea-

tures and are the most useful type for family historians.

Cost: £150+

Compact These can have a resolution ranging from 1 to 3 million effective pixels. They usually offer some form of focusing and exposure control but can be set to point-and-shoot. They are often small enough to carry in a shirt pocket or purse.

Cost: £40+



Buying guide

Criteria to help you choose your digital camera



Pixels/Resolution

Digital photographs are made up of a lattice of thousands of tiny squares called pixels. More pixels mean more detail and sharper edges. Megapixels are also used to specify the resolution of a digital camera, using what

is called the number of 'effective pixels'. The higher the number, the better the picture.

Zoom Most genealogists will want a zoom lens in order to re-frame pictures without having to change position. Wide-angle lenses are best for photographing buildings, landscapes and interiors. Telephoto lenses are best for portraits and some close-ups, but are more likely to produce blur.

Variable focus Most cameras come with either fixed or automatically variable focus. With some you can lock focus on a part of the image then re-compose without losing focus. Better cameras give you the option of full manual control over focus.

Manual exposure Better cameras give you full manual control of aperture and shutter speed separately. Exposure control lets you increase or decrease the exposure, lightening dark scenes and darkening light ones. In between are cameras with aperture and shutter-priority settings — you can control depth of field, i.e. how much is in sharp focus. With shutter-priority you can 'freeze' or exaggerate movement.

Memory This is another important issue for family historians. Digital cameras have their own built-in memory, but better models also accept 'memory cards' — removable cards which increase the number of images that can be taken before you need to download and delete.

Card capacity is usually expressed in megabytes (Mb). You'll probably get only a low-capacity card with the camera so budget to buy a bigger one soon. Transferring your pictures from the card to your computer is done either by using a cable connection or by using a card reader connected to your computer.

Picture quality In general, the better cameras give you more control and allow you to alter the quality/resolution of the images you take. The better the quality, the higher the resolution, the bigger the image file and the fewer you will be able to fit on the camera. Being able to alter the settings is useful as it means you can take high-resolution pictures of documents, then switch to lower quality if you've got some less important shots you want to squeeze in.



Viewfinders/Preview screens All but the very basic digital cameras offer a preview screen or monitor. These are small LCD displays, usually in colour, on the back of the camera. The advantage of a preview screen is that what you see is what you'll get. Like an SLR camera, the image is taken directly from the image

TIPS

Image quality If it's not vital that the images are crystal clear (if you only plan to look at them on your computer) have the camera set to its lower quality setting. This will increase capacity.

Before you leave Call the record office you plan to visit to check they allow the use of digital cameras.

Focus! When using your camera to photograph documents, make sure you focus carefully. The photograph may appear sharp on the camera's tiny LCD screen, but will often turn out to be quite blurred when you open it up on your desktop computer.

Which should I choose? It might be best to choose a mid range camera that offers you manual control over focus, exposure and zoom so you can take clear, close-up images of your documents.

Printing out As a rough guide: 3 or 4 megapixel images give you good prints of up to 8x10 inches.

Creative control Some cameras also have 'creative' controls that let you take pictures in black-and-white, sepia or with a red, green or blue cast, but you're probably better off altering the image file on your home computer.

sensor, which means that you can compose the picture on the screen before taking it. You can also review pictures you took earlier. Some preview screens show just one image, others show thumbnails of all pictures.

An optical viewfinder is a good thing to have as well, because when taking pictures using the preview screen, you have to hold the camera at arm's length, which encourages camera shake. This can be avoided using the traditional viewfinder. Also, a preview screen takes a lot of battery power, so it's good to have the option of switching it off and using the optical viewfinder alone.

Flash This is important as archives that allow cameras do NOT permit flash photography. Auto-flash fires automatically if there isn't enough light, so you need to be able to turn off this feature once inside the record office.

Other features to consider include automatic red-eye reduction, continuous shutter operation, fast start-up, microphone and speaker, batteries and recharge dock (right), tripod socket, audio-visual output to your television, webcam capability and night portraiture (flash fires to expose foreground and shutter stays open to expose background).

Camera printers Increasingly, digital cameras are now sold with their own small printers, which you can use to print out photo-quality prints of the images you take. The paper is expensive but, unlike traditional film development, you won't need to print out an entire film — just the images that worked. However, photo-quality printer is NOT required. You can print out any picture you take (in colour or black-and-white) using your normal printer and paper and still achieve very favourable results.



Storing your images

Image files will rapidly clog up your hard drive if allowed to accumulate. You should make it a policy that you archive your digital photographs on some kind of detachable storage media. (Although it's sometimes handy to keep low quality, or thumbnail versions of the pictures on your harddrive for reference.) Old fashioned floppy disks are not particularly suitable for the job, simply because they only have room for a handful of high resolution images. However, ZIP-disks, CD-Rs or DVD-Rs may be enough to hold your entire picture collection.

CD-Rs are probably the most cost effective solution at present. These hold 650Mb of data, which if you consider that an average sized, high resolution JPEG takes up 2.3Mb of space, gives you plenty of storage for not much money. However, CD-Rs can only be used once, and then can never be altered. This makes them absolutely ideal if you want to archive a large picture collection in one go. But if you plan to keep adding images on a regular basis, it might be best to invest in a re-writable CD (CD-RW).

More and more computers now come with DVD readers and writers, meaning you can store your images on DVD. These are more expensive, but much higher capacity than CD-Rs. And again you can buy more costly re-writable versions. It won't be long

JARGON BUSTER

Interpolated Resolution Some manufacturers use interpolated resolution figures. Whereas optical resolution is based on the physical number of pixels, interpolation inserts 'virtual' pixels between the physical ones. These add no new information to the image, although they do let you make bigger prints.

Camera components Both film and digital cameras have the same essential components: a lens, an aperture and a shutter. The lens focuses light from the scene being photographed to create the image. Lenses come as either fixed or variable (zoom) focal length. The aperture, which can be made smaller or larger, controls the amount of light entering the camera. The shutter can be opened or closed to control the length of time the light enters the camera.

SLR Single lens reflex.

before we're all using DVDs, but in the meantime, CDs are quite sufficient.

If your computer came with a CD or DVD-writer you will already have the software to get going with image archiving. If you do not have one, you can purchase external CD/DVD-drives which simply plug in to your computer's USB socket. Most come bundled with all the CD/DVD authoring software you will need and are fairly simple to set up and use. Look out for the figures on the front of the drives. A 16x write speed, for example, is fairly standard and will copy images to CD satisfyingly quickly.

A good CD writer should cost about £100+, a DVD writer a little more, but prices are coming down all the time. Spend some time surfing some UK shopping sites such as kelkoo.co.uk or ebay.co.uk, to get an idea of what's available.

Above all, sort out some kind of system of backing up your pictures, sooner rather than later. If your computer develops a fault, it could mean another trip to the record office!

These pictures were taken indoors, with no flash, using a Canon Powershot. The images have not been digitally altered, but were taken in a well lit room. If your pictures come out too dark to read, it should still be possible to lighten them using even basic graphics software.

