Michael Jai White in
Mark Dippé's *Spawn*.
Special effects by
Steve Williams.

Steve "Spaz" Williams

& the Future of CGI

By Peter Goddard

Sheridan Animates Manhattan was a three–day event held in January which included workshops and showcases of student's work. The Canadian consulate in New York was promoting the Oakville college's renowned classical and computer animation departments and, indeed, Sheridan was the only educational institution invited to be part of the consulate's big push of the Canadian arts industry. Sheridan graduates Steve "Spaz" Williams (*Terminator 2: Judgment Day*, *Jurassic Park*, *The Mask*, *Spawn*), James Straus (*Forrest Gump*, *The Flintstones*) and Dennis Turner (*Congo*, *Twister*, *Star Trek: Generations*) kicked things off with a master class in computer–generated animation. *Take One* contributor and *Toronto Star* arts reporter, Peter Goddard, was there and caught up with Williams after class.

Jim Carrey in *The Mask*: CGI is no longer the new toy on the block. It owns the block.

The security guard is told to be on the lookout for the "Spaz." I can see he is not entirely happy looking for the Spaz. "What is this Spaz thing, anyway?" he mutters, more to himself than to me or anyone else. "Wasn't this a movie gig?" He'd heard titles like *Jurassic Park* and *The Mask*. He was hoping for stars, not someone called Spaz. Would Julia Roberts date a Spaz? Okay, maybe she would, she's kind of like that, he'd heard. But Claire Danes? No way, man.

Lost in his thoughts, figuring a limo is about to show up in front of Florence Gould Hall on 59th Street, he misses Spaz—a.k.a. Steve Williams—who's one of the main speakers as Oakville, Ont.'s very own Sheridan College shows off its computer imagery stars to a New York crowd in the heart of winter. Spaz Williams knows this routine but he has decidedly mixed feelings about it. Part of him likes the hairy–eyeball treatment he gets from the forces of the upright, uptight and righteous. It confirms his outsider status. As anyone knows, the Spaz loves living and working as freely as he can. He's the outsider of outsiders.

And yet, it's sort of lame–brain, right? This weird double take and "can–we–help–you?" look he gets because he's a tad grungy looking, like he might have just walked out of some vintage Neil Young video with Crazy Horse. Williams even keeps a mental file about the double takes he gets. His favourite came when he was told "all deliveries are at the rear" as an audience of 1,500 waited for him to speak inside the auditorium. "Computer geeks aren't supposed to look like Spaz Williams," according to a San Francisco *Chronicle* piece on him a while ago, "they're supposed to have rounded shoulders, bad skin and a fogged–over, indirect gaze from too

much time at their beloved monitors and not enough at the banquet of life. Spaz, on the other hand, dresses like an extra from a 1960s biker flick." Spaz thinks, "So what's the big deal about the way I look, anyway?" It's the end of the 1990s. Rock'n'rock is a half–century old. There are billionaires with long hair and CEOs who have never worn a tie.

These are critical times for Steve Williams. Then again, these are critical times for computer animation and the link between them is not coincidental. If computer–generated imagery (CGI) has a soul—a spokesperson, a theorist, a moral centre—it's Spaz. If CGI has a future (a real one and not just as a Hollywood FX add–on), he'll be part of it. Williams is trying to give CGI its independence, the kind of independence you often can't get in Hollywood. A lot of his hottest work has gone into advertising recently. He wrapped four spots for Nintendo. "He thinks his best has gone into them," a friend says.

Technology has shaped all the arts, but none more so than film and CGI may have all the enormous impact sound did. But Williams has his fears, too. CGI is no longer the new toy on the block. It owns the block. If the big CGI story just two or three years ago was the hardy band of Canadian pioneers, now it's judging the impact of their work on cinema itself. "People just see all this as 'the movies,'" he told me one morning some time ago after he'd been up all night in a manic game of darts. "People would not believe what's going on as they sleep. And what's going is just the first step. Trying to replicate ourselves synthetically is just the blueprint."

The CGI revolution may have been further advanced if director

James Cameron had followed the implications of one of Williams's defining pieces of work in 1989. When Williams's slick and silvery pseudopod sneaked a snakey look at Mary Elizabeth Mastrantonio in *The Abyss*, a pivotal point was reached in the movie and, in a way, in Cameron's career. What Williams had provided for Cameron was a fabulous ending and a fabulous breakthrough into computer-animated "Cyberwood." Here was a creature from the deep, something beyond any imagination, something with powers beyond our imaginations. What would creatures living profoundly deep in the oceans look like? How would unimaginable pressure have shaped them? How would they move? What could they do?

Spaz thinks about stuff like this. And he hates it when others don't. He ends up shaking his head when he sees some huge CGI-created critter making impossible moves for a creature of its multitonne weight. So his sea snake looked like it might have been formed by its pressure-packed environment. But Cameron and *The Abyss* producer Gale Anne Hurd—one of Cameron's ex-squeezes—didn't want to get too weird with their imaginary undersea creatures. Their sea-bottom aliens ended up looking like the pop-eyed, big-headed aliens from outer space. "All our research told us that people thought [alien critters] would look this way," Hurd told me at the time. So Spaz's pseudopod didn't get any further scenes, *The Abyss* aliens looked like all other aliens and Williams's vision had to be put on hold while he continued to work at George Lucas's Industrial Light & Magic (ILM).

