

ANIMATION

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June 2002

Summer Fun

Lilo & Stitch



The Effects of Star Wars and Spider-Man

Unusual Animation Techniques • Spike & Mike's Festival Hits 25

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Mix and Match:

ANIMATION TECHNIQUES

by Fred Patten

Animators working in short film formats are continually challenged to develop new looks to catch the visual attention of increasingly sophisticated audiences. With the addition of digital tools and just plain innovation, there is an exponentially increasing number of ways to achieve a new, fresh look. Here is how four projects – a CGI film envisioning music, an Estonian television short, a funky TV commercial and a promotional

CD-ROM — have recently seized these opportunities.

Animusic

Wayne Lytle, Animusic Founder and Director
Animusic, Cortland, New York

Wayne Lytle first began to envision music animation in 1982, in the very early days of MIDI. In 1989 he began coding his first MIDI-driven experimental animations, introducing *More Bells and Whistles* at the SIGGRAPH 1990 Electronic Theater.

Music animation has continued to be his passion, and to this end he formed Animusic in the mid-'90s. Animusic produces computer animation video albums, released on DVD. A video album is comprised of several “pieces” — or “singles” (in record industry lingo) or “animated shorts” (in film industry lingo).

As Lytle explains, “In each piece, the goal of Animusic is to create virtual instruments that give the illusion of creating the music heard on the soundtrack. The music is created on synthesizers, and the animation is all data-driven computer animation.”

Musical instruments are modeled using commercial 3D animation software, and then animated via proprietary algorithmic animation software called MIDImotion™, created by Lytle.

MIDImotion analyses the MIDI data in a pre-process and calculates all motion for a given time range. For each frame, the entire musical context is taken into consideration, including not only the notes currently sounding, but those that have played recently, and those coming up soon. This allows for accurate motion-planning.



Harmonic Voltage. © 2001, Animusic.



Stick Figures. © 2001, Animusic.



Future Retro. © 2001, Animusic.

There are about a dozen different algorithms applied to create the object motion. These include algorithms for percussion instruments, sticks and mallets, vibrating strings, and various more general music-based motion. Typically each instrument will use several algorithms simultaneously in layers.

Although logically the music drives the graphics, the music can be composed in parallel to the set and instrument construction and either may be changed at any point up to the final render. In fact, some Animusic animation have visualized music that was composed, sequenced

and produced several years before the instruments were constructed, while others have had the entire set built before the music was even started.

Animusic is excited about various emerging distribution opportunities in the record/video industry, but until a deal is finalized, DVDs are still primarily being distributed online.

Bushman Pete

Margit Lillak, Director
Multi Film, Ltd., Tallinn, Estonia

[In creating *Bushman Pete*], we started out as if we were making a cut-out animation. We made the puppets by hand using different materials and collage. We preferred materials that had some dimension and were not flat, and we combined the "2 and a half D" characters with different photos and landscape paintings of mine. The thing that maybe made it unusual looking the most was the possibility to work the

camera three-dimensionally in a 2D world, and that gave it more depth. And the whole concept was that the main character Bushman Pete is always in movement, either running or jumping on the moving road.

In order to prepare the sets and puppets for the animation program we scanned them and processed them through Photoshop and then started to build the scenes in CreaToon by putting together a system of layers. We wanted to make the camera movement as authentic as possible by laying the layers very far apart from each other and the characters in front.

The biggest challenge was probably the camera work, and how to make the pans and the zooms work so that they would look natural. We had to find the right distance for the separate layers as if to imitate nature's distances. The other challenge was to figure out how to keep the road moving continuously so it wouldn't disturb the viewer.

We made another short animation in the same program before as a pilot called *Jack the Nose and Jane the Thumb*. This film is a second part of a TV series called *The Bogey-Bob Stories*. We wanted to make a series for children that would differ from the mainstream and sort of walked on a sharper edge showing the bizarre side of children's pranks. The stories originate from the Estonian author K. A. Hindrey and were written in the 1920s.

Chick Walker

David Kelley, Director
Curious Pictures, New York, New York

example of how I would animate Butch Belair's beautifully distorted characters (the models in the Steve Madden print campaign). Tom Kane, the creative director at Hampel Stephanides, wanted to see how the girl in the poster could be animated into a scene, in an interesting way. So the way I envisioned working was to make a series of still shots for the background, sequence them in the computer, take the model from the poster, cut her out and walk her in a cycle of about 80 frames. Then track her into the shots frame by frame using Adobe AfterEffects compositing software. The stop-motion backgrounds combined with the strangely walking model culminated in a very striking look; it was a totally different look because the way the camera moved through the scenes was incredibly dimensional. The test proved this animation technique would work for the whole spot. We could do anything we



Cakes do not tempt Pete.
© 2001, Multi Film, Ltd.



Pete seeks attention in the worst way.
© 2001, Multi Film, Ltd.



Chick Walker. © 2002, Curious Pictures.

wanted. We could tell any story.

The spot was storyboarded and planned very carefully; R&D

I was asked to make an



Chick Walker. © 2002, Curious Pictures.

was done 2 months before we shot the real spot to figure out how the look would manifest. Tom Kane was responsible for the Steve Madden ad campaign, and utilizing Butch Belair's photo illustration style (the women with the big heads).

The backgrounds were shot with a still digital camera with a fish-eye lens, hand held photo montage scenes were shot, then sequenced in AfterEffects. The models were shot by Butch Belair, 2.25 film stills, then scanned at a very high resolution, the models were distorted and carved up into pieces, so I could animate the facial features/expressions (supplied by Butch), eyes, hair bounce as a wide-shot or an extreme close up. The jewelry, arms, legs, hands, hair, hips, etc. were cut into joint sections in Photoshop, imported into After-Effects, then linked to each other so all joints could swing in proper relation. The models were then animated to work as perfect walking loops, in 3 different angles: front, back and 3/4. The little chick was also done the same way, but not looped, because his hopping/walking style needed to be more spontaneous. Motion blur was added where necessary, the models were tracked into the photo-mation background at 15fps, hand animated frame for frame to match the movement of the

jittery backgrounds.

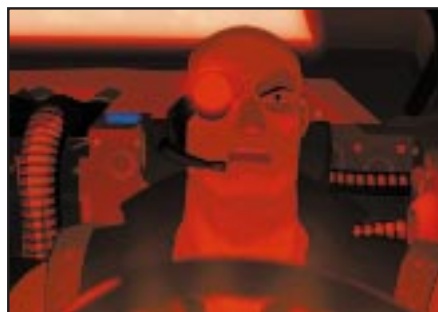
It was great working with a small crew (co-director Butch Belair, Tom Kane and a producer and a p.a.) to shoot the backgrounds. New York City has limitless locations and the ease and speed of shooting with a digital camera allowed us to experiment with multiple scene variations. I could shoot a scene and be animating it 30 minutes later. No developing, no film to tape. And the digital resolutions are so high, the latitude is very wide, and colors are saturated. It was really fantastic to work this way compared



"Code name: Hero," Nissan's pseudonymous young engineer.
© 2002 TBWA\Chiat\Day.



Hero evades one of Viko's deathtraps, thanks to Nissan's maneuverability.
© 2002 TBWA\Chiat\Day.



Viko the renegade engineer.
© 2002 TBWA\Chiat\Day.

to the obvious limits on video, or the time and money constraints of working in 35mm film.

We shot the models in 6 phases of the walk cycle, and animated the body movements between the key frames, making sure not to make the movements too smooth or normal. I loved the funky look to how they walked — something a little off. We added window reflections, and shadows that fell on the bodies as they moved through scenes. We made the tag on the bird collar flip around, lots of detail, mainly because it had to look like the girls were shot in the actual scenes using thousands of still photos. Accidents, anomalies and serendipity were welcome.

Software used was primarily After Effects 5.5 and Photoshopper 6, and Final Cut Pro.

Hardware was Final Cut Pro on a G4 Macintosh and a VooDoo Card running uncompressed D1.

Master of the Sixth Speed

Debra Wittlin, Producer
TBWA\Chiat\Day, Los Angeles, California

Delving into the realm of anime filmmaking was an elaborate undertaking with an incredibly rewarding result. It was our intention to capture the core essence of the anime film genre. The film spans almost 4 minutes; there are 91 scenes (not including the opening/closing credits).

Master of the Sixth Speed was animated through a combination of 3D and 2D animation techniques. Will Vinton and Celluloid Studios created and animated the characters (Hero, Chief, Viko) in 2D cel animation. Rhythm & Hues animated the Nissan car,

backgrounds and all other vehicles in 3D CGI animation. The 2D characters were composited into the 3D backgrounds for a seamless, believable aesthetic. Rhythm & Hues handled the final composite.

The 3D environments and the vehicles were the first elements to be animated. The Sentra SE-R was scanned and photographed in 3D at actual size so that the animated car would be scale-accurate. The backgrounds and other vehicles were initially approved via layouts and then reviewed in the form of 3D animated scenes. Once the background environments and the car were underway, the 2D characters were created. The usual 2D process unfolded: initial drawings/character design sketches, locking into the model for each character, layout sheets which showcased the action of the character within a specific scene. Key frames as well as pencil tests were reviewed, modified and then sent to final ink & paint. The final 2D characters were then added into the 3D world.

The shading on the 2D characters was developed during the character design and animation stages. The folds in the character clothing and shadow detail on the face, hands, legs/feet and wardrobe are part of the initial character design. These elements were then provided in layers (shadow and highlights matte passes, etc.) for final animation. This type of detail is a signature part of the anime genre and as such, it was a creative priority. Each 3D scene was lit upon final animation. After the 2D characters were composited into the 3D scenes, the overall

environment lighting could be dialed to taste to accommodate the addition of 2D elements.

The 3D CGI technology allowed for intense camera movements and unique perspectives, which added a level of dynamic filmmaking and enhanced pacing to the piece. We took advantage of this at every possible opportunity. For example: during the helicopter chase sequence the chase ensues on the mountainside and the Sentra SE-R outpaces the helicopter — this particular scene consists of a long, continuous, dramatic camera move and perspective shift. Another example is when the Sentra SE-R exits the tunnel from the Nissan Design Center; a camera move reveals the exit and the transition to the mountainside environment where the chase takes place.

The two animation houses maintained constant communication. One of the challenges was ironing out any questions pertaining to frame count and what was best for the 2D and 3D animation elements. Since anime is typically generated at a reduced frame rate, it was determined that this film would be animated at 15 frames per second. The 2D would be animated on a scene specific basis depending on what had been established for the backgrounds. Although the film was primarily done at 15's, there were individual scenes at 30 (such as those with car video effects).

Another challenge was the ensuring that the 2D animation lined up with the 3D backgrounds — this was particularly complicated when dealing with characters' hands and feet and how they looked and felt within the

3D animated Nissan Sentra. Will Vinton and Rhythm & Hues circumvented this potential challenge by doing pre-comp tests (pre-composite with pencil tests) to review the registration before final animation was completed.

Note: QuickTime clips of *Animusic's* "Future Retro" piece and *Chick Walker* may be viewed online at

http://mag.awn.com/index.php3?type=pageone&article_no=1427

Fred Patten has written on anime for fan and professional magazines since the late 1970s.

He wrote the liner notes for Rhino Entertainment's The Best of Anime music CD (1998), and he was a contributor to The World Encyclopedia of Cartoons, 2nd Edition, ed. by Maurice Horn (1999) and Animation in Asia and the Pacific, ed. by John A. Lent (2001).

Note: Readers may contact any *Animation World Magazine* contributor by sending an e-mail to editor@awn.com.



© Mellow Manor Productions.

At times, there seems to be a tangible link between Rock 'n Roll, Underground Animation and the artists that produce them both. The children of this marriage include not only the animated music videos found on MTV, but a certain clique of feature and short films as well.

It is fitting then that one of the main producers and promoters of cutting-edge animation is itself a product of the union of Rock and 'toons. For the past twenty-five years, Spike and Mike's Festival of Animation has been a traveling road show of some of the most original, innovative and more often than not, bizarre independent animation currently in production. While animation festivals happen worldwide and feature short films, they are rather

GROSSED OUT FOR A QUARTER CENTURY: Spike and Mike Turns 25

by Paul Feldman

exclusive affairs. Spike and Mike's Festival is probably the only time that short films travel to local theaters and college campuses all over North America to expose "normal" people to the joys of animated short films.

Madcap Beginnings

Spike (AKA Craig Decker) explains the Festival's genesis: "I did bass and vocals in a '50s style Greaser band, my stage name was Spike. We rented a house in Riverside [California]." This same house would become the namesake of Spike and Mike's production company, Mellow Manor Productions.

Spike goes on to recount his first meeting at the Mellow Manor with Festival co-founder Mike Gribble: "Mike showed up at



Spike (left) and Mike with Angie Pike of the Creative Film Society.
© Mellow Manor Productions.

a party in a clown suit with mirrors on his shoes, trying to look up girls' dresses...When the band broke up we started doing Midnight Rock 'n Roll films, using Max Fleischer, Betty Boop, Popeye...[It eventually] evolved into the Festival."

Now, a quarter century later, Spike and Mike has expanded from existing as a touring festival into a much wider enterprise, encompassing the commission and production of works, in addition to the releasing and screening of animated films.

"Mellow Manor is our production company. Spike and Mike's Festival is first and foremost a theatrical release. We've toured with



The program from the most recent collection.
© Mellow Manor Productions.



John Lasseter (left) and Nick Park are both successful alumni of Spike and Mike's Festival. Lasseter photo courtesy of Disney. Park photo TM & © 1998 DreamWorks LLC.

Korn. We've also done DVD and Internet releases. The evolution of technology lends itself so well to what we do...it's really cool. It's unlimited what you can do."

Animation on the Run

Spike and Mike's Festival is composed of two main screenings, the Classic Festival, which focuses more on films that will get the attention of the Academy and the renowned film festivals of animation, and the Sick and Twisted Festival of Animation, for which the duo is known best and...uhm...respected (?).

After twenty-five years of running an edition-based theatrical release that remains uncompromising in its independent and unique spirit (and its ability to gross an audience out), one could wonder what keeps the fires fueled and burning at the Mellow Manor. While "[The Festival] is how we make a living," explains Spike. "It's turned into a place for finding and discovering new talent."

This is certainly a statement that needs no qualification. A look at some of the Festival's past alumni is proof enough. Heavy hitting names such as John Lasseter (*Toy Story*), Craig McCracken (*Powerpuff Girls*), Mike Judge (*Beavis and Butthead*, *King of the Hill*), Trey Parker and Matt

Stone (*South Park*), Nick Park (*Wallace and Gromit*), Tim Burton and Bill Plympton all gained attention with shorts placed in Spike and Mike's Festival.

Perhaps one of the reasons that Spike and Mike has been able to remain true to its original vision is the absence of any outside influences, monetary or otherwise. "When people look at any of our numbers, where we play or what we've done, they should remember it was without rich parents, government grants or corporate sponsors. It's easy to

get big when you've got Nike behind you," remarks Spike.

The offerings at this year's installment of Sick and Twisted animation seem to have no problem filling the shoes of their predecessors. This year's releases included *Behind the Music That Sucks*, *Bad Phone Sex*, which features Chris Rock, *Harry Pothead and the Magical Herb* and a new piece from Bill Plympton entitled *Eat*.

In addition to the Festivals, Spike and Mike also aids up and coming filmmakers in the creation of new animated shorts. "We've produced about fifty-six shorts that we've made or helped make," says Spike. "We're always looking for the next *Rugrats*."

Filmmakers wishing to contact Spike and Mellow Manor should send in a video of their work to Mellow Manor Productions, 7488 La Jolla Blvd., La Jolla, CA 92037, USA.

