

“RED is going to change everything.” This bold statement by Steven Soderbergh heralding the arrival of the RED ONE™ camera was seen by some as prophetic, by others as more hype from the big RED propaganda machine.

By Stephen Webb



SEEING RED

SINCE THEN NEARLY 2000 RED ONE™ cameras have been shipped, hundreds of features have been shot on them, many more commercials, music videos and TV programmes, and Soderbergh's own RED-shot *CHE* premiered at this year's Cannes Film Festival. And after 18 months of waiting, in early March, RED #692 arrived at AEFilms. The big question: does the RED ONE™ live up to expectations, or does it fail to deliver on its promise?

Early June and I am in Edinburgh working on the Film Council-funded short *NIGHT SCHOOL*. The production managed to secure the services of cinematographer Robbie Ryan (*BRICK LANE*, *RED ROAD*), on condition that he gets to shoot on the RED

ONE™. I've been brought up to provide the equipment and support services for what is to be Scotland's first film shot on the RED ONE™ camera. This is the culmination of an exciting, and sometimes madcap, three months since our RED finally arrived.

Wind back a few weeks and we were still working out how the various bits of camera gear best fit together. Since then we have shot a series of tests, some corporate work, and a couple of music videos. *NIGHT SCHOOL* though is the first big test of our camera; the first time a DoP of note has put it through its paces and the first genuine film set where it has to prove its worth. The previous shoots have all gone well and I am

confident that the camera will shine in this environment. I'm not disappointed.

From the start it has been obvious that, handled properly, this camera can produce images that are special. The first thing we shot when the camera arrived, a very quick test, was a 20-second *Birthday Party* scene. It was filmed indoors with only practical lights and immediately showed off why this camera has grabbed the attention of some of the world's top filmmakers. The pristine image and 35mm characteristics coupled with near-instant playback—either on camera or by plugging the digital magazine into a laptop—is a dream come true.

The genius of the RED ONE™ is that it records the RAW image coming from the



camera sensor with (bar compression) no processing. As with most cameras you have options for setting white balance, gain, exposure, etc. but none of this is actually baked into the image. Instead, all the information that controls the “look” is stored as metadata, information recorded alongside the RAW file that tells the various post applications how to display the picture. This means that if you change your mind later, you can reset the values. This could be as simple as realising you have selected the wrong white balance—instead of having a nightmare in the edit trying to correct the mistake as best you can, with RED ONE™ you simply type in a new colour temperature value and the shot is corrected accordingly.

The benefit of such a system is the power you have over the image in grading. Cinematographers will love this camera because, unlike with HD, they do not have to worry about getting the look absolutely spot on during the shoot. Colourists will love it because, as with film, the amount of latitude they have to work with gives them a great deal of scope to be creative. And in a “best of both worlds” deal, if you do not have the time or money to spend on grading, then you can just rely on those metadata files and work with the image as recorded.

Sitting down with Robbie Ryan to look

back through the NIGHT SCHOOL footage we had shot each day, he kept commenting on how impressed he was with what he was seeing. The film is entirely set at night, much of it interiors lit with strong primary colours (predominantly red in fact). The camera dealt with every situation superbly, delivering outstanding footage and allowing the artistry of the cinematography to really stand out.

Robbie made very few changes to anything in post, relying on the in-camera settings he had chosen and delivering as much range for the director and colourist to utilise in the final grade. This included shooting everything in the full 4K mode then downconverting to HD for editing and delivery. This approach of *oversampling*, shooting at a much higher resolution than you intend to output at, provides a much higher quality of image than shooting at the native resolution.

Much has been said about the camera’s ability to shoot at 4K, but this is only one option among several. The camera also has 3K and 2K shooting modes, settings that essentially take a “window” from the centre portion of the sensor. The advantage of this is that, as the amount of data coming from the sensor decreases, the frame-rate at which you can shoot increases. At 4K the camera can shoot variable frame-rates from 1-30

frames-per-second, at 3K up to 60fps and at 2K up to 120fps. 2K, although only a quarter of 4K, still has about 12 per cent more resolution than HD and is a similar size to super16 film with the added advantage that you can use cheaper, lighter super16 film lenses in this mode.

One of the first jobs on which our RED ONE™ was used was for our local neighbours, Blue Hippo Media. They were prepping an EPK to accompany the release of *Gown*, a new album and single by up-and-coming artist Jo Hamilton. Most of the filming was at 3K/50fps with Jo lip-syncing to a track of herself played back at double speed, although one shot was a beautiful slow-motion scene of her being showered with rose petals that used the 2K/120fps option.

At this point I feel that I should point out that shooting on the RED ONE™ is not yet perfect. There are little niggles with the camera itself such as mini connectors (DIN instead of BNC, miniXLRs, etc.) and the boot up time for the camera is currently around 90 seconds long. The biggest issue though is with the workflow. Thanks to a deal that RED struck with Apple in the early days of the project, Final Cut Pro is by far the easiest post-production software to work with when shooting on the RED ONE™.