Yet, it was Williams's pseudopod design for Cameron that landed him his ILM job in the first place. He was 26, only four years out of Sheridan College, only two out of Toronto's Alias Research (now Alias/Wavefront) where, among other things, he helped train ILM graphics people for a software program ILM was providing the EPCOT Center in Florida. He was also the least likely employee ILM would ever have, a rocker among the nerds and—perhaps the most radical of all—a Canadian who was screamingly proud of being Canadian, right down to the Stompin' Tom Connors tapes he'd play in his basement cubicle where he'd work. But this flag-waving Canadianness wasn't about homesickness—Spaz grew up at the top end of Avenue Road in Toronto and went to York Mills Collegiate—it helped explain his creative process. Canadian culture is so much starker visually (all those black winter nights; all that white ice) than sun-drenched southern California that it actually fosters the kind of vision CGIers need to have, he thinks. Canadian culture forces the imagination to go into overdrive. "There's something about being Canadian whereby we don't need all the visual and all the tactile impulses supplied to us because our minds are already so good at supplying the rest of the information," he tells me. "When we come to an environment where all the tactile and all the visual is supplied, we already understand how those things are organized. We tend to have a great deal of power because we already have had so much training at using our imagination."

Williams's stay at ILM was legendary. For a while, they were good for one another. He was nominated for an Oscar for his eyeball popping work on *The Mask*. His digital-scanning wizardry in *Terminator 2: Judgment Day* where a digital clone was made from Robert Patrick's movements, was a major step forward in CGI. And Williams made CGI history when Steven

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From left: Steve "Spaz" Williams with *Spawn* D.O.P. Clint Goldman and director Mark Dippé

Spielberg saw what Williams's CGI T-Rex could do and decided there and then to make ILM the official supplier of *Jurassic Park*'s dinosaurs. He even got to work on Jabba the Hut for the enhanced re-released version of *Star Wars*, the film that turned him onto animation in the first place. But the bigger ILM got—from 40 to 400 workers during his time there—the more straight-laced it became. He had to react and cheekily. He'd diss ILM product (*Casper the Ghost*), clients (Spielberg) and his boss (Lucas). His break with Lucasworld came when he teamed up in 1997 with another ex-ILMer, Mark Dippé, to make *Spawn*. Since *Spawn* was being produced by New Line, Williams and Dippé took some measure on the ILM droids by becoming one of their clients. "We had a rule," Dippé told reporters at the time, "and the rule was whatever we did, it had to be fucking cool. That was the rule. It had to have that edge."

Spawn's $45-million budget was split almost equally between production and postproduction, an unheard-of ratio. But it also showed Williams how the system worked. He wasn't always impressed. "When you do a movie, you go in with the best of

intentions," he says. "You're basically doing someone else's story. But you get caught into this machine called Hollywood, where they have a way of making a movie and they don't want to hear about any other ways. They supply the money and it happens their way. I wasn't interested in directing *Spawn*, really. [Williams supervised the visual effects and was the second–unit director.] I wasn't a big fan of the comic, but *Spawn* was basically my way out of ILM. When we started, we had about 100 effects shots, but after we screened it for New Line, it said, 'here's $10 million more, put in more effects shots.'

"We were a bit at a loss, because we were trying to tell an elaborate story for a PG–13 audience about a guy who dies, goes to hell and comes back. To try and water down what should be an adult film for a PG–13 audience you have to sacrifice believability. But as Hollywood says, 'when in doubt, add more guns and more effects.' So *Spawn* became a runaway train, as most of these movies do. That's the one detriment of the FX industry, it's ended up destroying the moviemaking medium itself. Just because this whole new can of worms has been opened, it doesn't mean everyone knows how to use them. Jim Cameron is one who does get it. Most don't. Lucas recently blasted the film business. He said it's taken away the creativity, and it's being driven by accountants. That's why he intends to take the distribution away from Hollywood. The cost of cutting 2,500 prints of a film can be around $5 million. Lucas doesn't want to do this. He wants to transmit his films digitally.

"The way of going to see a film now will not exist in 15 years. Here's an example. *Stars Wars Episode 1 The Phantom Menace* will be projected with one of those huge, mother–ass projectors in five select theatres that will have a complete digital setup. It'll be a test. They won't be sending cans of films to the theatres. They're running a direct digital line into each one of those theatres and will be piping the film through those lines straight to a digital projector. This will become the standard. The only reason film is still being used is that it's still the best display medium but that will change. You'll start hearing people saying this will never happen. But as soon as you hear the word 'never' you know it will happen. It may never be announced, but I know many guys who are working on it."