The Future Is Open

What does the future hold



Eat by Bill Plympton recently showed in the Sick and Twisted Animation Festival. © Bill Plympton Studios, 2001.



Spike still carries on the tradition. © Mellow Manor Productions.

for this animated black sheep of the art house film circuit? Quite a bit, judging from what Spike has to say about it.

"We're planning another tour; we did really well with the merchandise on the last one. We're playing at Comic-Con in San

Diego; we always screen there and set up a booth. We have a book coming out. It's a coffee table book, biographical."

Spike also added the cryptic yet interesting note that... "We're taking a lot of meetings with people in the industry."

The passing of partner and cohort Mike Gribble in August of 1994 did not dampen the spirit of the Festival, though understandably it increased the workload and pressure on Spike.

"It's a lot of work. I'm at the point where I'm looking for a partnership with someone. It's like being a small fire station with a lot of fires to put out."

Paul Feldman is an L.A.-based freelance writer who has covered entertainment industry stories for on-line journals such as the Creative Planet community sites of Director's World and Cinematographer.com.

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Bonus HTML Features

Every on-line (HTML) issue of *Animation World Magazine* contains additional features not found in the download or print Acrobat version, such as QuickTime movies, links to Animation World Network sites, extended articles and special sections. Don't miss the following highlight that is showcased exclusively in this month's *Animation World Magazine* HTML version:

Mix and Match: Animation Techniques

Today's hybrids that combine traditional techniques and new digital tools are creating some fascinating looking animation. Fred Patten asks a number of innovators how they created their animation. Includes QuickTime clips!

http://mag.awn.com/index.php3?ltype=pageone&article_no=1427

Fresh from the Festivals: June 2002's Film Reviews

Jon Hofferaman reviews five short films fresh from the festival circuit: *Carmelo* by Jorge R. Gutierrez, Slava Ushakov's *Hara Mamburu*, *Kitchen Katastrophe* by Derrick Auyoung and Andrew Huang, *Red Vines* by Evan Mather and Pál Tóth's *The Sexual Life of Fireflies*. Includes QuickTime movie clips online at: http://mag.awn.com/index.php3?ltype=search&sval=hofferaman&article_no=1407

Lilo & Stitch is a perfect family film — and great entertainment for all ages. And yes, it's a "traditional, hand drawn, 2D" feature length cartoon, utilizing everything Disney animation does right in its best efforts. If this is the last shot traditional animation artists have before all Hollywood cartoons go CG, they couldn't ask for anything better to justify their stand. This is personality character animation done right; caricatured human beings we can relate to, way-out space creatures to laugh at and literal flights of fancy visualized with the flair that hand drawn, hand painted animated cartooning can claim as exclusively its own. *Lilo & Stitch* has humor, heart, style and art — with the highest standards we've come to expect from Walt Disney Feature Animation.

Back to the Basics

After last year's disappointing *Atlantis: The Lost Empire*, many pundits, this reviewer included, thought Disney may have lost its way. And that misstep, in the summer of *Shrek* and prior to a string of successful CG features (*Monsters Inc.*, *Jimmy Neutron*, *Ice Age*), didn't bode well for the house that Mickey and the Seven Dwarfs built. But Disney hasn't completely given up on its



Chris Sanders (right) and Dean DeBlois were the creative visionaries behind the film.

Disney's Magic Returns: *Lilo & Stitch*

by Jerry Beck



Here comes the happy family now – Lilo, Nani and Stitch. All images © Disney Enterprises, Inc.

traditional cartoon animation (yet), and its smartest move here was to place its trust in Chris Sanders and Dean DeBlois (co-directors & co-writers) giving this film a cohesive singular vision that's been missing in Disney features of late.

One of my biggest Disney complaints in recent years is that the character designs in each film don't mesh. *Atlantis* is an extreme example where the characters are from different movies and the storylines are bifurcated and inconsistent. *Lilo & Stitch* is wonderfully old-fashioned in its simple straightforward storytelling, charming characters and strong motivations. Not only did Sanders come up with the original idea for the film, but he worked in close collaboration with DeBlois to write the screenplay, storyboard virtually all

the scenes, record Stitch's dialogue and direct the film. The duo functioned as their own heads of story as well, expanding on a creative partnership that began with *Mulan*. This process ensured that the filmmakers' vision would remain constant throughout the many stages of production.

"We wanted to make a film that focused on the simplicity and warmth of the relationships," DeBlois explains. "*Dumbo* and *Bambi* were our two biggest influences because of the focused story and simplistic art direction. They had a purity and nostalgia that we loved. Some recent films have pushed to achieve technical marvels and emphasize dimension. We liked the idea of abandoning some of that in favor of emphasis on the character devel-

Lilo teaches Stitch all about "the King."



The timing and character animation is superb at every turn.

opment. We wanted to slow down the world a little bit and do away with the epic set pieces and the throngs of people so that we could deal with two characters and how they interact with one another."

Ugly Ducklings

Despite the film's marketing, it is really about the relationship of Lilo, an odd little Hawaiian girl and her sister Nani, a struggling 20-something adult woman unprepared to juggle the responsibility of caring for Lilo and manag-

ing her own life's affairs. Along comes "Experiment 626," who, crash-landing on Kauai, is mistaken for a dog and adopted by the lonely Lilo, who promptly renames him "Stitch." Pursued by intergalactic forces, Stitch is forced to learn right and wrong, and most importantly the meaning of "family," incognito on Earth. Meanwhile, Lilo uses her new pet to play, make mischief and imitate Elvis. Both are "ugly ducklings" yearning for acceptance by their own kind, who come together in their own world.

"We wanted to break some of the storytelling conventions," says Sanders. "One of the things we set out to do from the very beginning was to let go of the idea of good and evil. That's great if you're doing a fairy tale, but we wanted this film to have a different feel. Our characters have more shades of gray; they aren't all black and white. They embody human frailties. Lilo, Stitch and Nani are neither good nor bad. They're a mixture of those things like every human being. As a result of that, we got a more subtle and interesting mix of character relationships."

The comedy comes from many places. Stitch's view of Earth and its inhabitants is one source. Designed to be a monster, he's plopped into a suburb with no appropriate city to destroy. One hilarious sequence has him build a replica of San Francisco out of toys and materials in Lilo's room, then demonstrates what he would do to it. The reactions of Lilo and Nani to Stitch's behavior provide the animators with ample opportunity to draw facial expressions and body language that say more than any cheap one-liner.

Great Animation

"Animating Lilo was the most fun assignment I've ever had," observes Andreas Deja. "It was also the most complex. She is a character who has big issues. She thinks, she plots, she has deep emotions and you don't express those things with big-action poses. There is a tremendous degree of subtlety. My first drawings were very active so I had to learn how to scale them down. I spent a lot of time getting just the right expressions or looking for that one pose that could tell the story. That's hard to do in animation because



Cobra Bubbles and Jumba and Pleakley are just three supporting characters worth admission.

our medium is about motion and movement. It's always trickier to animate the more subtle characters and Lilo is super subtle.

"The reason why *Lilo & Stitch* is such a unique project is the depth of emotions that the characters have and the rich, interesting, unconventional and quirky relationships between them," adds Deja. "It's different from other material and has a very spontaneous feel to it. I have two sisters, a younger and an older one, and the relationship between Lilo and Nani rang true for me. I remember back home how the two of them were always yelling at each other even though they loved each other. These are real characters."

The Icing on the Top

The supporting cast is also filled with hilarious characterizations. Two words: Cobra Bubbles. The first sequence with social worker Bubbles is a classic bit of modern slapstick comedy. "Cobra Bubbles is a great example of a character who is complex," says Chris Sanders. "He represents a major threat to what's left of Lilo's family, but the audience realizes that he isn't trying to separate

them out of bad or evil intentions. He's simply doing what he's supposed to be doing. We're very proud of the fact that the film has a powerful emotional impact beneath its deceptively friendly look. In a sense it's very much like *Bambi* where you don't suspect that it's going to be as powerful as it is when you first look at it."

Two more words: Jumba and Pleakley. The two aliens sent to retrieve Stitch are cleverly designed and their actions never feel forced or clichéd. Even minor characters — a frog or a sunburned tourist for example — get big laughs doing practically nothing.

We are so used to CG now, that this film's simple flat artwork is a treat for the eyes. The refreshing watercolor backdrops remind one of classic 1930s and '40s Hollywood cartoons (to my esoteric eye, they closely evoke the elaborately painted scenics by Shane Miller at Famous Studios in the 1940s). CG is, of course, used in the film but mainly in the alien scenes and the space chases (perhaps an unconscious comment on CG being an invader to traditionally animated films?).

The only missing element is an original song score — but who's complaining? We've had enough cartoon musicals during the 1990s to last us a while still. The Elvis Presley tracks are an appropriate substitute.

Lilo & Stitch is the second feature film to be produced at Walt Disney Feature Animation Florida. The team of 300 artists, animators and technicians based there handled all aspects of the production, with the exception of digital painting. They did good. Real good.

Is there anything about *Lilo & Stitch* I didn't like? No. Go see it. It's a great film.

Jerry Beck is an animation producer and cartoon historian who is simultaneously developing a show with MTV Animation and writing a book for Harry N. Abrams Publishers. He also has a cool Website at www.cartoon-research.com.

Note: Readers may contact any *Animation World Magazine* contributor by sending an e-mail to editor@awn.com.



Sony Pictures Imageworks rose to the dual challenge of creating a swinging Spider-Man travelling through a virtual New York. All images unless otherwise noted are © 2002 Columbia Pictures Industries, Inc. All rights reserved.

"Spider-Man — Spider-Man — doing whatever a spider can."

In regards to the approach the effects team took on the new live-action blockbuster *Spider-Man*, the old theme song surely rings true. The folks at Sony Pictures Imageworks were given the daunting task of making a

man swing through gulches of city buildings, crawl up vertical walls, dodge super-charged throwing stars, along with various other feats of wonder, in nearly 500 effects shots. To add to the mix, it had to look as real as possible. Superhero flicks of yesteryear have been set in fictional surroundings — *Spider-Man* was set in the very familiar movie location of New York City. I talked to the film's animation director Anthony LaMolinara and visual effects supervisor Scott Stokdyk to find out the process in which the effects team approached bringing the man in red and blue to the big screen.

the impossibility of shooting the sweeping camera movements in real life. To get the look of the city as perfect as possible, the effects and production design team started off by surveying both Times Square and the Queensboro Bridge to gain accurate geometry and texture details. LaMolinara described part of the process of creating the cityscape as a pan and tile procedure. Approximately 25 images (or tiles) of the background environment were taken along a 180-degree axis and then were stitched together to create a half sphere for the action to move through. Afterward, other buildings were placed in the foreground and rendered as complete 3D objects. If you're asking yourself why this is interesting and why it's significant I'll tell you.

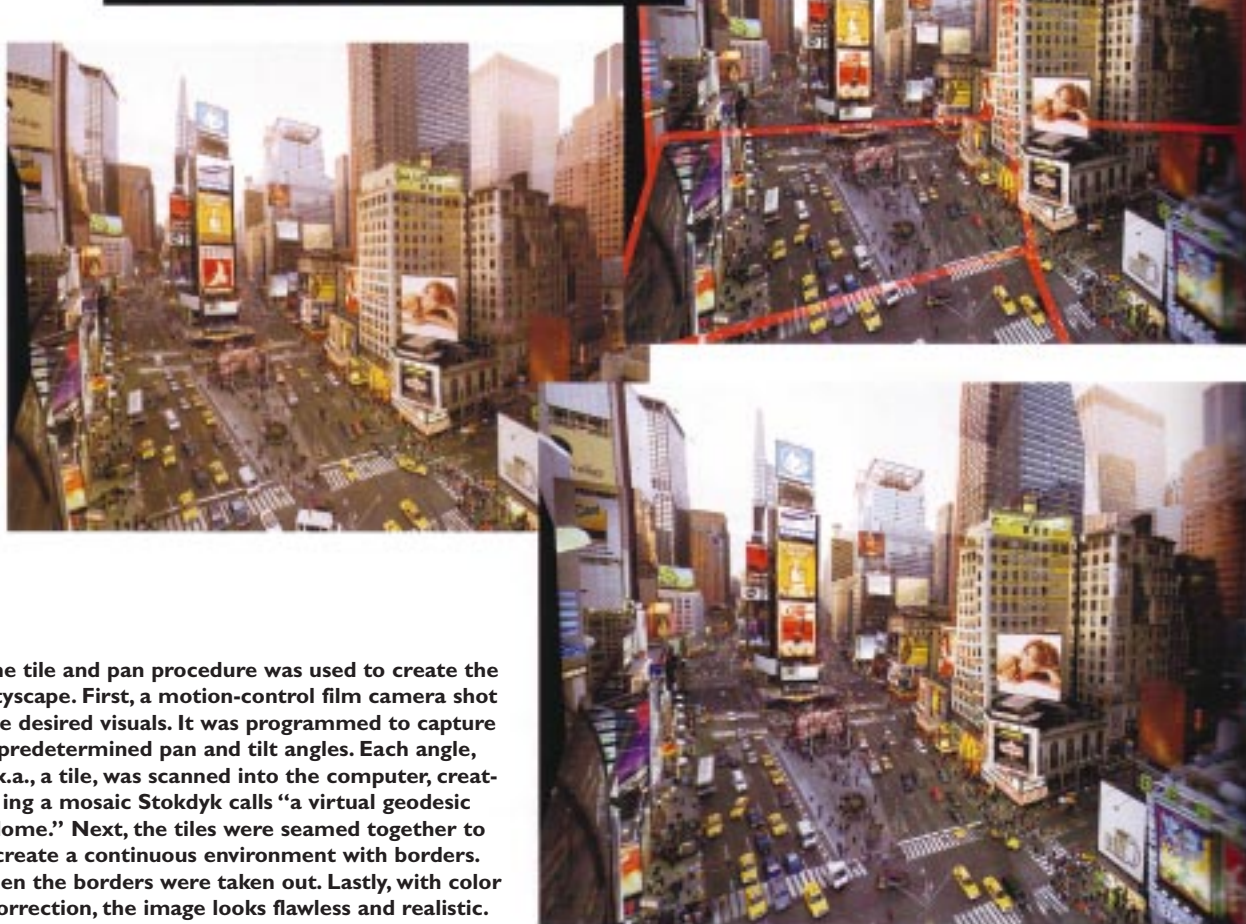
To create a complete city of 3D buildings would have taken an enormous amount of computer space and time. This tile and pan process saved time and memory space by limiting the amount of complete 3D items. The



Spider-Man's animation director Anthony LaMolinara (left) and visual effects supervisor Scott Stokdyk were key to the film's animated visual effects. © Sony Pictures Imageworks.

Re-Creating Reality

One of the toughest challenges was the creation of the virtual New York City setting. To achieve the appearance of Spider-Man swinging from building to building, moving away from the camera and toward it, the filmmakers were forced to create the landscape in the computer due to



The tile and pan procedure was used to create the cityscape. First, a motion-control film camera shot the desired visuals. It was programmed to capture predetermined pan and tilt angles. Each angle, a.k.a., a tile, was scanned into the computer, creating a mosaic Stokdyk calls “a virtual geodesic dome.” Next, the tiles were seamed together to create a continuous environment with borders. Then the borders were taken out. Lastly, with color correction, the image looks flawless and realistic.

reason the flat background works is because of the way one's eye registers perspective. When the camera moves past objects the perspective changes greatly when things are closer. However, the perspective of objects in the far background would stay relatively the same — thus the flat image is unnoticeable when moving through the foreground space.