There are several workflows available to get the camera R3D files into a format that

NIGHT SCHOOL



One to Watch Low-Budget Filmmakers



Ashvin Kumar

Ashvin Kumar's short film *LITTLE TERRORIST* was Oscar®-nominated in 2005 and has featured in the line-up of no less than 145 festivals, 15 of which garnered awards for the film. In his review of Oscar® shorts for that year, renowned US film critic Roger Ebert commented that, "in 15 minutes, the film builds genuine tension and poignant drama." Born in Calcutta and educated in India, the US and Britain, Ashvin's career began in the theatre, where he both acted and directed, but he felt that a move into cinema would afford him a better storytelling medium. He began by editing films, before transitioning into writing and directing (and even, in early cases, acting in his own short films). In 2002 Ashvin set up Alipur films with the mandate of bringing Indian films to an international audience. His feature film *THE FOREST*, a thriller set in the Indian jungle, was released in 2006. He is currently developing two films, *THE GREAT INDIAN ITCH* and a feature remake of his short film, *ROAD TO LADAKH*.

What training have you received?

I dropped out of film school after the second semester of a two-year course to put the rest of the course fees into my first short, *ROAD TO LADAKH*. Thereafter, I pretty much taught myself, hands-on, taking *ROAD TO LADAKH* and *LITTLE TERRORIST* through all the steps of production and post-production. Besides that, I watch a lot of films and I read and write scripts and try to become better with each film. Post shooting, I always debrief to figure out what went right and what went wrong, and try to remember it for the next time.

Does your budget limit what you can explore in your films?

Limitations are good: they force you to think, adapt, innovate and try to do so without compromise to your original vision. Sometimes some great dramatic/creative solutions emerge because one is forced to work within limitations. If the budget is large it's to accommodate an ambitious production, so the struggle against time and financial limitations are the same whether on a large budget or a small one.

What's the best advice you've been given as a low-budget filmmaker?

Just do it.

Most significant moment in your career so far?

It hasn't happened yet.

You'll die happy when...

I've made that one feature film that can connect with audiences around the world, and pushes me really far out there. When I feel that, I have really done something special. ■

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Final Cut can edit, but the problem is that not one of them (at the time of writing) is completely hassle-free. For *NIGHT SCHOOL* we elected to transcode all of the footage to Apple's ProRes codec using RedCine, a free software tool provided by RED. RedCine allows the R3D files to be converted into any other file format installed on your computer, and does so at the highest possible quality. The downside is that it is slow and so all the footage was loaded and then left to render overnight. Unfortunately it is also a Beta application (i.e. unfinished) and occasionally it does not quite work correctly, in which case it can take some time to sort out. In fact, despite the issues we have faced with the workflow, none have been insurmountable, just time-consuming.

One of the big strengths of RED ONE™ though is that it is constantly evolving. By the time you read this, most, if not all, the workflow issues should be sorted out. RedCine is a great app that is only a few bugs away from being completely useable. Alongside this is the promise of a Log and Capture tool direct in Final Cut Pro that will import and convert your R3D files for you, and a forthcoming plug-in for Apple's Colour application that will allow grading direct from the R3D files for a best-quality finish.

Likewise in the pipeline is native support for Avid and Adobe Premiere, programs that currently can only be used by first converting footage using RedCine. This will allow for similar integration to that which Final Cut Pro users currently enjoy.



Balancing Act: Steadicam Operator
Ed Moore flying the RED ONE™

Better still, the camera itself is constantly being upgraded. Every few weeks we receive an update from RED that we download and install onto the camera, which introduces new and often surprising features (such as the 3K recording option).

So far, what I can say with certainty is that despite a few quirks and workflow problems, the benefits of the camera more than make up for the inconvenience. The image quality is astounding, at least as big a step up from High Definition as HD is from Standard Definition. It does not quite look like 35mm film, but this is a difference in aesthetics rather than quality. RED-shot footage certainly does not look out of place on a cinema screen, a fact made even more remarkable given the price. Francis Ford Coppola once famously enthused about consumer camcorders, believing they would put creative power into the hands of ordinary people and allowing genuine artistry to challenge the studio system. In the RED ONE™ that vision, at last, has the chance to become a reality. The level of technology formerly only available to the few is now available to many.

The good news is that RED are not content to stop here. It was named the RED ONE™ with very good reason—they have already announced two new cameras for 2009. Top of the pile, and their new flagship camera, is the RED EPIC™. Smaller and lighter than the RED ONE™, it contains a next-generation 5K sensor that promises to be an improvement on the current design in every respect. Clearly they have taken everything they have learned from their first camera and are building it into the new product, including full size connectors—with any luck it will boot quicker too.

The best part though, and a deal that you will not find from any other manufacturer, is that RED ONE™ owners can trade their camera towards the new model for the same price that they originally paid for it. That means that when RED EPIC™ becomes available, we will be able to send in our RED ONE™ and get a \$17.5K credit towards the new camera.

For those that do not want to spend that kind of money though, RED have something else up their sleeves. RED SCARLET™ is their new "pocket professional" camera and, as they put it, is "3K for \$3K." Over twice the resolution of HD but at around £1500, costing less than half what many of the *prosumer* cameras currently do, it seems RED now want to win over the no-budget film world as well. If their current strategy with the RED ONE™ is any indicator, I would not bet against them succeeding. ■