This is the other side of Steve Williams. As much as he's shaping "Cyberwood," Williams is also its chief critic. In part it's due to the bad movies it turns out. He hates *Braveheart*, for instance. In part, it's due to Hollywood necrophilia, getting hooked on every new gizmo that comes along. Now it's the digital world, but as Williams points out, the math that underlays digital animation is there in nature itself. All that digital animation can, at its very best, only replicate nature. "We are just learning this stuff," he says. "It's been there for a long time. Nature has already known this stuff for billions of years. The math involved in hanging a limb off the side of a tree is unbelievable. I think we're just the product of a very successful computer company. So what do you do? You say, 'I'm going to take full advantage of this experiment. I'm going to take full advantage of the way I was made. Drink beer. Walk around. [Williams has an 18–acre farm near San Francisco.] Procreate. I like cars, engines and noise. I hate electric engines because they don't make enough noise.

"As a guinea pig, I'm thumbing my nose at the creator. It makes me think of my brother Harland. He was in *Rocket Man* and he was in an isolation chamber that was supposed to destroy his senses, but he actually liked it. That's what being here is kind of like for me."

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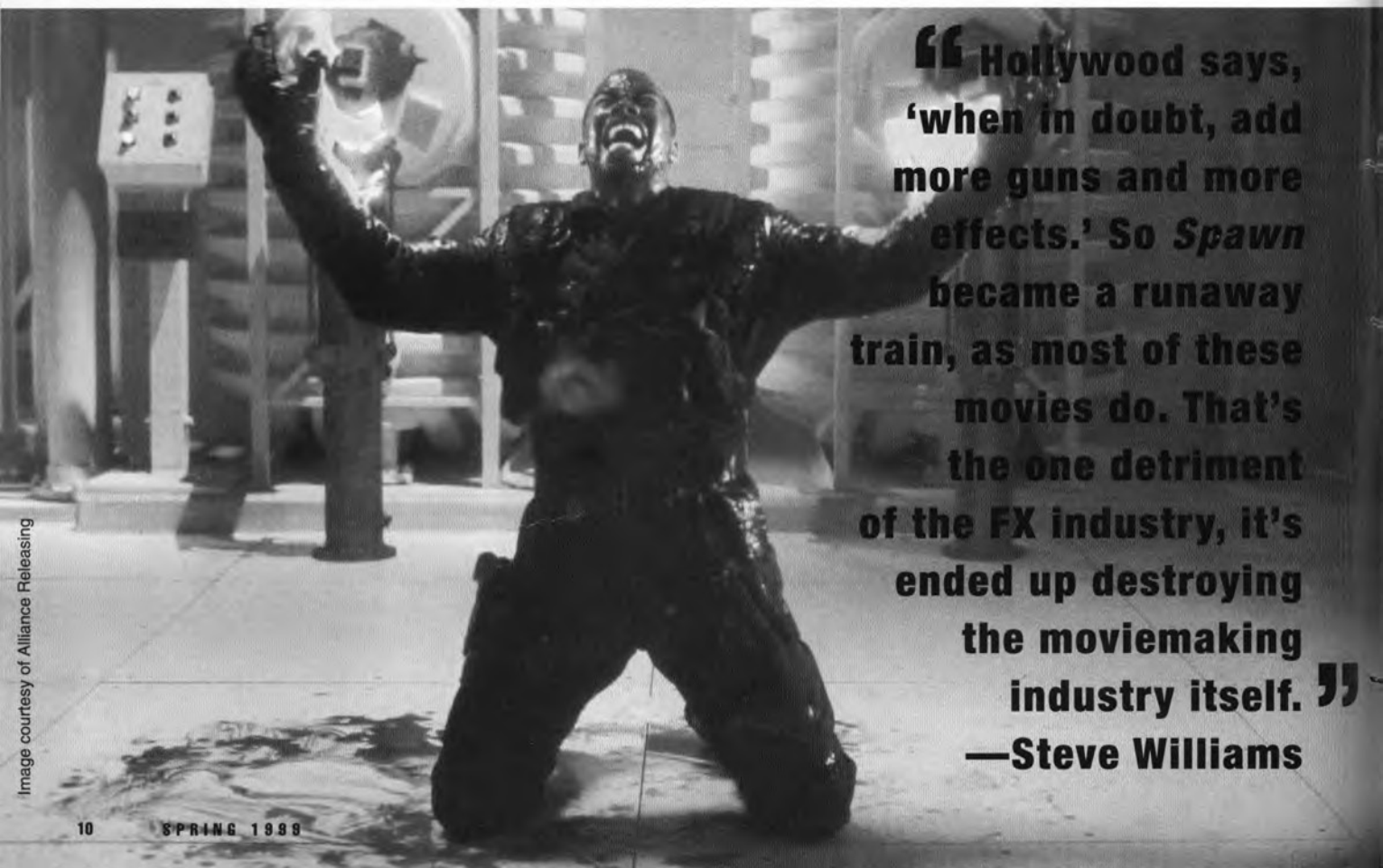> —Steve Williams