Now that we understand more about how the settings were created we can look into how our hero was incorporated into them. The first step of creating the digital representation of Spider-Man had star Tobey Maguire and his stunt double's bodies scanned into the computer to create duplicate models. To create the movement of the character, LaMolinara

and Stokdyk said the animators watched both Tobey and the stuntman's movements. The video references of the actors were then used to sculpt the character's entire motion range down to muscle twitches and flexes. The effects crew even worked closely with the costume design team to create the silk-screen and sub-textures of the Spider-Man suit.

Bringing Myth to Life

At first acrobats from Cirque du Soleil were brought in as movement references. However, director Sam Raimi wanted to stress the inhuman quality of Spider-Man's superhuman abilities. Inspiration came from many sources including cats, insects and even another animated hero — Disney's Tarzan. Because so much of the swinging, jumping and crawling were up to the animators' imaginations, it came down to extensive trial and error testing to get the movement just right. For example, in one scene, Spider-Man swings from underneath a bridge to land on top of it. LaMolinara said the original landing was much harder, but Raimi commented that a spider would have landed much softer.



A cloth simulation program was used for the wrestling costume.

It's this collaborative work ethic that ran through the whole creation process. LaMolinara explains, "Sam gave us general ideas, but left a lot open for us as artists to experiment. Sam is very democratic. Why restrict ideas by telling someone exactly what you want?" The trial and error started out with creating simple rectangle shaped buildings based on the storyboards. Special effects supervisor John Dykstra helped the animators place the camera in the right locations for emphasizing character development and emo-



There was a lot of trial and error before Spider-Man's movements were perfected. The animators were inspired by felines, insects and Tarzan.

tion. With the growing use of camera movements being made within the computer, LaMolinara feels there should be a credit for digital cinematography.

Another aspect of the animation was to bring out the progression of Spider-Man's developing skills. Both LaMolinara and Stokdyk stressed that this was the most enjoyable part of the process because it was the first time they had the opportunity in a live-action effects film to develop a character arch through their animation. When Spider-Man first starts swinging from building to building, his movement is very erratic and herky-jerky, but by the end of the film his swinging is graceful. The animators did many physical tests to see what the force of swinging from elastic webs would be on the body. In addition, they mapped out the effects of various types of webs from thin ones to strong ones to very springy ones. Just to get an idea of the amount of time it took to nail the effects, the final web swing at the end of the film took 7 months to lock down the character and

camera movements.

Besides making the action look natural, the effects crew focused on every minute detail. One of the difficult scenes to create was the first scene when Spider-Man swings through the city. Because he's wearing his makeshift suit, the effects team not only had to determine the motion's effects on the character's body, but also on his loose-fitting clothes. Some of the detailing, however, did allow the animators to have some fun. In the burning building scene Spidey's webs wrinkle and burn like real webs in a flame, while in the Times Square scene, great attention was made to the feel and effect of landing on large hot air balloons.

I did confess to LaMolinara and Stokdyk that the virtual New York fooled me, but that I could tell that Spider-Man was digital. Stokdyk made two comments regarding his digital character. Firstly, the filmmakers did take some liberties with lighting, which could have led to an unreal look. This was done for two reasons. First reason was to highlight the

Details like the burning of Spider-Man's webs in this scene helped add credibility to the action.



character in the frame for dramatic reasons and secondly the animators discovered that when lighting was added to the initial character movement it made the action seem speeded up. Second is the fact that he moves like a spider more than a human. Seeing a human move that way is unnatural. Stokdyk said if you saw a guy in red and blue tights swinging between buildings at 80 mph, you wouldn't believe it was

real either!

LaMolinara is already excited about working on the sequel, which he said could feature such villains as Dr. Octopus and the Lizard. However what he's most interested in is "exploring Spider-Man's movements without the webs." With the first film's enormous box-office bankroll, I'm sure over the upcoming years, both LaMolinara, Stokdyk and the rest of the SPI crew will have

many more chances to experiment with your friendly neighborhood web-slinger.

Go even further behind the visual effects scenes of Spider-Man with the following book:

Behind the Mask of Spider-Man: The Secrets of the Movie by Mark Cotta Vaz. New York, NY: A Del Rey Book, published by The Ballantine Publishing Group, a division of Random House, 2002. 205 pages. ISBN: 0-345-45004-3.

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A Brief History of the Animated Horse

by Greg Singer

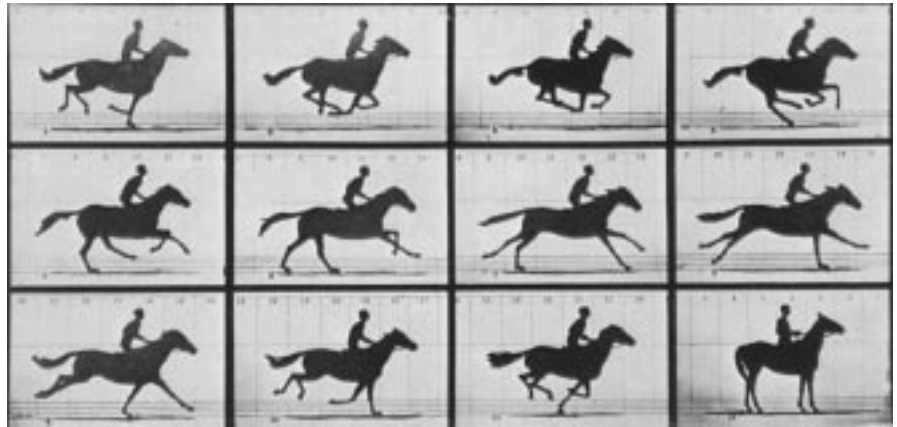
Animators have been horsing around with equine characters for quite some time. In fact, horses have been one of the staple (or rather, stable) characters figured in a great many animated films, with varying degrees of prominence and personality. There will probably be some neigh-sayers regarding the movies we have chosen or forgotten to highlight here, but perhaps you can forgive us as we pass over *My Little Pony*, or *Gumby's* pony pal, Pokey, too. Saddling ourselves to some of the well-known features of North America, we glance back over the shoulder of animation history in this nostalgic review of the animated horses of yesteryear.



The earliest known photo, circa 1825, is a reproduction of a 17th century Dutch engraving. Courtesy of France's National Library.

Hold Your Horses

We begin with a historical aside. Interestingly enough, the earliest known photographic image happens to be of ... that's right, a horse! More specifically,



Eadweard Muybridge's galloping horse, 1878. © Dover Publications.

the photo, by French chemist Joseph Nicéphore Niépce, circa 1825, is the heliographic reproduction of a 17th century Dutch engraving. (Heliography is a technique where light is used to project an image on to a photo-sensitive surface.) The historic photo recently sold to France's National Library for \$443,000.

Moving forward to the 1870s, photographer Eadweard Muybridge was hired by former California governor Leland Stanford to settle the controversy of whether a trotting horse had all four feet off the ground at any point in time. (Answer: yes.) Muybridge cleverly set up a line of cameras with mechanically tripped shutters, thereby capturing the individual moments of a horse's run. In lecturing around the United States and Europe, Muybridge made use of the zoopraxiscope, a primitive motion-

picture machine he had developed to project images in rapid succession. His famous work detailing animal locomotion, containing over 100,000 photographs, was published in 1887, and is still used as reference today.

Fifty years hence, with animated films in full swing, horses would come to fall into one of a few categories of animated beast. In most stories, the horses will serve a very peripheral role, as background characters, almost as props; in other stories, horses will assume a greater and meaningful presence, becoming more stylized; until, lastly, horses hoof their way to the forefront of the action, becoming central characters with inclinations and personalities all their own.

Evolution implies change, not necessarily progress. In cartoon terms, we are often fortunate to see both. Over the years, in

addition to their increasing narrative relevance and emotional intelligence, one might also contend that a stronger aesthetic design has been adapted to the animated horse. (It is important to note that not all evolutionary lines pan out. Some, of course, peter out. In corraling together his own ideas for a surreally imagined animated horse, Salvador Dali's development work for a Disney film was ultimately reigned in, never to see the light of screen.)



Salvador Dali's conception of a horse.
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The following is by no means an exhaustive survey of the horses of animated films, but merely a brief recapitulation from "then" until "now."

Horse Play

In Walt Disney's original *Fantasia* (1940), during the performance of Beethoven's "Pastoral Symphony #6," the viewer is introduced to a mythological countryside wherein plays a bevy of yellow, pink, blue, orange and black baby Pegasus. (We also watch as tiny blue and pink unicorns frolic like dogs, licking the face of a boy.) Above, the majestic white and black Pegasus parents gracefully cut through the clouds, with legs extended forward and backward in a soaring glide. Descending to the lake below, the adult Pegasus move through the water like overgrown swans, with their playful

kids entering the water like cannonballs. Soon, the family is joined by an entire herd of winged horses. Following some rainbow puddle splashing fun, the scene culminates with a different set of horses, with manes of fire, drawing the burning chariot of Helios, god of the sun, across the evening sky.



Winged horses from *Fantasia* (1940).
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In Disney's *Melody Time* (1948), a feature-length collection of short films, we see a spectrum of horse development and character. In "Johnny Appleseed," the horses are nondescript and faceless, essentially irrelevant to the story. They are merely beasts of burden helping to carry westward the early pioneering settlers. In "Once Upon a Wintertime," the horses are illustrated as very thin and proper, without any eyes, but only blinders. Again, they are there only to pull carriages and sleighs – though, by story's end, there is a brief heroic moment for the horses in saving a young woman from a waterfall.

More engagingly, in "Pecos Bill," Roy Rogers tells the cowboy folklore of Pecos Bill, with his horse Trigger neighing for him to remember Bill's own cartoonish horse, Widowmaker. Rogers assures Trigger that he wouldn't possibly forget Widowmaker, and indeed he couldn't. Widowmaker – who yodels with big fat lips and toughly hops around – is an

integral part of the story, sharing fully in its protagonism. When Bill finds a potential love in sweet Sue, a regular female buckaroo, Widowmaker gets teary-eyed and flustered, and sets out to foil the union. In a comical turn of events, tied down and not wanting to be ridden by Sue, Widowmaker rolls and cartwheels and tries to throw her from the saddle. Sue, unruffled, nonchalantly continues to powder her nose. Eventually, however, the mischievousness of Widowmaker prevails, and his friendship with Bill is left unimpeded.



Pecos Bill and Widowmaker from *Melody Time* (1948). © Disney Enterprises, Inc. All rights reserved.

Disney's *Cinderella* (1950) brings together the two kinds of horses we have already seen – the emotive, cartoonish character, with the more stylized, functional beast of burden. The film opens with a relatively well-rendered horse, dutifully and typically pulling a carriage. This contrasts with the stable horse, who is less realistic in his design, but who shows a general "background" concern (e.g., sadness) for Cinderella's plight. The expressiveness of the stable horse is seen again, as incredulity, when the fairy godmother chooses the mice over himself to become the ornately dressed white horses drawing Cinderella's magical pumpkin stagecoach. But the stable horse's momentary indignation

is quickly forfeited, bippedy boppedy boo, as he is called upon to serve as Cinderella's coachman. As with *Melody Time*, the stable horse is allowed one small (though forgettable) heroic moment, in stirring to action the sleeping dog Bruno, who subsequently chases away the meddlesome housecat Lucifer, so that the mice can get Cinderella the key, which unlocks her bedroom prison. By the movie's end, we see the two kinds of horses (stylized carriage horse and cartoonified stable horse) trotting together as one team, pulling the wedding coach.



The mice-turned-carriage-horses in *Cinderella* (1950). © Disney Enterprises, Inc. All rights reserved.

Animal Farm (1954), produced by deRochemont Films, featured Boxer the horse, a more complex and layered character than any previously animated. Though his design is very simple, Boxer is a character of integrity, strength and intelligence (why, he could read the alphabet!); and he is a source of admiration among the other animals. As the narrator of the film explains, while Boxer worked hard under his former caretaker, Mr. Jones, when he was working for the collective good of his comrades, he was like three horses in one. Through his tireless effort and commitment, Boxer sweat and wept to build the success of the animal-run farm, and to oust and defend against their



Samson from *Sleeping Beauty* (1959). © Disney Enterprises, Inc. All rights reserved.

human oppressors. Unfortunately, as the pigs of the farm became more greedy and privileged, they began to accuse the other animals of treason wrongfully. Boxer angrily neighed his dissent. And though he continued to work with devotion, even with wounded hoof, to repair the windmill the humans had destroyed, by the time Boxer lay sick from an injury he sustained, the pigs tragically chose to sell him off to the glue factory. The sad irony is that, in originally mustering Boxer's support and enthusiasm for the revolution against the humans, the pigs had asked him, "When the last of your great strength is gone, what then?"

Disney's *Sleeping Beauty* (1959) arguably ushered in the era of the sidekick horse, complete with its own full-blown and full-grown intelligence, will, emotional life and distinguishing signature look. The prince in the film talks to Samson, his horse, and Samson not only understands and responds, but the animation strongly conveys his silent inner personality. Herein we see a marriage of the stylized, more physiologically accurate drawings of horses, with the expressiveness of earlier, cartoony characters.

Charlotte's Web (1973), produced by Hanna Barbera, is a nod to the past, in that its horses are mostly just background characters, pulling plows, standing around the stable or grazing on the hillside. (Though there was one song to which they "happily" contributed.)



Philippe from *Beauty and the Beast* (1991) said more with his ears and facial expressions than some people do all day. © Disney Enterprises, Inc. All rights reserved.

Disney's *Beauty and the Beast* (1991) again puts forward a strong hoof in re-imagining the horse as an important and meaningful character within the film. Philippe is full-bodied, willful, uniquely designed and emotionally expressive.

Disney's *Hercules* (1997) introduces us to Pegasus, again ... for the first time. Here, the flying horse continues the tradition of combining a stylized design with

a strong personality. Through aerial acrobatics, bouncing around, head-butting, wrestling and high-fives to Hercules, we see a relationship reminiscent of the one between Pecos Bill and Widow-maker. The jealousy of Pegasus toward Hercules' encroaching love interest, Megara, is also echoed through the horse's playful and mischievous taunting of her. During one comical moment, Pegasus even blows out a flaming wisp of Hades' hair – and yet, despite all of this, he also contributes heroically to the story. Pegasus is not merely a prop, but an integral full-fledged character.

Disney's *Mulan* (1998) brings more of the same, with an elegant, angled design for the main black horse, Khan. Again, he contributes memorably to the story – for example, spitting and stomping on Mushu the ancestor dragon on a couple of occasions. While the horses for the invading Huns were vicious and functional in their design, but not emotive, the stampede of the Hun army down the snowy mountainside is remarkable for being the first large-scale computer generated horse scene.

Pixar's *Toy Story 2* (1999) takes the computer generated horse in a completely different direction, hearkening back to the earliest days of cartoon personality, with Bullseye having some of the characteristics (e.g., loyalty and slobbering enthusiasm) of an affable dog. By now it is well established that horse characters often can and do play a role in the heroism of the film, and in helping to rescue Woody and Jessie from the airport runway, Bullseye certainly does his small part to "save the day."



**Pegasus from *Hercules* (1997), a unique half-bird, horse hybrid.
© Disney Enterprises, Inc. All rights reserved.**



Khan the horse from *Mulan* (1998). © Disney Enterprises, Inc. All rights reserved.



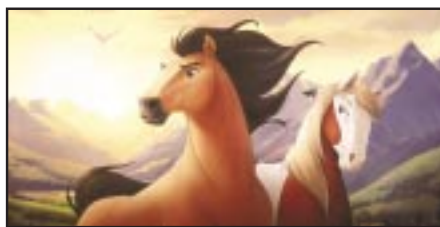
Bullseye from *Toy Story 2* (1999). © Disney Enterprises, Inc. All rights reserved.

