You Should Be in Pixels

By Debra Klein.

Who needs film ? Evidently George Lucas doesn't. He shot his next "Star Wars" movie digitally, on tape instead. In 1996, when the science-fiction director saw movie production costs soaring past the $ 100 million mark, Lucas approached Sony with a challenge : find a way to capture images digitally, but deliver the picture quality of film. Sony put a prototype machine in his hands that records at 24 frames per second, the same rate as film by November 1999. A year later he had completed shooting "Star Wars : Episode II" – using only High-Definition technology. It's set for release in May 2002.

Now other directors have joined the force. The University of Southern California just opened a digital-arts center to train the next generation of filmmakers ; technology companies like Texas Instruments, Sony and Panasonic are building cutting-edge equipment, and artists are gradually getting on board. For moviegoers, the benefits can be subtle : digital movies don't degrade like film, so the 100th viewing will be as crisp as the first. Cheaper moviemaking tools will also make it easier for budding auteurs to say "Action ! ".

Next year Hollywood plans to present the first HD digital movies on HD projectors. This means live-action movies that have been shot with the new cameras will be screened using digital light projectors (DLPs). The industry's hope is that when projected using this special microchip technology, images shot on digital cameras will not only look as good as film, but also be delivered as easily as e-mail. With digital, studios plan to beam movies over satellites or fiber-optic lines directly to theaters, eliminating the expensive process of making and shipping multiple film prints. So far, a handful of studio releases have been shot in digital video, notably Mike Figgis's 'Time Code 2000" and Spike Lee's 'Bamboozled", "but these were transferred to film and projected the old-fashioned way. The first studio feature using both digital cameras and digital projectors will be Jersey's Film's "How High", due at the start of 2002.

Right now, few audiences can experience the full digital effect. Only 31 screens world-wide are equipped with the technology. Financially strapped theater owners say they won't be snapping up expensive digital projector systems just yet. Still, a new Forrester Research study predicts that more than a third of the country's 36,000 movie screens will go digital in the next 5 years. There have already been a couple of "stunt" digital transmissions of movies using satellites, and some theaters have screened digitized versions of movies like "Dinosaur" and "Toy story II" using DLPs. For those showings, technicians physically delivered the movies on CD-size discs and loaded them into projectors at each theater. The projectors decode the digital information and – using light pulses across microscopic mirrors – transmit pictures to the screen.

What does a microscopically transmitted picture look like ? Right now, a lot like TV. At a recent demonstration in Silicon Valley, the experience didn't live up to the hype. To the eye of an average moviegoer, images captured digitally did not have the same feel of those shot on film. Digital pictures do have a hyperreal clarity. You've never seen water that sparkles so crisply or trees so green. Even so, images captured on the industry's newest equipment – the Sony 24 P HD camera fitted with Panavision's sophisticated lenses – still look flat and two dimensional.

The technology has also not yet overcome large gaps in resolution – the amount of picture information carried by digital pixels is still a fraction of what is contained on a frame of 35mm film. This deficiency affects color and shades. "Film is bigger", says cinematographer John Hora. "There's more grain available to make variations in a tonal scale". Certain fine objects, such as cigarette smoke, elude capture on digital tape. Then there's the matter of our eyes, which are just not used to gazing at pixellated data on a large screen.

Tehnology, of course, improves rapidly. And digital moviemaking already has one important upside : it's cheaper. Independent filmmakers are especially fond of the medium, using it to tell small-budget stories that might not otherwise get made. Director Allison Anders had only 17 days to shoot her intimate, character-driven "Things behind the Sun", when she turned to digital last June. "There were fewer trucks. Your film is all in a little box".

Digital cameras are lighter, more mobile and can use more available light, making it easier, some say, to set up shots. "I could just run down and grab things", Anders says of impromptu "image capturing" (the new word for filming) she did on the set. "I saved a tremendous chunk of my budget." The question is : will movie-goers pay an esthetic price ?

Abridged from Newsweek
April 9th 2001

You Should Be in Pixels

By Debra Klein.

TRAVAIL A EFFECTUER

1 - Rédigez **en français** un compte-rendu du document proposé (250 mots à 300 mots) **8 points**

2 - Traduisez **en français** le passage suivant : depuis la ligne 141 "Digital Cameras are lighter..." jusqu'à la ligne 152 "...an esthetic price ?". **4 points**

3 - Répondez **en anglais** aux **deux** questions suivantes :

3.1 - What are the advantages and drawbacks of 35mm film when compared to digital imagery ? (50 words) **4 points**

3.2 - What may be the consequences of the abuse of digital technology in the development of film-making ? (60 words) **4 points**

L'USAGE DU DICTIONNAIRE PAPIER BILINGUE FRANÇAIS/ANGLAIS EST AUTORISE.