

# Nikon D90

Though compact, light and ideal for travel, with 12MP the Nikon D90 offers better overall image quality than does the D80 with 10MP, and brings a full set of enhancements into the bargain, as **David Kilpatrick** explains

Below: Nikon D90 with 18-105mm VR lens.



**T**he biggest differences between the Nikon D80 and its upgrade, the D90, are the inclusion of Live View, more or less as found in the D300, and 720p HD video with mono microphone. To make both of these functions far more practical in everyday use, the D90 is sold in kit form with a new Nikon 18-105mm f/3.5-5.6 VR stabilised lens.

Perhaps related to the video playback, the deep and rich menu system of the D90 includes a method for assembling a Pictmotion show, sequencing animated stills in-camera. Like the HD video, this can be streamed out to an HDMI equipped TV or monitor, and you can still do the usual Slide Show mode without the creative control and built-in music library of Pictmotion.

It also has a dedicated port for the Nikon GPS data module, which fits into the hot-shoe, and can embed positional references straight into pictures as they are taken, real time. This approach is better than the separate GPS recorder methods, which can suffer from time setting differences between recorder and camera, as well as the usual 10 metres or worse native inaccuracy of the GPS receiver. No matter whether your camera has been set one minute out, or even to the wrong time zone, you will always get the correct data in your files.

Featuring a decent glass prism finder, an

anti-dust sensor shake system, sequence shooting up to 4.5fps, and improved dynamic range and noise reduction (which can also be turned off), the D90 also has every single menu item introduced since the D80, including Active D-Lighting and post-process D-Lighting, double and overlay exposures, red eye reduction, automatic distortion removal for the 10.5mm fisheye, selectable distortion correction for other lenses, and many others.

It does not have adjustable AF, but the larger 3ins 920,000 pixel LCD screen makes checking focus much better than on the D80. Live View permits manual or contrast detect focusing and, in Live off-sensor AF mode, has Face Detection.

In use, I found the D90 to be about one stop better in terms of picture quality for ISO, relative to the D80. I would also say it is better than the D300, which has an earlier version of the Sony CMOS sensor now adapted for video in the D90. This adaptation has clearly involved improving noise levels and speed all round.

There are some small warnings in the manual about shooting too much video (it is limited to 5min clips, but that is a long time in the movie world) or doing too much Live View, or expecting performance in very hot conditions. The camera will shut itself off if it detects too high an ambient temperature. This could be a negative point for anyone wanting to trek across the

Above and right: Nikon Capture NX, or the camera itself, will correct a 10.5mm shot to be rectilinear - the true wide angle version is processed here by NX directly from an in-camera Jpeg

Sahara, but as long as you are sensible and don't leave it in the sun on a café table, you'll never know this warning is hiding in the small print.

## 18-105mm Nikkor

The new 18-105mm Nikkor is a gem. It seems just as good as the 16-85mm, though it is very different in build quality (plastic bayonet mount) and price (£199 or even less when included in the kit). Though the Silent Wave AF-S is whisper quiet and fast enough, it is not very sensitive on this camera, and many subjects in darker conditions took a number of attempts using the centre spot AF point.