DreamWorks' *The Road to El Dorado* (2000) is one of the best character animated films yet made. While originally billed as a buddy movie, Altivo the horse can

be considered a necessary third wheel for the duo of Tulio and Miguel. Stylized and intelligent, Altivo forwards along the story, for example, in chasing an apple over

the railing of the Spanish voyage ship; in kicking the wall during the ball game, in *El Dorado*, to secure the winning goal for Miguel and Tulio; and in leaping to free the sail and thus the departing ship from harm's way, as a collapsing pillar closed the secret city of gold to the marching conquistadors. While most animated horses avoid the dreaded "Mr. Ed" syndrome, Altivo does take up human language on one occasion, joining his companions in awed, marveling chorus, when he says, "El Dorado..."

While *Shrek's* Donkey falls outside the immediate purview of this article, he is still notable for having such a prominent, heroic role in the film – and for talking! It is interesting to note that by 2001, "the horse sidekick" is such a well-known element of the "typical" animated feature that when *Shrek* decided to break all the usual conventions, it punned the "mighty steed," turning the norm into a helpful but wisecracking, slightly neurotic, pushy donkey.



Without a spoken word, Spirit and Rain from *Spirit: Stallion of the Cimarron* (2002), kept audiences captivated. © DreamWorks SKG.

Lastly, then, our survey concludes with DreamWorks' newly released *Spirit: Stallion of the Cimarron*. The film begins with the birth of a foal, Spirit – and perhaps this is fitting, in that the film also represents the birth of a new kind of animated horse. Unlike other films to date, horses are not just integral characters to the story, they are central to it.



Altivo from *The Road to El Dorado* (2000) had some scene-stealing reactions. © DreamWorks SKG.

Through the first-person narrative perspective of Spirit, we glimpse inside the mind and motivations of the horse protagonist, explicitly. While voiceover helps to contextualize the story, careful attention and conscious manipulation of the details of the horses' body and behavior work to communicate thoughts and emotion. The animated horses within *Spirit*, including Rain, achieve a level of heroism and sophistication unmatched in earlier films; as well as successfully bringing to life the tradition-ally drawn and computer gene-rated forms of the animal.

Wins By A Nose

Back in the day, when characters were more a bouncing bricolage of happy circles and hoses, animators didn't have to worry so much about all of the underlying business of muscle and bone. Nowadays, we see the gamut of characters – everything from the plush design of *Toy Story 2's* Bullseye to the physiological accuracy of DreamWorks' Spirit.

Evolution, please remember, is not the plodding, purposeful march of creation, but rather a ramifying result of happen-

stance and circumstance. Different branches of an evolutionary tree can and do coexist as contemporaries, much like humans are contemporaries of chimpanzees, and one did not actually evolve from the other (as is sometimes the misconception).

As with theoretical biology, so too with animation history. The categories of animated horses do not imply or predict one another. Rather, they are all extant today, depending on the needs and circumstances of the story.

Greg Singer is the eohippus of the hippocampus, and recognizes that horses are better than wishes. He wishes he had a horse.

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Star Wars Episode II: ATTACK OF THE CLONES

Catching Up With Rob Coleman, Animation Director

by Karl Cohen



Combining digital characters and real actors in the same shot truly put the ILM team's digital artistry to the test. Here, Obi-Wan Kenobi (Ewan McGregor) talks to Dex in a diner. © Lucasfilm Ltd. & TM. All rights reserved. Digital work by Industrial Light & Magic.

The latest *Star Wars* feature is a remarkable technical tour-de-force. Almost every shot in the film contains some digitally created element, whether it be a background, a vehicle, a prop or a foreground character. Of the approximately 2,000 shots in the film, 928 of them contain characters created by computers. That comes to about 69 minutes of screen time.

It took a team of 60 animators and another 340 artists and technicians at George Lucas' Industrial Light & Magic (ILM), San Rafael, California, to create all the post-production elements in this film. Besides animators, the crew included technical directors, modelers, view painters, composers, miniature artists and lots of other specialists.

When *AWN* was invited to

interview Rob Coleman, the animation director of *Star Wars Episode II: Attack of the Clones*, we wanted to learn about his role in the production, along with how a movie of this scale is broken down so that it can be made. Who decides what techniques will be used to achieve the effects for which the script calls? Where did they use models instead of computer-generated backgrounds? What was animated using Macintosh computers? Where did they use motion-capture?

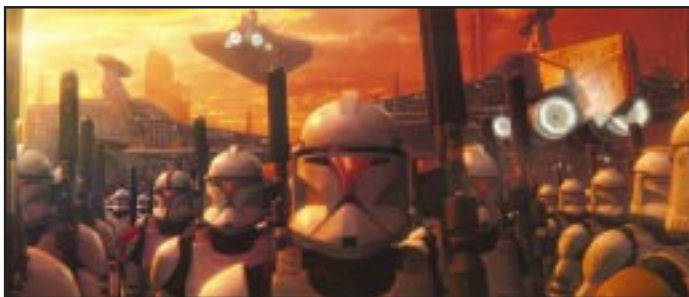
Coleman says George Lucas begins to make major decisions almost from the start in the pre-script phase of the production. Lucas tends to begin his *Star Wars* projects by giving the art department and production designers at Skywalker Ranch (a magnificent facility in a hidden valley in rural

Marin County, California) an idea of the worlds he wants to visit in the movie. "In this movie, we have a world completely covered with water and we have another world that we called 'the rock world' until we were given the name of it. In each of these worlds, we meet creatures that have not been seen before in the *Star Wars* universe. I'm not in the early meetings where George describes verbally what his vision is, where his imagination is leading him. These meetings are with his production designer Doug Chiang, the design director, and other designers and illustrators working with him." They then create hundreds or thousands of drawings for each idea discussed. It might take one month or several before, "George decides, yes, that is what that character will look like, that's the costume they will wear, that's the building they are going to stand in and that's the vehicle they are going to fly in."



Animation director Rob Coleman describes the first task on *Episode II* was to define the technical "gotchas." Photo credit: David Owen.

"At that point, I'm invited out to Skywalker Ranch with other key creative people from ILM, to have a presentation of the art work. The first meetings of *Episode II* involved John Knoll, one of the visual effects supervisors, and myself. We had worked on *Episode I: The Phantom Menace* together. We attended a series of small, hour long, meetings where



The photo-realistic backdrops in the Clone War were all created digitally. © Lucasfilm Ltd. & TM. All rights reserved. Digital work by Industrial Light & Magic.



Creating realistic movements and reactions are key to making digital action sequences like this one from the Clone War credible. © Lucasfilm Ltd. & TM. All rights reserved. Digital work by Industrial Light & Magic.

they presented some of the characters, some of the creatures and some of the environments. We saw rough pencil drawings and beautiful production paintings. They also showed us small little maquettes (statues) of the characters.”

“What we were interested in at that point was what were going to be the technical ‘gotchas.’ They are the things that an artist can do with a flick of the wrist, that will take a team of five computer scientists six months to try and figure out how we are going to do it. Gotchas are things that are technically impossible to do. A good example from *Episode I* is when the script said, ‘The Gungan army marches out to meet the Droid army.’ One sentence. It took us 10 months to figure out how to do it. They were innocent lines in the script and they were certainly innocent drawings on the wall. You might say, ‘Isn’t that interesting?’ until you try to figure out how we are going to get that to work.”

The Number One Challenge — Elaborate Costumes

“One of the first things that we noticed when we first met with George was the very elaborate costumes that these digital characters were going to be wearing. We were happy with where we had gotten with digital cloth-

ing on the first movie, but we realized immediately that clothing would be at the top of our technical challenges list for *Episode II*.”

“In the *Star Wars* world, we have digital characters that are composited beside real people. In a film like *Shrek*, everything is animated. In *Star Wars*, we have digital characters living in the ‘real world.’ The audience can compare Natalie Portman’s beautiful costume to Yoda’s robe in the same shot, but Yoda is digital and his clothing is not real. It’s virtual. The audience has to see them as equal. It has to have the right weight, the right billow, the right follow through. The audience has to believe that these two characters are existing in the same space at the same time. If they don’t, we have failed as special effects artists.”

“It’s a very high bar to get over. We walk around all the time observing people wearing clothes so we have a very rich understanding of silk, burlap, leather and how other fabrics look when they are moving. When we apply that to digital characters we have to be amazingly accurate. That was our number one technical problem.”

Challenge Number Two - Digital Environments

“The next thing we focused

on when we saw the beautiful production paintings of these worlds was: how elaborate were the cityscapes and the scenery going to be in this movie? At that point, we were informed at how little was actually going to be built on the stages in Sydney. John [Knoll] and his group of people began to work on how we could improve our digital environments. John and his team worked for months trying to perfect that.”

“One sequence ILM is proud of is a chase through a cityscape early in the film. At the other end of the spectrum, Ben Snow, another one of the visual effects supervisors, worked on the Clone War. He created photo-realistic rocky environments including canyons, buttes and plains.”

Challenge Number Three - Rigid Body Simulations

Rigid body simulations is the creation of believable weight and gravity on objects that are falling and exploding. Coleman says, “Imagine that you have a clone who is running along and gets hit by a concussion wave. He has to fall and ‘clatter’ on the ground. That’s very difficult for an animator to animate, to get the right bounce and weight without spending a great deal of time on it. The team that worked on the clothing simulations came up with

solutions so we could have vehicles exploding and pieces flying off them or droids hitting the ground and clattering. We used our new software to create realistic reactions every time two digital objects hit each other. It's amazing how many times that shows up. George knows his audience."



CG model supervisor Geoff Campbell (left) and animation director Rob Coleman discuss how to preserve the charm of the puppet Yoda from *The Empire Strikes Back* while animating him digitally for *Episode II*. Photo credit: David Owen.

Animating Yoda

Coleman says, "The biggest technical challenge for me was animating Yoda. That was due to Frank Oz having created that character in *The Empire Strikes Back* as a puppet that we all know and love. This time, Yoda, who is supposed to be 2'11" tall and 874 years old, is much more active and prominent. He actually runs and has a light saber battle. So he had to be a fully animated character in this film, not a puppet. That decision was made early on because George indicated Yoda was going to have to move quick-

ly. In his earlier screen appearances, he moved slowly with a cane. I wanted to make sure this character was reminiscent of our recollections of what he was like in 1980 and 1983."

"I studied Frank Oz's work from those classic movies with a great team of animators. Geoff Campbell, the modeling supervisor on this film, built a beautiful digital model of Yoda. We took a great deal of care to animate him carefully and lovingly so he remained true to his character. I spent a lot of my time supervising his performances in the movie because he's in a lot of it."

When the feature was being shot in Sydney, Australia, Lucas had Coleman present so he could be consulted about how the post-production images would work with what was being filmed. Lucas would ask him from time to time what Yoda's movements would be in a scene so he could direct his actors properly. Coleman says, "We had a lot of discussions about how slowly Yoda would be speaking. We didn't have the luxury of having Frank Oz there with us on the set when we were shooting the live-action. [Oz provided Yoda's voice in this and earlier films.] We had one of the actors perform his lines off-camera so we could get the right cadence in the scene. That worked out really well."

"We had a stand-in rubber Yoda puppet from a previous movie so we could see what the lighting was going to look like. We photographed that puppet sitting or standing in the scene with the lights on it so the technical directors and the composers would have a really great reference frame when it came time to light the digital Yoda."

Animation Done On Macs

Despite the price differences between high-end Silicon Graphics workstations and Macintosh products, Coleman says, "When you are dealing with top level artists and technicians, they can pretty much create the same look and feel on any platform. Some platforms have better modeling packages, some have better renderers, and some have better atmosphere. We have a good library of in-house software that we have written and off-the-shelf software that we have bought, so that we can create the imagery that we need."

There is "a tiny, tiny amount" of Mac-based animation in the film. Its use was based on the availability of Billy Brooks, who animates on a Macintosh system. Coleman says, "The computer graphics department here is enormous. At any time we can be working on from 5 to 10 different films. *Star Wars* was always the



An all digital Yoda for the new century. © Lucasfilm Ltd. & TM. All rights reserved. Digital work by Industrial Light & Magic.



The flying R2-D2 was created using Macintosh computers. Even George Lucas thought it was a prop! © Lucasfilm Ltd. & TM. All rights reserved. Digital work by Industrial Light & Magic.



Is C3PO a digital image or a hard surface model here? With ILM's mastery in both CGI, puppet and model making, it's hard to tell. © Lucasfilm Ltd. & TM. All rights reserved. Digital work by Industrial Light & Magic.

biggest project, but it was never the only one. Some times we are fully booked. We do have some talented artists like Billy Brooks who worked on the R2-D2 shots using Macintosh. It looks the same."

Not Everything Was Done With Computers

"When we are pre-planing, we are looking at expense, but we are also looking for a balanced crew. It doesn't service us very well to give all the work to the computer graphics department. We don't have the manpower to handle it, and we have very talented people over in the model shop." He says that *Episodes I and II* have more miniature models in them than there were in the original *Star Wars* features.

Physical models (real, not virtual) "were used in the Queen's city on the planet Naboo in *Episode I*. On this film, there was some model work used in the city of Coruscant, in the droid factory, and in the sections of the big arena battle supervised by John Knoll. There was an enormous arena built that might have been 14 feet high and possibly 65 feet wide. It was huge. We even joked, 'When is a miniature not a miniature?' That miniature was repre-

senting an arena that held 100,000 creatures. Then, we put CGI characters in those stands."

Another miniature set was created at the last moment for "part of the battle that we call the Dune Sea, a sand dune sea. That was a miniature set shot on one of the huge stages here at ILM. That section was added so late in the film that the decision was made to create that as a real miniature because there wasn't time to create a digital version of it."

ILM does a lot of work where they combine several techniques in a single shot. They may have a matte painting, miniatures in the background and can add digital actors along with real actors shot against blue screen. The era of glass mattes is ancient history as the computer can do the same work.

"Some people in the digital matte department have been with us for 15 or 20 years. Paul Huston has been with us 25 years. He made the transition from traditional matte painter to digital matte painter many years ago. They still use some of the old techniques. For example, they still shoot miniatures as elements that are going to go into the matte painting and then blend them in. Another thing Paul and some of

the other artists do now is what we call 3D matte paintings. They are matte paintings that allow you to do compound camera moves in them. There is some 3D geometry in them that allows you to have parallax on a building. Now you can pan around a building a little bit or dolly into a shot better. It is a modern version of what Disney created with his multi-plane camera stand."

Mechanical Puppets Or Animatronics

In *Episodes I and II*, there are people wearing masks that have radio controlled puppet operators running them. In the new film, there is "a bad guy who wears a rubber head that has radio controlled eyes and mouth articulation while the actor walks around and can move his arms." These devices were not operated by ILM crews. Nick Dugman operated this type of system in *Episode I* and Simon Williams from England, controlled them in this film. They were shot in Sydney.

R2-D2 and C3PO are what ILM calls hard surface models. The models have radio controlled features as well as actors inside the suits. In *Episode II*, there were a couple of scenes where it was either impossible for R2-D2 to be operated by radio control and/or for Kenny Baker to move safely inside the model. Coleman says, "There are 2 scenes I can think of right off right away that were impossible or too dangerous to do. One was a scene of R2 walking up stairs. The prop could never do that. The other one is R2 flying. It made sense to do a digital version of him as he was going to be flying through a digital environment. It is totally photo-realistic. You'd never know it was a digital

model. We even fooled George. He thought we photographed it!"

