



It's a question (or by some of the more vocal an outright statement) that comes up regularly with regards to Red - will this bring about the Death of Film? It's a question that divides the Red Community and leads to some of the most entertaining (if not particularly well informed) debate. Of course, those who are adamantly in favour of Film will immediately start the offensive by pointing out that the Red One "isn't even a product yet", so for the sake of this article I'm going to assume that the Red One is real and does everything we've been promised.

Of course this isn't the first time that "Film is Dead" has become a rallying cry for supporters of an alternative format. Proponents of Hi-Def have been trying to convince people for a few years now that their way is best and will quickly lead to the demise of an outdated, antiquated medium. They point to the convenience of shooting on video, supposed savings in cost and the cleanness and sharpness of the picture. Unfortunately for them, it clearly isn't the case that HD is on its way to replacing film. After a brief flurry of interest at the start of the HD "craze", more projects now are being shot on film than ever before whilst HD has actually started to see a downturn.

The reason is obvious - HD just doesn't look good enough, whether that's down to resolution, dynamic range, depth-of-field or unnatural sharp edges. Even the best Digital Films, shot on newer Cine-Style cameras such as Apocalypto and Superman Returns, have a slightly "video" look that marks them out to many, whilst cameras that make use of 2/3" chips and ENG-style electronics are increasingly derided for their poor aesthetics. It also seems that, with a few notable exceptions, those who are most vocal about the "quality" of HD come from a TV not a Cinema background - a distinction often highlighted by the fact that filmmakers understand that grain, unlike electronic noise, is a desirable artistic feature and not a nasty unwanted side-effect.

Red though is something different. It does have resolution and dynamic range close to that of film, the depth-of-field is identical and it doesn't have that nasty electronic edge sharpening (in fact it looks nice and soft, like film). The mooted workflow really should lower production costs right across the board, with a good

desktop system capable of handling footage transferred direct from disk rather than having to rely on expensive proprietary tape systems. All of this adds up to positioning the Red One in a much stronger position for consideration as a digital alternative to film than current HD is, but does it necessarily follow that traditional film is close to obsolescence?

The first thing to examine is whether Red will actually measure up to 35mm film. Given the published specs it seems it will come close, but there is enough margin to argue that film still edges it in the quality stakes. The two main arguments that will be used are going to be in the realms of Dynamic Range and Resolution. Red are currently claiming 11 1/3 stops of latitude but, once the sensor's been fully characterised, hopefully we'll be looking at 12 stops. In comparison, Kodak Vision 2 in ideal conditions can deliver up to 18 stops (though usually likely to be 14-16 stops in actual usage). Similarly, we know that Red's maximum resolution will be 4.5K, but again film still has an edge - 6k scans of properly exposed camera neg show greater detail over the same scans at 4k. The argument then becomes whether these differences are noticeable enough to matter, but the fact is professionals who back film retain the upper hand. Of course digital technology will certainly improve, but then so will film technology. After the disaster it experienced in the stills market, Kodak are well aware of the threat and both they and Fuji will be fighting to keep film technology at the cutting edge of cinema production.

Another issue is that of the reaction of the industry. The infrastructure for traditional film production has been in place for a long time, and big companies such as Technicolor, Deluxe, Arri, Panavision, Kodak and Fuji have a vested interest in the success of the current model. They're in a strong position to influence how the future of the market develops, and have reputations for reliability and service. Red, young upstart that it is, will have to prove itself to the industry (which isn't exactly known for its risk-taking approach). Given that there will almost certainly be teething-troubles at the start, it will take a long time for Red to make a real dent in the traditional film workflow. A fact that can't be underestimated is that 35mm film is an international standard (and how many new technologies can you say that about?) and is firmly embedded as the market leader.

Then there are filmmakers who just don't want to change over. Both Steven Spielberg and M Night Shyamalan have both stated that they will stick with film regardless of advances in digital technology, and many DP's have taken a similar stance. These are people to whom the "film v digital" argument isn't even a consideration. Regardless of the merits of digital, they simply love film; they love the look of it, the process of using it, being able to physically hold it and (in Spielberg's case) even the smell of it. They value the history of it and the expertise needed to properly use it, and how all these things help to inspire them in their craft. These are people whose wishes can't be ignored and Cinematographers in particular, the guardians of the cinematic image, are in a very powerful position to determine the survival of film.

So what about the idea that filmmakers will be forced over to Digital as film stock is no longer produced? Ultimately it may happen that way, but there is a very simple reason why that won't be the case for some time. Only about 10% of film stock manufactured is actually used for production. The vast majority of film is actually print stock for distributing the final movie to the cinemas, and is mainly what drives the market for film. Digital Projectors are slowly beginning to make their way into the theatre, but take-up is slow and complicated by several issues. Cinema chains are reluctant to invest in technology that will almost certainly become redundant in a few years (unlike film projectors), they certainly don't want to get drawn into a war of competing formats (4K v 2K is already an issue) and there are complications over standards and delivery methods. Furthermore, many less developed countries will simply stick with the technology they currently have ensuring that there is a demand for film to be manufactured for some time to come.

A closely related issue is that of archiving. Film is a known quantity in this respect, and is relied upon as a secure archiving medium that guarantees your film will still be watchable in a hundred years time. The problem with using a data-storage medium, whether hard-drive, tape or optical, is they tend to become obsolete within ten years or so. Archiving to the current standards of magnetic media is an almost sure-fire way to ensure that accessing your footage in 20 years time will be expensive and difficult as interfaces and software develop way beyond where they are today. When you think that The Wizard of Oz, a film fast

approaching it's 70th Birthday, has just been re-released in cinemas, this issue becomes very clear.

When it comes to the Big-Budget features that are the staple of the industry, Red actually becomes very much less of an issue. There will no doubt be proponents of the technology and format, and I'm sure some big names will be backing Red (David Stump for one is already very enthusiastic about it), but ultimately the cost benefits of Red are insignificant compared to the budgets that even a modest mainstream movie commands. Because of this, and the fact it is proven and the industry developed around it, I see film as remaining the default choice for most major films unless a Director or DP specifically requests otherwise.

I can see certain areas of the industry where the Red One could have a fairly rapid impact though. One of those is with VFX houses where the speed and convenience of the technology is certain to appeal to the market, as is the advantage of keeping the whole workflow digital. I can also imagine it becoming a format of choice in Television, especially here in the budget-conscious UK, within 2-3 years. Similarly I think it will have a big impact in the world of low-budget features as Indie filmmakers realise the quality it offers them at an affordable price.

But ultimately I think the imminent demise of celluloid is greatly exaggerated. Red may mark the beginning of the end, but the ultimate death-knell of film will still be a long time in coming.

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