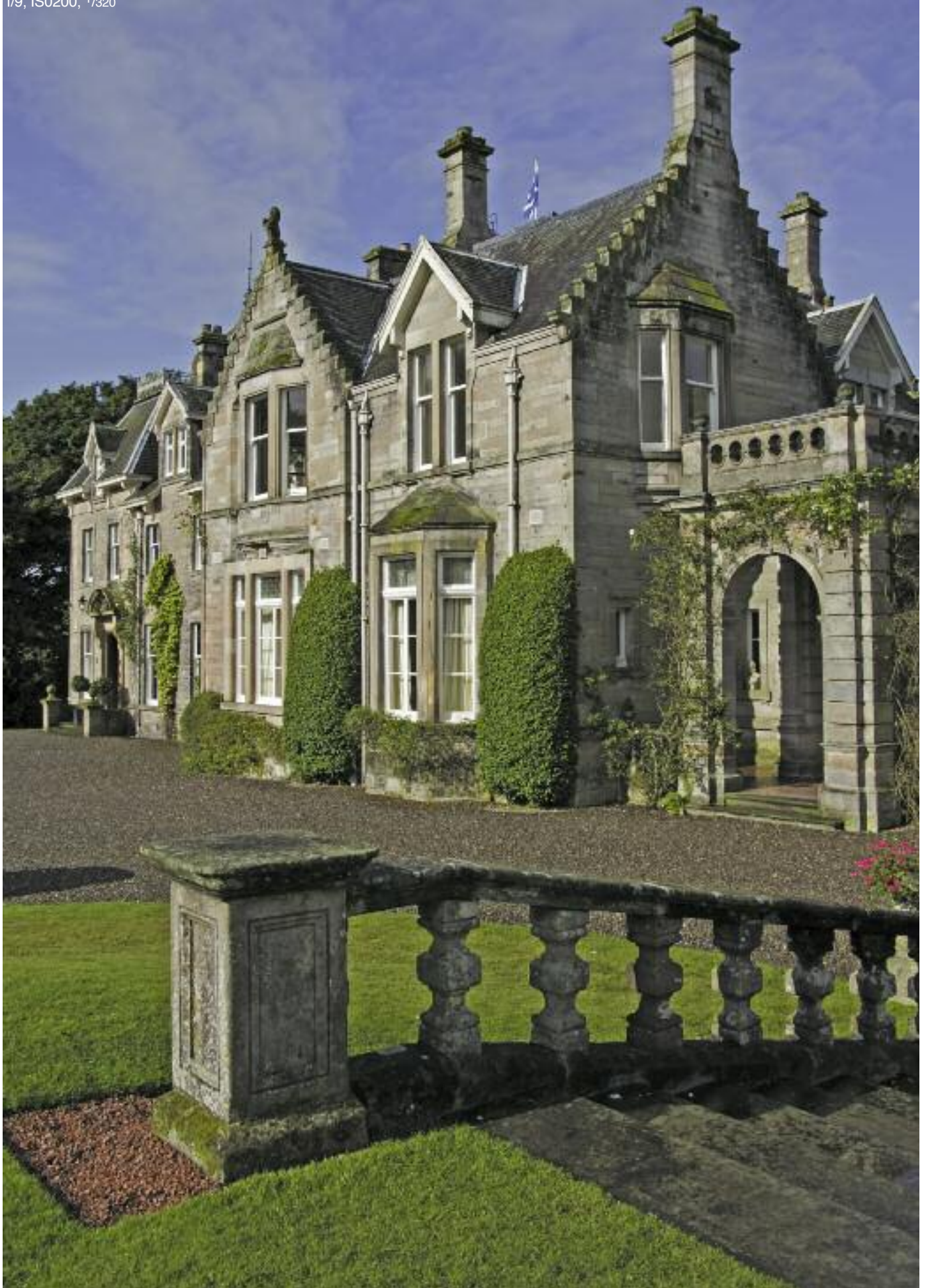
## Moving ahead

The big question is whether you need, or want, HDTV movies in a still DSLR. You can already buy a shoulder stock from Calumet to support the camera and make follow-movement actions more stable, as the alternative is to wave the camera in front of you (movie composition is only on the rear screen, of course).

Movies are taken after invoking Live View, but there is no automatic focus before or when



The D90 has good colour and contrast with shadow and highlight detail well retained in a Raw conversion. 18-105mm lens at 18mm, f/9, ISO200, 1/320





ISO 6400 with auto tungsten WB gives a rather unnatural result and limited colours, acceptable sharpness but a salt and pepper prone noise-reduced in camera Jpeg



Above: D90 Live View proved perfect with the 10.5mm fisheye held above eye level to compose a close up of rowan berries - impossible using the prism viewfinder.

you press the start OK button. First, you must force an autofocus action and get a green confirmation on the screen. Then, you can start recording. There is also no AF during filming, so you may need to use both manual AF and manual zoom. I found the separation of the controls on the 18-105mm made this a bit clumsy, tending to produce some wandering framing when reaching for the two options.

Auto exposure is on by default during filming, and if you leave it this way, you achieve a slightly damped effect, no sudden changes. It is still worth locking the exposure for a more natural result. I found the movie quality very high, especially in low light where typical camcorders get rough. The mono microphone sound is also surprisingly pure and directionally captured, a good thing

as there is no microphone input.

As for overall usefulness, 720p is not 1020p, and most film-clip stock must now be shot using 1020p. So it falls short of the industry standard for taking moving stock clips – which the new Canon models achieve. The 720p quality is still a bit artefact-smoothed, even when viewed full screen on an iMac 24ins (which is exactly a 1020p image size), but superb on most HDTVs, which are not all 1020p, and have special processes to enhance the playback.

Still frames from a video can be used three column in a newspaper and be impossible to tell from regular digital shots, but if you want full 12MP capture, you must end the video sequence and fire the shutter (one action does both).

Ultimately, the D90 is great for high quality personal filming, but falls short for commercial production. It's too compressed and not full HDTV spec. So, this DSLR will not earn you big money from clip sales, even if it impresses people when you upload your work to Vimeo or Vidyou (YouTube doesn't accept HD yet).

#### Fish or fowl?

The D90 is the size and weight of an entry-level DSLR, but offers benefits to anyone moving from – say – a D200, giving D300 or better image quality at £300 or so less. Where it shines is as a backup camera to a D300 – this is the camera the D3 owning professional should consider buying for a non-working partner or child. Any picture shot Raw and capturing the right stuff will be fully professionally usable, while its size makes it everyday and travel friendly.

Once you try the movie mode, especially if you have an HDTV, you'll be hooked. I showed the camera to a group of wedding and portrait pros at a seminar they were attending, who all said they had no interest in

the HD filming. Then I quietly filmed the model, the photographers and the tutor, and plugged the SD card into a laptop to show the result. They were all glued to the screen, amazed at the quality, and wanted to see the clip three times. That's the appeal – they would never have shown the same interest in seeing a few dozen still shots taken of the same thing!

f2

### NIKON D90

- 12.9MP DX-format CMOS sensor
  - 3ins 920,000 pixel LCD
  - Live View with contrast-detect AF
  - Face Detection
  - Image sensor cleaning
  - Illuminated focus points
  - Movie capture at up to 1280x720 (720p) 24fps with mono sound
  - ISO 200-3200 (100-6400 expanded)
  - 4.5 fps continuous shooting
  - 11-point 3D tracking AF
  - 96% viewfinder coverage
  - GPS unit fits on hotshoe
- [tinyurl.com/6r3fq](http://tinyurl.com/6r3fq)