Similarly, there are some scenes where C3PO had to do dangerous stunts. "We had two concerns. One was hurting Anthony Daniels, the man inside, and the other was hurting his suit. He might end up breaking his skull if he fell over. That is always a concern as Anthony can hardly see out of that head. There are always people around to catch him if he ever tripped. There are a couple of scenes where C3PO is in some pretty elaborate stunt situations that were really dangerous, so it made sense to create a digital version."

ILM refers to both of those characters as hard surface models as "they don't have any flexible clothing. C3PO has some soft material between the joints, but that's pretty limited. In both cases, we have beautiful reference frames as you can photograph the suit from every angle under ideal lighting. We give the information to what we call our 'view painters,' the people who create the texture maps." Coleman asserts that one can't tell the difference between the computer generated image and the footage of the model: "You just cannot tell."

A Motion-Capture Finale With A Cast Of Thousands

Most of the clones in the film are moved using motion-capture. They had to be moved in a realistic way as they are supposed to be human clones inside of armor. There are shots of clones marching, walking, standing and shooting. In some shots, there are thousands of clones fighting thousands of droids. It would have been too time consuming to try to animate those sequences by hand.



**Motion picture capture supervisor Jeff Light directs "droid" James Tooley.
Photo credit: David Owen**

With so many elements, a procedural program where the models were automatically moved in battle would surely have been a blessing. However, for Coleman there was no such short cut. "Unfortunately, we haven't reached that level yet. We did a lot of motion-capture sessions where we had people running and shooting, running and falling, jumping and shooting, and marching. We created a library of elements with all these different actions, and then a choreographing team choreographed the fights."

"I think of the big complicated shots as having three levels. We have the foreground action that most of the audience is going to see. We have the mid-ground level where you may perceive some of the action. The background action is really just there for texture. You can't see what's going on there unless you still frame it on a DVD." In battle scenes, there may be upwards of six droids or six clones in the foreground. The mid-ground may have something like 20 that are pulled from the library of elements. When they build a mid-ground scene they may have 15 or 20 stock sequences to work with. In the background are what ILM calls "sprites." They are tiny bits

of action applied to low resolution clones. You will never be able to tell the difference because they are not big enough to see. So the foreground is mostly hand animation, the mid-ground procedural animation and the background is simply pulled from key frames and motion-capture action. Nobody has to retouch the artwork. If feet are sliding on the ground or arms are passing through somebody's torso, nobody will know. They are just there for background motion.

Coleman says, "We are thinking about the same kinds of things that everyone has been thinking about since people began making movies. Where do we want the audience looking? In the layout of the shot, what is the flow of the action? We have a very educated idea of where people will be looking because we are forcing them to look there. We make that section of the shot look good and then we layer in everything else. We storyboard the action just as you would on any animated film. We create animatics, so we prove to ourselves in a rough cut they're all working. And then, we layer in the final animation. We are not surprised when we see the final results."

Summing It Up

Coleman summed up his



Yoda and Obi-Wan Kenobi (Ewan McGregor) with Jedi children on Coruscant in this shot that successfully combines digital work with live actors. © Lucasfilm Ltd. & TM. All rights reserved. Digital work by Industrial Light & Magic.



Rob Coleman is most proud of how the digital image of Yoda captures the personality of the original puppet character. © Lucasfilm Ltd. & TM. All rights reserved. Digital work by Industrial Light & Magic.

involvement with the film by saying that pre-production was getting an idea of what is coming, production is being there to witness how the original ideas get changed and post-production is seeing how it all fits together and how it changes once again. He is used to changes. Some happen when they are shooting. George Lucas has been known to restage a scene so one that was planned as a series of close-ups ends up being long and medium shots. That means more characters, additional set details and other elements may be needed to complete the scene. Coleman is used to seeing the environment change from the pre-production paintings to what George wants when they

are filming. "It might be more characters, more windows, more architecture. In terms of characters, costumes can change from the drawing board to the final execution because George may make an aesthetic decision to change the look of a digital character."

Post-production has to deal with what was actually recorded and Coleman reminds us that everything was shot with digital cameras — no film was used in the making of *Episode II*. The directors' plans for a scene may have to change if an actor isn't looking where he or she was supposed to look. In post, changes occur when they drop in the digital actors and Lucas realizes the scene will play better if... Coleman says, "Shots can become more complicated or change completely based on the flow of the movie, editing decisions or how the story is being told."

While we didn't talk about *Episode III*, one brief comment suggests what we might see in the future. Coleman talked about Lucas adding additional scenes and animation after *Episode II*'s live-action photography was supposedly completed. Lucas is accustomed to going back to the Skywalker art department and having them "design new characters, new vehicles, new costumes that we didn't think we needed, but

now we do. Or George will write a new scene and it will be shot a year after we shot first unit photography. That happened. There was a whole room that was added about a month and a half ago. [Coleman was interviewed two weeks before the film opened.] A new scene was written and the actor was shot again. We had to quickly create a digital background and I had to put digital characters in with new lines of dialog. George said, 'If I had known you could turn a shot out so quickly I would have added more stuff.' Having all these great toys and great talented artists here, George certainly has fun working with us." I think we can expect even more of the impossible in the next film.

The biggest accomplishment of which Coleman is most proud? He replies without hesitation, "I'm most proud of what our team was able to do with Yoda. I think he's beautifully animated and I think we were able to remain faithful to what Frank Oz had established."

Karl Cohen is President of ASIFA-San Francisco. His first book, Forbidden Animation: Censored Cartoons and Blacklisted Animators, is published by McFarland Publishers. He also teaches animation history at San Francisco State University.



Jeff Light, James Tooley and Michael Sanders (left to right) on the motion picture capture stage. Photo credit: David Owen



Yoda

As We've
Never Seen
Him Before

by Bill Desowitz

The CG version of Yoda allowed the animators to add depth and expression to his eyes. All images © Lucasfilm Ltd. & TM. All rights reserved. Digital work by Industrial Light & Magic.

One of the biggest animated challenges in *Star Wars Episode II: Attack of the Clones* was making an all CG Yoda for the entire film — a first for the franchise. In *Phantom Menace*, he was only CG in two wide-angle shots of him walking. A combination of puppet and CGI was also considered, but after a successful test, George Lucas and his staff at Industrial Light & Magic decided to go all animated when they realized they could have a lot more control.

From Puppet to CG

"We considered Yoda from *The Empire Strikes Back* and asked, 'What makes Yoda Yoda?'" explains Tim Harrington, senior computer graphics animator. "Frank Oz's puppetry, subtle nuances, the heavy eyelids over the pupils, how his ears jiggle. We were going after the essence of Oz."

Initially, the digital Yoda was greenlighted by animation tests done by Linda Bel, Hal Hickel and Kevin Martel. As production began, animation leads Linda Bel, Tim Harrington

and Jamy Wheless supervised a team of over 10 animators to complete the Yoda shots.

"We didn't want a little green man," Harrington adds. "But we didn't want him too perfect, so we dialed back a bit. Softimage is part of the pipeline for character animation, so we used SGI hardware. However, in mid-production, we used Linux machines, which are much faster than SGI 02s."

The technical directors matched the color and texture of the *Phantom Menace* puppet in creating the CG Yoda, which is much warmer than the blue and dark-looking one from *Empire*. At the same time, animators

key-framed the character traits of the Yoda puppet from *Empire Strikes Back* into the digital Yoda. "We added more expressions to the eyebrows and the looks on his face," Harrington offers. "We had a lot more control over the eyes with the CG Yoda. More eye dart. His thoughts are more mischievous and intelligent to counter what he's saying. If you notice, puppets have a lack of focus in their eyes. It really improved the performance. His looks suggest a far more cunning character than is suggested when he speaks. That dichotomy comes through a lot more clearly than in *Empire* or *Phantom Menace*."



Making Yoda a master swordsman was a challenge for the animators.



The digital progression of Yoda – from wireframe, to lo-resolution render to final composite.

THE Scene

Not surprisingly, most of the effort went into the battle with Count Dooku. Lucas presented an animatic of Yoda fighting with a light saber. “George was adamant that Yoda be a master swordsman,” Harrington stresses. “The fan in us thought it was cool, but the artist in us became cynical. How do you pull this off and not have it look ridiculous? Does Yoda create multiples of himself? Does he fly? Does he use the Force? One of the ways to

make it believable was to lead the audience on — to show them that here comes something that you’ve never seen before. When he pulls out that light saber, it’s a very dramatic entrance. George said it should be a showdown like in a Western, and then suggested, ‘What if he pulls at his robe to reveal the light saber?’ It was a technological nightmare. Cloth is so difficult.

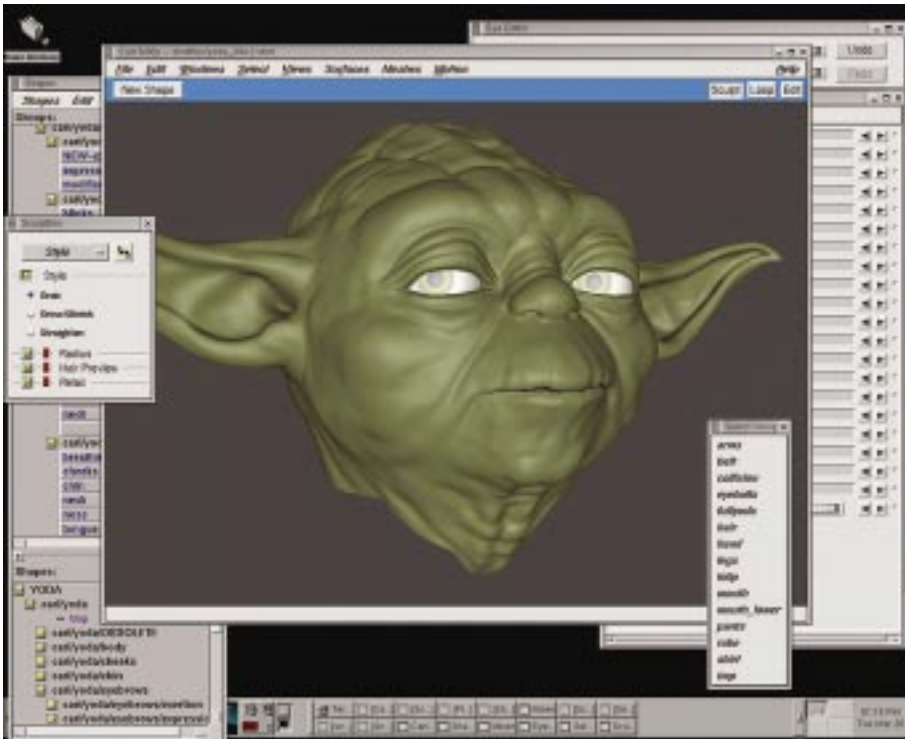
“I animated Yoda pantomiming the movement where he grabs the robe. I figured out

the exact frame he touches it with the technical animator and we tacked the cloth to Yoda’s hand to give it that Western feel.”

Indeed, it’s a moment we’ve all been waiting for, but certainly not from Yoda. Lucas and his animators decided to start with a test of wills using the Force, as Yoda absorbs lightening and then repels and hurls a series of heavy objects. For this part of the sequence, the animators referred a lot to *Empire* to figure out how Yoda uses the Force during Luke Skywalker’s pivotal training sequence.

“We had a lot more control over the eyes with the CG Yoda. More eye dart.”
— Tim Harrington

But inevitably the two Jedi masters do battle with their light sabers as in a samurai movie. “The sequence took three months with a team of nine animators,” Harrington adds. “We choreographed the moves in a reverse way, like solving a puzzle. Looking, fighting, countering Dooku’s moves. Each one looked like a check. We used background plates of Lee and his double matched to Yoda. The hard part was figuring out how Yoda fights because he’s so small. We looked at a bunch of films and came up with the moves. We looked at tennis, we looked at samurai, we looked at acrobatic power moves in the circus. *The Phantom Menace* DVD was also very helpful because it had some cool new Jedi fighting moves that were explained in the supplementals.



Getting Yoda's facial expression was a priority for the animators. Here's a screen grab from the Linux Platform showing ILM's proprietary facial animation software.

One of them was Obi Wan holding the light saber with two hands. We thought that would be good for Yoda too.

"George pointed out that Yoda's too small to stay on the ground, so he should do a lot of jumping and spinning. He should be more acrobatic than the other Jedi. But one of the

first things we questioned was how to attack Dooku? Does he go for the legs? No, George said he wants to kill Dooku, so he should go for the head and the chest."

However, with all of the spinning that Yoda does, it was easy to crash the computer — what they call "gimbal lock." When an object spins that much it

confuses the computer, so ILM created a special rig using directional and up vector constructions. "This allowed us to control how he was rotated without confusing the computer. We had three rotation axes. It was a very daunting sequence, to say the least."

Then, after the fight, Lucas wanted to bring the viewer back to the reality of a more familiar Yoda, so he came up with the idea of Yoda being so wiped out that he picks up his cane and slowly drags it on the floor. "We wanted the audience to feel that it was now in the presence of the same Yoda we know and love."

Bill Desowitz is the former editor and managing editor of Animation Magazine, and writes about film regularly for the Los Angeles Times and the New York Times.

Note: Readers may contact any Animation World Magazine contributor by sending an e-mail to editor@awn.com.



The warrior Yoda.



Making the CG R2-D2 move convincingly was the biggest hurdle for the *Episode II* team. Here, they send him flying.
 © Lucasfilm Ltd. & TM. All rights reserved. Digital work by Industrial Light & Magic.

It's appropriate that the animation department at Industrial Light & Magic responsible for R2-D2 is known as the rebel unit. That feisty little robot is quite the rebel, and in *Star Wars Episode II: Attack of the Clones*, he is required to do a lot more physical activity than accustomed to: flying, climbing stairs and saving both his buddy, C-3PO, and the new heroine of the franchise, Senator Padme Amidala (played by Natalie Portman).

R2 Gets A Boost

So it should come as no surprise that George Lucas demanded an all-new computer-modeled R2-D2 to append the motor-controlled practical model that's been a staple of all the previous films. The job went to

Billy Brooks, a rebel unit artist and *Star Wars* fanboy, along with 15 other artists. "We are generalists," Brooks explains, "who are capable of doing all aspects of animation: modeling, texturing, animation, lighting, rendering and compositing. I computer-modeled R2-D2 for one CG shot in the middle of *Phantom Menace*, but I revamped the model and got it ready for 17 shots in *Attack of the Clones*. It took two weeks to remodel the head and four weeks to make sure the look of the metal matched the practical model."

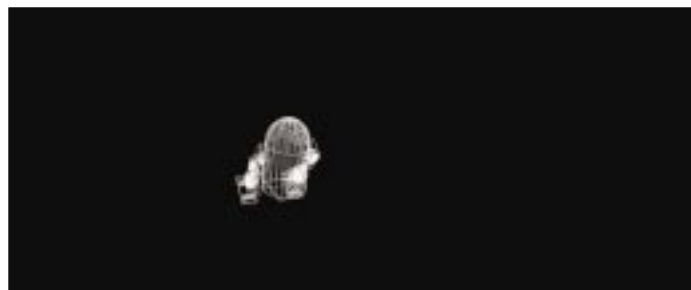
As with the all-new CG Yoda, the challenge was to adhere as closely to the original character as possible. For example, when walking upstairs, Brooks had the CG legs still rock back and forth in that renowned "Kenny Baker shuf-

fle" (supplied by the actor who fits inside the practical model).

Or when he swoops down to rescue Padme when she's trapped in a cauldron, Brooks introduced animated elements of the CG R2 correcting himself. "I would put in imperfections because I didn't want R2 to be too digital; I wanted him to be in character. I grew up with R2 and I didn't want to blow it. He's part of my childhood."

And why is the CG R2 Mac-based? Simple. Because the rebel unit is primarily Mac-based. And since Lightwave had some new tools, Brooks wanted to try it out for the first time in production instead of sticking with Maya or Softimage. Brooks says the results were very impressive.

"Lightwave offers a motion



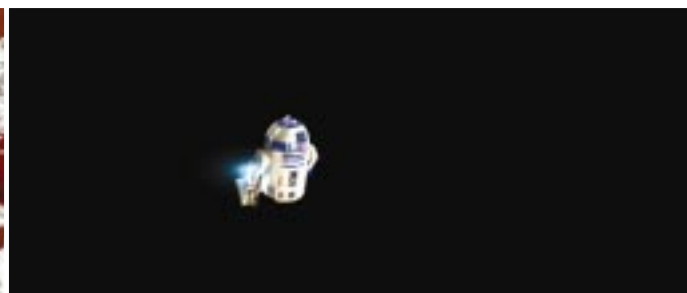
A step by step progression of how ILM made the CG R2-D2 fly
 — first they create the wireframe of the character.



Here the animators create the background element for the scene.



The wireframe is placed on the background element.



Then details of R2-D2 are filled in before the flying shot is completed.

mixer that allows you to pre-determine behaviors rather than tweaking animation curves," he explains. "Maybe you go from three legs to two legs in one shot, and maybe the rocket packs fold up in his arms. You put the chunks in a timeline. It's like non-linear editing, where you stretch and expand or overlap chunks of animation. In addition, Lightwave contains tools to *easily* randomize, such as when R2 wobbles over imperfect surfaces. And the animation curve editor is very fluid."

Getting It Just Right

As always, though, the most important cues came from Lucas. "I would go to a meeting and George would say that he wants R2 to walk upstairs. And then it would be up to us to figure out how. I would brainstorm with my little R2 toy on my desk and then get opinions from my office mates. I would present a concept to Rob Coleman, the animation supervisor, and he would say, 'What if he had more weight here?'"

Another physical challenge was having the rockets come out of R2's legs, an idea inspired several years ago by a Doug Chiang sketch. "What I did was redesign the mechanism so that it folded into the legs. George liked the test, but originally there was no close-up of the shot, so we made a new one that got into the movie."

Flying, of course, was an issue of believability, since it's a totally new concept for R2's character. Brooks says he sketched it, played with his toys and came up with the idea of the robot kicking his legs back for thrust, with the rockets remaining stationary. "Then I came up with the idea that he could spin with one leg back and one leg forward. I thought that would totally be in character for R2."

"I grew up with R2 and I didn't want to blow it. He's part of my childhood."

— Billy Brooks

Even grabbing a piece of bread proved troublesome during a scene on a freighter. Brooks had to get that clicking, jerking motion from the mechanical arms just right. "At first I thought the movement was too jerky, but then I remembered that's how he did [it] when extending his arms in the old films."

Also bothersome were the shots of the bread itself. "I modeled the CG bread and was scared of how it would meld into the shot of the real bread."

At one point Brooks got to do a complete CG replacement shot when it was discovered that a

foot was missing a piece on one of the practical models. "It was a quick and dirty 1:1 replacement during the Coliseum battle sequence," Brooks recalls. "It took two days and was hard to match. I wanted to see if I could do it purely as a challenge, having previously only appended different aspects of the practical R2 shots. It worked out fine."

Bill Desowitz is the former editor and managing editor of Animation Magazine, and writes about film regularly for the Los Angeles Times and the New York Times.

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Star Wars Episode II: ATTACK OF THE CLONES

Creating Clones Is Harder Than It Looks

by Bill Desowitz



Motion-capture supervisor Jeff Light directs the motion-capture action for the droids, with James Tooley in the motion-capture suit. Photo credit: David Owen.

Apparently there was a whole other behind-the-scenes battle going on between the clones and the droids in *Star Wars Episode II: Attack of the Clones* — the battle over motion-capture complexity. The clones won that one, too, given the extraordinary demands of these goose-stepping warriors that, unlike the droids, aren't supposed to look computer-generated.

The Problem With Clones...

"The battle droids involved pretty routine cycles, but we wanted a dead-on live-action, second unit style of shooting for the clones," explains Jeff Light, Industrial Light & Magic's motion-capture supervisor. The training sequence in which we are first

introduced to the clones in *Episode II* took seven weeks to animate. Here the clones put on their helmets, march in formation and snap to attention. It was actually more demanding than the thrilling arena battle sequence, according to Light. "There were different orderly groups interacting during the formation session. It was a real organizational challenge.

"For every take in motion-capture, Sylvia Wong [the animation lead] would find an extra human move or would hand adjust to animate on top of the performance. But we were careful not to change a performance with keyframe animation. If the performance had to be changed, we would do another session."

Working with Wong, Light would get the motion-capture

performance he needed in the studio and then deliver data as a moving cloud of points. "I had a team apply data to the characters," Light says. "After tweaking the performance, data was fit into a library and then the translation rotation was run through space, which Sylvia placed along a path."

Light would get the motion-capture performance he needed in the studio and then deliver data as a moving cloud of points.

The realistic look of the clones was achieved as a result of advances in the Vicon 8 optical motion-capture system (previously used in *Episode I*) and an improved pipeline for ILM. The 20-camera high-res set-up (as opposed to the earlier 7-camera low-res set-up) provided more bit depth, which allowed the animators to cover every angle in real-



Front to back: Jeff Light, James Tooley and Michael Sanders on the motion-capture stage. Photo credit: David Owen.



Taking an action stance! James Tooley strikes a pose. Photo credit: David Owen.



The realism of the clones was a result of Vicon's new mo-cap system and ILM's improved pipeline. Photo credit: David Owen.

time to see how a person relates to his environment.

"There have been a lot of advances in motion-capture," Light adds. "It's a lot faster and more sophisticated — you can visualize much better and dial a performance based on mood more exactly."

This occurred, for instance, when George Lucas instructed them to dial a much harder snap. Interestingly, James Tooley, the technical animation lead with a military background, suggested a stylized, Gestapo-like move that Lucas approved.

"I played a clone during

one of the motion-capture sessions, which was later replicated 100 times, so you could say that they cloned me," Tooley jokes. "The labeling and triangulating trajectories of motion-capture points were better in *Episode II*, which meant the volume of work was more efficient."

Light says they did between 100 and 150 takes a day since they didn't require real-time synchronization. That's because their motion-capture needs didn't revolve around one or two primary performances, as in the two *Mummy* movies they recently completed.

Tooley says one of the most challenging moments was when the clones pick up their helmets during the training session. This required a CG head to be modeled using a combination of Maya and Isculpt, with rendering done using Renderman and Mental Ray.

Light says they did between 100 and 150 takes a day since they didn't require real-time synchronization.

Droid Challenges

The droids had their challenges too. While they were required to fire in a straight line in *Episode I*, here they were asked to fire up more, since the clones were dropped into the arena. Meanwhile, rigid body dynamics was used to "slice" the droids during the battle.

Animatics, which were designed by Lucas and his team, were very specific, of course, about the placement and timing of moves...

Animatics, which were designed by Lucas and his team, were very specific, of course, about the placement and timing of moves during the battle sequence. Light says the battle just hummed along: "When the clones pile out and fire at the droids, I was directed in a suit that day," he admits. "There was lots of jumping on and off transports and

striking dramatic poses while firing at the droids. I came to a fast stop, landed and recoiled with my knees standing on a platform. You act like you're coming to a stop as if you're in an elevator. At first, I thought we'd have to build a rig — but no."

And there were retakes, such as when Padme and the clone trooper roll down a hill during the battle before interacting. "There were two separate shots after one long shot, and George didn't like the performance," Light recalls. "It was too tough for cleanup work, so we went back and moved into a new performance and blended the two performances. This time out we had higher quality data with less cleanup and a faster pipeline. It was a major improvement in cleanup data. We went from a crew of six in *Episode I* to just one



Droids always win on the surround. The motion-capture created army close in on the Jedi. © Lucasfilm Ltd. & TM. All rights reserved. Digital work by Industrial Light & Magic.

person, Alex Frazao, in *Episode II*."

Fortunately for Light, he had shot enough variations to mix and match throughout *Episode II*. "I've got a sixth sense about what George might want to do," Light adds. "You can't shoot every variation. Yet it's not enough to shoot only what you're assigned to do. With CG, every little move is scrutinized like in live-action."

Bill Desowitz is the former editor and managing editor of Animation Magazine, and writes about film regularly for the Los Angeles Times and the New York Times.

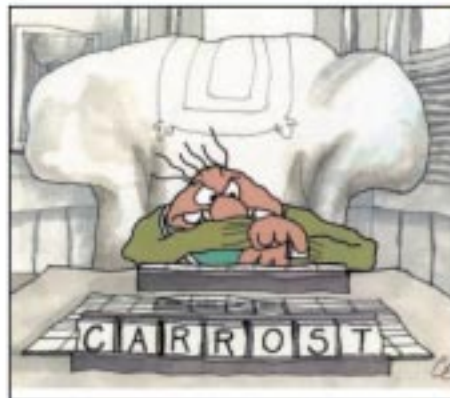
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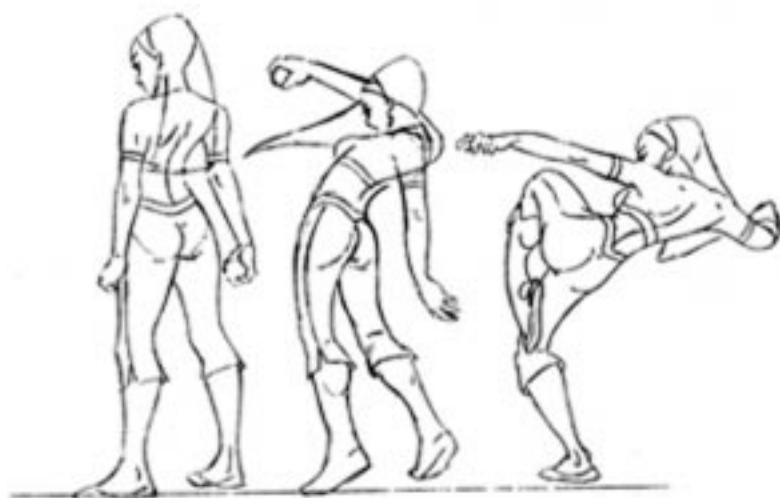


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You've Got Mail!

by Martin "Dr. Toon" Goodman



Our readers make their voices heard!

This column needs no introduction, since you, the fans, largely wrote it. What follows herein is a compendium of selected comments regarding my columns over the past year, with some replies of my own. Thanks for your opinions; I now turn it over to you.

Copy? Right! (4/15/02)

This examination of the Copyright Extension Act (aimed at keeping studio properties out of the public domain *ad infinitum*) drew a fifty-fifty mix of responses from the readership, with viable arguments on both sides of this admittedly heated issue.

Marcus la Grone: "...Imagine what it would be like if the Estate for the Brothers Grimm was still enforcing copyrights...Or maybe even the estate of Homer."

Mmmmmmmmm.....copyrights.....copyright extension acts.....D'oh!!! Huh? Ohhh...Thaaaat Homer! Yes, Marcus, you've certainly got a point.

Spec (New Hampshire): "This article is typical democratic ramblings. The "mean ol' corporations" out to get us innocent hard-working people..."

Guess the ex-employees of Enron wouldn't get much sympathy from you, eh, Spec? And sure, it is "democratic ramblings," since the public domain laws are clearly stated in the Constitution. You were expecting maybe Moosylvanian ramblings?



Readers wonder why Disney continues to release sub-par material, such as this DVD sequel of *The Lady and the Tramp*.
© Disney Enterprises, Inc.

Dalton Ames (citizen, Hollywood, California): [quoting the article]: "Those who retain their idealism hope for a victory on behalf of the people.' That's Communism."

Don't ever tell that to the Founding Fathers, Dalton. They are the authors of the Constitution (not Commie-tution), which contains the original copyright provisions. I don't believe they intended a Red nation, and besides, they predated Marx and Engels by a century. I know that history is sometimes played fast and loose in Hollywood, but that's going a wee bit too far.

I Am Scamp (8/17/01)

The response to this rant against Disney sequels was virtually unanimous. So how is it that these nefarious knockoffs continue to rake in so much cash?

Jen Finlayson: "If Disney really wanted to make oodles of cash, why don't they keep ALL their masterpieces in constant release for purchase?"

Say what, Jen? Give up all the coveted shelf space that could be reserved for *Cinderella II: Dreams Come True*? Somebody move those \$%#@*&! *Pinocchio* and *Dumbo* videos outta there!

Ed (Cleveland, Ohio): "If anyone would like to see the *BEAUTY AND THE BEAST: THE ENCHANTED CHRISTMAS* error list, please email me. I'm considering turning the entire thing into a presentation because I'm mad as hell and I'm not going to take it anymore."

So, Ed, aside from that, how did you like the video?

Daryl Holt (Tampa, Florida): "And to you animation fans who are parents that feel compelled to buy these lame sequels because you think your kids need the new stuff to watch — I say bull!"

And I say yea verily, Daryl! Parents, why don't you skip the Diz sequels and purchase your children *The Best of Zagreb Film: Laugh at Your Own Risk and For Children Only*. This exceptional compilation, available on video (and most recently DVD) is sure to entertain the little ones and serve as an introduction to nontraditional international animation. As long as we have the money and the choice, we have the power. Use it!

June Bugged: Cartoon Network's Controversy (7/11/01)

This controversial piece concerning the exclusion of twelve questionable cartoons from the annual "June Bugs" marathon drew comments from every angle of the controversy, including some from Thomas E. Reed and Amid Amidi, two of the heavy hitters in modern animation commentary. I enjoyed the hell out of writing this column.

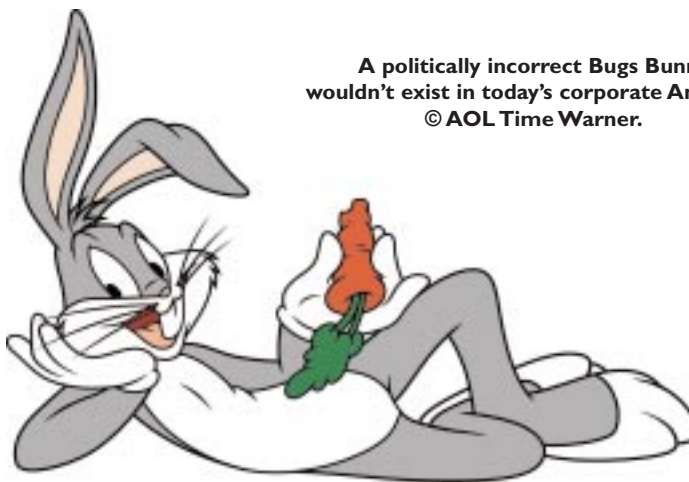
Peter MacWhirter (producer, Some Entermedia, Seoul, Korea): "...the argument that suggests we view these animated works now in the context of 'their times' could quite easily be used to endorse the continued use of the Confederate flag (an interesting design) or even multiple wives for men (a biologically driven behavior)."

Peter, I could not disagree more strongly. To begin with, these cartoons were never used to "endorse" or indoctrinate anything or anyone. They were made for the purpose of entertainment, tainted as that entertainment may have been. The reason that cartoons today are *not* used in the way your examples illustrate only proves my point; we have come a very long way. I continue to believe that we can handle some of the more objectionable material from our past in a mature manner. Those who forget the past may be doomed to repeat it, but those who learn from the past will not. Your view seems to suggest that we remain stuck in a paranoid, politically correct mindset lest we somehow endorse and disseminate the "wrong" viewpoint. Free your mind. Trust in our ability to learn and grow. Lighten up and give your sweetie a big hug...

Sam Tallman (Arizona): "You cannot erase discrimination and racism like they never existed, but you can help to prevent it in the future, through awareness and knowledge."

You got it, Sam! (I could mention at this point that Sam,

**A politically incorrect Bugs Bunny wouldn't exist in today's corporate America.
© AOL Time Warner.**



using twenty-four words, summed up what took me four pages to write. But since I don't want Heather and Dan to replace me, I won't.)

Thomas E. Reed (http://www.off-model.com, Orlando, Florida): "This kind of political correctness is bound to happen more often, as larger and larger conglomerates start producing our entertainment, news, and media. If Warner Brothers Animation were still a fairly small entity, a few people in charge could decide to take a chance with the Bugs cartoons running unedited. But this is...AOL Time Warner, who can't afford to upset anyone in even a slight manner."

Because of their high moral standards and sensitivity to issues of diversity, right, Tom? Eh? What's that you're saying between gasps of laughter? Boycotts? Yeah, sounds like "boycotts"....

Amid Amidi (http://www.animationblast.com): "It's the mentality of calling this humor regrettable [as quoted from the article] that further makes it impossible to see these shorts. Ethnic

humor is a staple of comedy, as time-honored as the pie-in-the-face...Some of the humor may be crass by our modern day standards, but is it any more crass than the caricatures of Indian people (from India) on *THE SIMPSONS*...it's hypocritical to criticize the past so vehemently when we create equally harsh ethnic humor in modern times."

Amid, with all due respect these cartoons filled with racist imagery are regrettable. They were made at a time when blacks had neither the voice nor the political power to protest their portrayals. Blacks were living in a country that was segregated *de facto*, Civil Rights laws were nonexistent and lynchings were still an option (so was reporting them). That is precisely the difference between then and now. Today, at least, people can question whether or not the depiction of Apu is racist. Let's also define your terms: The object of ethnic humor is to laugh at the foibles of one's own people, and to share a bit of the humor with those of another faith or culture. Racist humor, on the other hand, involves stereotyping, dehumanization and presumed supremacy over whomever is unfortunate enough to be the butt of the jokes. You cannot compare the writings of Shalom Aleichem, for example, with humor found in *The White Supremacist Weekly*. The cartoons referred to are much closer in spirit to the latter. Secondly, I never said that lampooning Apu was particularly acceptable either. Amid, I'm sure you know the powers-that-be at *The Simpsons*. If you detest the treatment of Apu, you know who to tell and how. You certainly have my blessings. My bet is that you'd



Readers killed Atomic Betty even before they saw the pilot! © Atomic Cartoons 2001.

be listened to more carefully than any black protester would have been had he or she taken issue with cartoons in 1945.

Atomic Betty (3/18/02)

So I try and write a piece about a show in production, and half the respondents blow it out of the water before it even has a pilot! It used to take studio executives to do that...

mcdiddy obrien (MID-NIGHT SPECIAL, t.o.): "This looks like a couple of chimps threw together the power puff girls and dexters lab and shat it back out."

dawk mc farlane (Stone Clonez Studios): "tisk, tisk, tisk...how SAD, to see this article...if those people only knew ...how bad a concept they have developed...i have developed over 200 characters-single-handedly, for my project and I can literally...KICK ASS on this...'crap' everyone calls the best concept."

Jimmy Meat Characters (Mangrove Anime, Sarasota, Florida): "Dawk is right...his skill at sculpting meat into characters is truly a unique gift...we have a

show called Meat Characters about a little meat boy named Maximum Meat Monroe...Dawk, if you're reading this...we'll sign you on ASAP, Baby!"

I find myself wondering, guys, if you have refrigerated sets and follow established USDA guidelines for the safe handling of meat. Germs are everywhere, y'know. Anyway, I have a proposition for you: Let's go into business together! After you finish filming, let's take your characters, grill 'em and sell 'em to the public with a choice of toppings. Our venture could be a cross between collecting original production art and scarfing down a good meal. Whaddya say, guys? While you decide, I'll take a Monroe, medium well, side of onions. All kidding aside, here's hoping you steak your claim in the animation business and meat with success.

Thomas Reed (TOON Magazine, Orlando, Florida): "As the entertainment business is now owned by about five megacorps, small animation companies are becoming desperate. People who might be comrades a few years ago are starting to backstab each

other...Slamming each other in the hope that you'll sell your project before the other guy is fatal to the creative spirit. It's also no good for your soul (or, if you'd like a less loaded word, your peace of mind)."

Blessed are the peacemakers, Thomas, and Amen to that (or, if you'd like a less loaded statement, You'll be a much happier human being if you grant any studio the right to freely create projects without taking nasty cracks at them, and that's a fact, Jack).



If Secret of NIMH is awarded the Oscar, does that mean Kirsten Dunst was never born? Photo credit: Zade Rosenthal. © 2002 Columbia Pictures. All rights reserved.

And The Winner Is... (9/21/01)

An imaginary history of the Academy Awards. At least I *think* it was...

Sandee Chamberlain (Pencil Milage Club, CSUF Chapter, Cal State University Fullerton): "Don Bluth's animated film Secret of NIMH — should have been awarded an Oscar."



Spirit is an example of seamless 2D/3D integration. This type of hybrid animation is becoming more and more common. TM & © 2002 DreamWorks LLC.

Jarle Bernsten (Freelance, Norway): "I think not mentioning the 1982 Don Bluth film The Secret of NIMH is quite outrageous..."

Thomas Reed (Tom Reed's Off-Model/TOON Magazine, Orlando, Florida): "Sadly, my friend, you missed a few points. There would be no rivalry between anime and American animation since in the Oscars all foreign films compete in the 'Foreign Film' categories."

People, people! This was an imaginary history! Akira never won an Oscar, and Robert Mitchum was never really kicked in the ass by an animated horse (All right, wink, wink!). Although in the past I have chided some of Bluth's films, this gentleman is a true artist and has given the utmost effort on every film he's ever done. Therefore, I am going to honor your requests and award the 1983 Academy Award for Best Animated Film to *The Secret of NIMH*. I am also revoking the awards of all anime winners I listed in the article. Now for the bad news. Changing history has set off a terrible chain of events attributable to the vagaries of chaos theory: Pat Buchanan is now

President, Communist Russia is firmly entrenched throughout Western Europe, Kirsten Dunst was never born, and the Cubs are World Series champs. See? See what you made me do?

Drawn To Conclusions (11/16/01)

Entertainment Weekly asked: "Will Shrek Kill Old-School Animation?" AWN readers had their doubts...

Rod Stafford: "Regardless of the tools and techniques used, the final output is ultimately an expression of the story in graphic form...recreating mental imagery in a physical medium."

Jared Caruso (Hypertoons Studio, Denver, Colorado): "When the camera was introduced, did we stop painting?...To say that CGI will ever replace "old school" animation is a short sighted statement."

Larry Lauria (SCAD, Savannah, Georgia): "Anyone with half a brain should realize there is no 2D versus 3D."

In the final analysis, I wrote that the authors seemed to be asking a rhetorical question. Your

responses turned out to be an excellent barometer of how you, the fans and artists, felt about animation in a changing technological context. Hey hey, my, my/ Painted cels will never die/ Side by side with CGI/ Hey hey, my, my...

And finally...

Speaking For Zimself (10/31/01)

This interview with Jhonen Vasquez, creator of the (recently cancelled) series *Invader Zim*, has drawn an astounding 48 replies at the time of this writing. Two of those replies actually mention the interview; the rest are largely fan letters to Mr. Vasquez. The level of pathology varies from none to psychotic, but I thought I would include an excerpt from my favorite...

Olivia (No company for me,



Fan hysteria reaches a new level for Jhonen Vasquez. Courtesy of Nickelodeon.

*A...O..PI, No such thin, The
Zombie Infested Island of Oahu):
"Man! I fricken love Zim!!!!
JKFaugh! Ahh!!!!...So, if you ever
see this Jhonen Vasquez! You
amazing crazy man ha ha. Then I
hope you know that I LOVE YOUR
SHOW!!!!!!!!!!!! I'll always love it and
remember it even when my brain*

*is decaying and i'm waiting in line
on my death bed of DOOM ^^
Byeeee!"*

Seems like a good place to stop. Byeee!

*Martin "Dr. Toon" Goodman is a
longtime student and fan of ani-
mation. He lives in Anderson,
Indiana.*

Note: Readers may contact any *Animation World Magazine* contributor by sending an e-mail to editor@awn.com.

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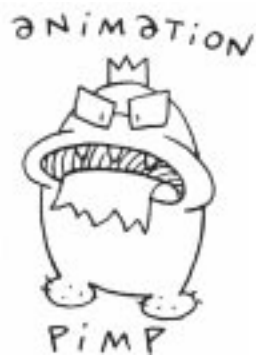


Illustration by Andreas Hykade.
Courtesy of Chris Robinson.

Just Like Us?

by Chris Robinson

In general, I don't like cops, army folk, bible swallows, or anyone whose primary function in life is to make, sleep, eat, dream, or shit, money. I don't like fools, even when I'm being foolish. I don't like elitist/preentious/holier than thou fugs especially when I'm being a self-righteous prick. I even lose it with those close to me. The dog, kid, wife, and EXSPECIALLY, the woman I emerged from. In general people who aren't doing something for me at the moment I want something done for me. In short, I can be a pretty self-centered intolerant jerk. And that's why I'm the ideal person to spot those same traits in others.

I dunno when it was, a few months ago maybe, but I noticed a lot of talk about Cartoon Network not showing some old 'racist' Warner cartoons. Frankly, I didn't see what all the fuss was about. Sure, the early cartoons are embarrassing in their reduction of blacks to the level of minstrel monkeys and Asians to slanting eyed rice eating kamikaze diving nips and coolies. And some have argued that the same can be said of Scots and Irish, etc...and sure, that's true, but how many Scots and Irish were killed because of

the colour of their skin? (Oh and just recently Porky Pig and Mr. Magoo were the target of the crusaders of tolerance.) Anyway... where was I? Oh...yeah...so...I thought...why all the fuss? There's just as much intolerance in films today. Yes, that's what I said. Sure you (not me) like to think we're the most tolerant people around. We've even got lots o' fancy words: African American, Native American, Mentally Challenged, Visually Challenged and Aurally Challenged. They all sound so...umm...harmless, charming even. But have things really changed? Does the fact that a man says a person is mentally challenged really change the fact that inside he stills sees a retard? These words, with admittedly good intentions, are often little more than another sheet cloaking deeply ingrained hatreds (which we've seen front and centre over the last 8-9 months). Like it or not, everything we experience/perceive is shaped by our culture, and at times it's so deep and so 'normal' or common, that we're hardly aware of it.

Let's take a few seemingly mundane examples. I was watching this piece of shit called *Trumpet of The Swan* about an

annoying family of white Swans who are supposedly "just like us." They have the same goals, fears and concerns as any 'normal' person (despite their beaks and feathers). Now...what's wrong with that, you ask? Well...the problem, friend, is that these apparent gestures of tolerance ("Sometimes being different helps you find your voice," is the film's catch phrase) are little more than superficial sheets of sameness that Hollywood, in particular, throws over almost every race and breed in film. And it's not just *Swan*, take a gander (heh...heh...) at *Shrek*, *Bug's Life*, *Antz*, *Ice Age*. "But, they're just animals?" you say. Sure, but whether they're ants, ogres or woolly mammoths, they are living beings; they have verbal and non-verbal languages, habits, perceptions of time/space that are unique to their ilk. They represent 'other' or 'difference' and yet outside of say, *Microcosmos*, animals are just mouthpieces for Americans. Take *Antz* and *A Bug's Life*, for example (which are little more than outdated anti-socialist films), all the characters are reduced to common 'human' types: the neurotic hero, the love interest and the PURE villain. Their social lives involve drinking,

dancing, loving and schooling, JUST LIKE US. The whole environment is really just a microcosm of someone's condensed idea of North American society. And sure...ok...this is nothing new... anthropomorphism has been rampant in animation since the beginning (to the point where *Starewich* was using live bugs to act out human trials). The USE of animals is not the issue here, but rather, HOW they're used.

"Yes, but they're just for children." Ok...well...all the more reason that these films should avoid these very false labels. Children, in many cases, are only aware that every bug, monster, toy, ant, dog, cat and duck, are really just like them. They're friendly, speak English and do everything we do. If that's the perspective of animals (fictional at that), can a similar view of humans (real) be far away? And of course...we (kids and adults) embrace sameness because it's recognizable and comforting; it makes us feel a part of the world. Now granted, my 4 year-old doesn't expect our dog or fish to speak, but I don't think he'd be surprised if Buster (the dog) got up on his hind feet (à la Tex Avery's *Crazy Mixed Up Pup*) and said, "How ya doin' kid?" But seriously, if one grows up surrounded by the same values and codes, thinking that everyone else shares their codes of perception, then they are very likely going to have difficulty understanding and accepting other ways of viewing and seeing the world.

Here's another subtle example of xenophobia: In Canada, on TV Ontario (Ontario is a province in Canada), we get *Bob The Builder* and *Teletubbies* in their original 'British' English, but I noticed that PBS re-dubs the voic-

es into 'American' English. I saw the same situation with a video (released by Disney) of Eric Carle's stories (*A Very Hungry Caterpillar*). What the hell is that all about? Are producers worried that kids won't understand 'British'? Are they worried that American children might develop a British accent? Do producers believe that there is a British plot underway to re-conquer North America? Is British too Pansy-ish? Oh, I'm sure some producer has a great explanation, but it's insane especially given that North Americans are already among the worst educated in terms of foreign history-geography-culture. It isn't much, but at least the British voices provide some infinitesimal dose of culture; "Yes, Timmy, there are people who speak differently."

Another example (which again I'm sure many American readers never even considered and why would you?) is the replacement of Canadian locales in American movies, most notably, *Wayne's World*. The film was based in part on Mike Myer's teenage experiences in Toronto (actually...a Toronto suburb, Scarborough), but the producers, perhaps fearing that American viewers wouldn't GET IT, switched every aspect of the film to Chicago. The Toronto Maple Leafs jerseys (Leafs! It should be LEAVES dammit!) become Chicago Black Hawks jerseys (hmm....jerseys with Injuns on 'em) and worst of all the very real Canadian 'icon,' *Tim Horton* Donuts (and also a fine defensive defenseman with Toronto and Buffalo who died driving drunk) becomes the fictitious *Stan Mikita* Donuts (a decent forward with a wild curve on his stick that he sometimes used for scoring goals). Why? Would

American kids not be able to relate to the life of a Canadian teen (ironic given that Canada has an enormous influence on all aspects of American pop culture)? Ok...fear of Russia, Iraq, China, Cuba and the Middle East is one thing (as stupid as that is) but fear of a people (Canadians and British) whose blood you likely share is just beyond comprehension. It suggests at once a paranoia, arrogance and ignorance that WE used to use to describe the evil Soviet commies.

And need I start breaking down *Mulan*, *Aladdin* and *Pocahontas*? Despite Disney's very loud proclamations that it supports difference in all its various facets (race, sex, gender), their films are nothing but hollow gestures of synthetic sameness. Having a woman in *Mulan* say, "Who spit in her bean curd soup?" is as tolerant as Disney gets. Sure you can argue that they at least disarm intolerance by showing American viewers that the Chinese are not THAT different, but it's still a very controlled and safe experience because these films are removing the foreigners from they're own culture. Gone are the languages, and the spoken and unspoken codes and gestures with their own intricate tone and tempo. It's like a filtering process, where everything that is unique about 'the other' is removed so that all we have left are these similarities and THAT has nothing to do with tolerance.

Now...the issue of mammals and gender is not my main concern here (although I'm sure I'll get around to it one day). The examples cited are being used to reflect what I think is a superficial tolerance in general in our society...that whether it's animals, fancy new words, overdubs or other

cultures...our representation of them is superficial because we apply our SUPPOSED standards and codes to them.

Ironically, even the representation/projection of 'us' is total nonsense and part of that problem rests with our definitions of good, heroism, celebrity and all them fancy words. Heroism filters out 'difference'...heroism is homogeneous...it paves over the rubble to make everything flat and smooth. Virtually all Hollywood tinged products reduce people of ALL cultures (including us wanky whiteys) to types, removing the complexities, contradictions; the "essence of their bodily fluids." We create false myths; elevate people to a status that filters out all those essences. We simple slugs often strive to live up to statures that are inherently false (not to mention the many 'heroes' who've had prob-

lems embracing their own fabled images). As such, mon chums, we continually chase something that isn't there and never was. That's where drinking, diet pills, television, botox and paxil come in. And yet, we're not fools. The dirt of the hero constantly fascinates us because we know it's there. We've been in the slime ourselves. Yet, when we seek it out in these 'heroes,' it's frowned upon (because it's reduced to gossip magazines); we're called vultures, gossip mongers. But it's wrong because we are just seeking a bit of ourselves in our 'heroes.' We don't want to know how perfect they are, we want to know how faulty, fucked up and human they are. We want to know, paradoxically, that they are just like us. But Hollywood and Heroism, in their current incarnations, really have little to do with them or us.

Squirrel Facts

Squirrels are horniest in the late winter. During their pursuit of the ladies, they perform breathtaking acrobatics.

An overdue thanks to D.E., K.N. and K.C. who've provided a lot of good (and some bad) feedback on both the "In Search of Stuff" trilogy and this here Pimp.

Chris Robinson is but a man. His hobbies include squirrel taunting, goat thumping, meat dancing and elderly peeping. You can find the results at <http://asifa.net/robinson>

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The Early Days at UPA

by Gene Deitch

Gene Deitch, who began his animation career at the UPA studio at its start in 1946, describes the UPA animators' enthusiasm for making "different" films from the established Hollywood cartoon formula. An excerpt from Gene Deitch's book, *How To Succeed In Animation* (Don't Let A Little Thing Like Failure Stop You!).

My Humble Start Amid Giants

All UPA could promise me was temporary work as an apprentice. That was all the Cartoonists Union of that time would allow. It was June, 1946, and those were the rules. I could only be a part-time apprentice. But Steve Bosustow, the great spell-weaver, put his hand on my 22-year-old shoulder, and said, "Gene, we are going to mold you into the first pure UPA director!" They had gotten it into their heads that anyone who'd worked for Disney, Warners, MGM, Columbia or the rest, were "spoiled." They wanted young raw meat, which they could cook to their own recipe. They liked my work, and they seemed to think I was "The One." I was enough enthralled to give up my good steady CBS Radio job for the less-than-certain chance to become the first "pure UPA" man.

UPA was born at a time before cynicism set in to our culture. We all really believed. Of course, as the first outsider brought into the hallowed circle, I believed most of all. I was in the



Gene's work for *The Record Changer* attracted the attention – and admiration – of the folks at UPA.

company of titans, and I knew it. Just 22 years old, and I was having my boyhood dream come true, to actually be working in a real movie cartoon studio — no — an animation film studio. UPA was not only creating a basically new approach to animation, but also upgrading the nomenclature. Bill Hurtz was not a mere "layout man," he was a production designer.

Here was a small group of men and women who were onto something brand new — working on the idea that any form of graphic art could be animated. Out with the "house styles" of Disney, Warners, MGM or Paramount! Every film was to be approached as an entirely new adventure, its graphic style, mode of animation, music — every element — growing out of the particular story. This seems obvi-

ous enough today, but in the early and mid-forties — in a commercial studio — it was a cosmic idea.

The most common misconception about the UPA people was that they favored "limited animation." What they actually endeavored was to get the most that really mattered onto the screen, in spite of miserly budgets. So the emphasis was on ideas — story — rich design, drawn from the greatest painters, designers and illustrators of the world, present and past — evocative music — and good animation. Some of the greatest animators alive worked on UPA films: Chuck Jones, Art Babbitt, Bill Littlejohn, Bobe Cannon. They had to use fewer drawings ("limited animation"), but superb timing and acting. That was unlimited.

The True Beginnings

It all gestated during WWII

where the U.S. Army Signal Corps had set up a unit to produce animated training films at the old Hal Roach Studios in Culver City, California. A phenomenally talented group of dedicated refugees from the 1941 Disney strike were holed up there, held together by Frank Capra, safe from combat duty, but doing greater good with their brilliant propaganda films, including the notorious *Private Snafu* cartoons. (Presumably, the brass either didn't know or chose to ignore that the character's name, SNAFU, was an acronym of the soldiers' lament, "Situation Normal, All Fucked Up.")

New ideas were born and toilet-trained in this no-holds-barred, non-commercial haven, and after the war they held together in a shoestring outfit burdened with the name, "Industrial Film & Poster Service," organized by Zack Schwartz and Dave Hilberman. The "films" at first were just filmstrips, successions of still frames. Being strong Unionists (some actually communists), their first real animated movie was a rousing vote-booster for Franklin Roosevelt, sponsored by the CIO union, and titled *Hell-Bent for Election*. They wanted to call themselves "United Films," but someone else already had that name. So almost as a gag, they built that name up to heroic proportions: "United Productions of America!" It was a weighty moniker for a tiny group of 12 guys and gals whose only weight was in their ideas.

By 1946 Zack and Dave had split. An obscure assistant animator from Disney, Steve Bosustow, managed to come up with some money, and he became president of UPA. It was a tight, hungry band.

Something About Suffering

We were installed in a tiny loft at the corner of Selma and Vine streets in Hollywood. It was the Otto K. Oleson building. Otto was the supplier of all those huge Klieg lights that sliced and waved through the sky during Hollywood movie premiers. The top floor was unusual in that the hallways between the rooms were roofless. Whenever it rained, we had to stuff wads of drawings under our shirts, and dash with them from room to room!

This humble workplace reinforced one of my favorite theories, developed over the years: "The worst working conditions often produce the best work." When UPA began to prosper, and a great architect was commissioned to design the new studio building in Burbank, things were never the same. The studio promptly began to lose its "brothers and sisters together" joy. Financial pressures, the need to place blame and huddled conspiracies, began to force splits.

I found this ironic situation repeated over and over during my career. Bad conditions tend to hold people together. Elegant surroundings, great offices and impressive furniture lead to pushing and shoving for prime locations and status. But the UPA of the Otto K. Oleson building had no such problems. It was Poverty Productions, and had a fantastic creative cohesion. The basic UPA conceptions bloomed within that building!

You can read more about Gene's career in the world of animation in *How To Succeed In Animation (Don't Let A Little Thing Like Failure Stop You!)*. An AWN exclusive.

Gene Deitch is one of the last surviving members of the original Hollywood UPA studio of 1946 and the instigator of the CBS-Terrytoon "renaissance" of 1956-1958. He was also: Animation Department Chief of the Detroit Jam Handy Organization, 1949-1951, Creative Chief of UPA-New York, 1951-1954, Director at John Hubley's Storyboard, Inc. New York, 1955, President of Gene Deitch Associates, Inc. New York, 1958-1960, Creative Director for Rembrandt Films, 1960-1968, and star director for Weston Woods Studios, Inc., Weston, Connecticut, 1968-1993. He has worked for over 40 years with the Prague animation studio, "Bratri v Triku."

Note: Readers may contact any *Animation World Magazine* contributor by sending an e-mail to editor@awn.com.

Writing The TV Animation Premise

by Jean Ann Wright

Getting Started

You want to be an animation writer and you have some really cool ideas for your favorite show. So? First you have to write a sample script to submit to the story editor of that show. Try surfing online to find an actual animation script that you can use as a template for format. Write your sample script for a show that's similar to the show you want to pitch. DO NOT write a sample for the same show you want to pitch, as the story editor will know that show too well and he'll see only the script's flaws. Try to meet professional animation writers and story editors. Learn who they are by looking at the credits of animated shows. Join animation organizations. Go to seminars and workshops and introduce yourself to the writers and story editors there. Network! But never be a pest! When your sample script is ready, contact the story editor you want to pitch, and ask if you can submit a sample of your writing. Be sure it's your very best! You can submit a copy of your sample script to an animation agent as well, but an agent is not a must to find work.

Preparation

Before you meet with a story editor, watch as many episodes as you can of that story editor's show. Watch it when it airs; watch old episodes that you've previously taped or rented. Analyze the episodes. How long is each? What makes this show popular? How is it different? What's the level of reality? What are the

rules of that cartoon universe? What makes it funny? Who are the main characters, and what makes them funny? Make notes about each. How many characters are in a typical episode? How many locations are used in each? Analyze the structure. Who wants what? Time exactly where each plot point comes in. What kind of humor is used? Is there a lesson, and how is it handled? Be sure you really know the main characters and their attitude! The more that you know about the show, the better chance you have of getting a shot at writing an episode. And usually you get that shot by submitting written premises or story ideas. Premises are short and written in narrative form. Unfortunately, there's no pay for writing them.

Come prepared with several imaginative, twenty-five-word-or-less ideas for episodes...

Meeting the Story Editor

OK! The story editor likes your script, and you've set up a meeting. Come prepared with several imaginative, twenty-five-word-or-less ideas for episodes, springboards that you can pitch verbally, if asked. Request a bible of the show, a script and a copy of several premises. The writer's bible contains information about the show and the show's characters. Listen carefully to everything the story editor tells you, and make notes. Ask questions. Does this show



Jean Ann Wright.

have an A plot and a B plot? Short cartoons do not, longer cartoons often do. Does the show have a joke ratio per page? What are the demographics or target age of this show? And is the target specific, or are the executives hoping for a wide range of viewers? What length does the story editor want your premises to be? Usual length is about one page, but each story editor has his own preference. How many premises does the editor want you to write before submitting the batch...three, four? When do you need to submit your first batch? Animation writing deadlines are usually very short, and you'll want to submit your ideas quickly. As a new writer, you'll probably be lucky to have one idea selected. And you may have to submit premises a number

of times before any are given the go-ahead.

Planning the Premise

Now you're home staring at a blank page. Find a different way of looking at things. Come up with something new or a different twist on an old idea. Don't limit your imagination. Think broader, wilder! For a comedy be sure that the main situation is funny. Go for the color...situations are a dime-a-dozen. The basic idea must be visual. Animators must have something to animate. You're writing for the story editor and any executives that have to approve your idea. Remember that broadcasters have censors. Can your audience identify with these characters in this story? In a kid's show, the writing should be "kid-relatable"...it should talk to and with the kids. The story should be so simple in concept that it can be told in a few sentences. Be sure you're telling only one complete story, one single, main incident going directly from A to B to C, nothing extraneous. One problem! One solution! Know the beginning, middle and end. Center the story on the star. Your story should grow out of the star's character. It's the star's weakness, his goal, his story. He should move the action ahead by what he says and does. He must solve the problem. He shouldn't be off stage for more than a couple of pages. Show him off. Normally, the villain in a cartoon is really bad! But pre-school shows may contain only funny villains. Remember that your hero is only as strong as your villain. It takes a super hero to vanquish a strong villain. Every character you include should be absolutely necessary. Be sure that you have enough props available in your setting for your gags.

Consider the budget...not too many characters, special effects, expensive action...unless you're writing for a big budget show. You may want to start your planning at the climax of your story and work backwards. If there's a twist at the end, you need to plant the seeds of it in the beginning without giving the twist away. As the story goes along, increase the jeopardy. Add a dire threat. For greater tension include a time factor. There should be no easy solutions to the problems. If the story isn't working, it's probably because there's not enough conflict. Solve one problem, and the solution leads to another. In comedy the harder the star struggles to get out of his predicament, the deeper he digs himself in. A six to twelve minute cartoon most likely has no real plot, only a situation; a longer cartoon will need more structure. And it's good to have a twist at the end.

***Be sure you're telling
only one complete story,
one single, main incident
going directly from A to B
to C, nothing extraneous.***

Writing the Premise

Make your title catchy. Hook the story editor with your first sentence. Joe Barbera used to say, "Get aboard a moving train!" Sparks should fly right away. Set up the star, villain, problem/conflict and where it takes place immediately in the first paragraph. What's the dreadful alternative if the problem isn't solved? Use common emotions. Why are your characters doing what they're doing? Include examples of char-

acters reacting in character. Introduce attitude. Put your own personality into the premise. Add a gag or two. No dialogue. Write in the present tense. Use strong verbs. Check spelling and grammar. Keep your premise as short as possible, and really sell the best parts...downplaying the rest. As a new writer, it's best to include a fairly complete structure, but if that structure doesn't help to sell the premise, keep it sparse. Make your premise fun to read. Scare, tease, tantalize! Write. Put each premise away for a day and rewrite. Be sure you're clear, specific and precise. Remember that the purpose of a premise is to sell your ideal. Good luck!

Jean Ann Wright has been teaching animation writing and development since 1996 and currently teaches for Women In Animation and The Animation Academy. Recently, she started her own consulting business. She's sold her writing to DIC, Filmation and Hanna-Barbera. She enjoys serving on the Los Angeles board of Women In Animation and judging for the Emmys and the Annies.

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Report Cards

Pamela Kleibrink Thompson

June traditionally is the time the school year ends and final report cards are issued. In elementary school, children are assessed on several factors including listening skills, cooperation and if they work well with others. If your employer and co-workers issued you a report card, how would it look? All of the following keys to career success are first learned and assessed in elementary school.

Works Well With Others

Nearly all projects require you to work as a member of a team. How you interact with others can have a significant and lasting impact on your career. Since most jobs are found through networking, make sure you are someone that people will want to work with again.

During life drawing sessions after work, one of the artists in my department appointed himself critic and dispensed unsolicited advice and critiques to the other artists in the room. The arrogance of the critical artist was not appreciated and the other artists did not want to work with him. Don't be a prima donna.

Don't expect to get special treatment and don't be someone who needs special treatment. If you become known as a person who is high maintenance, you will find it increasingly difficult to get hired. A person with a good



Pamela Kleibrink Thompson

reputation but little experience, talent or skills may be preferred over a person who is talented but difficult to deal with.

Listens Attentively

Be a good listener. Understand what is required and if you need clarification don't be afraid to ask questions. If you are unclear about your assignment, ask the person who assigned it to you.

It's important to follow directions and do the work that is required. If your job is to animate a model, do not redesign the model. Do not try to argue or belabor a point that has already been discussed and decided on.

Communicates Well

You must be able to express your ideas clearly and succinctly both to the artist at the desk next

to yours as well as to supervisors.

Works Cooperatively in Groups

At a video game company where I worked, the artists were expected to do all aspects of the animation process from designing characters through animating and rendering those characters. One artist was adamant that he should be exempt from designing characters, that it didn't fall into his job description as animator. He was used to a studio that segmented all the jobs into well-defined roles. He stubbornly refused to design characters and was soon ousted from his team. No other teams wanted to bring him on (remember how important it is to work well with others?) and he soon found himself out of a job.

Demonstrates Problem Solving Ability

What you demonstrate in your portfolio and demo reel is how you think. It illustrates not only your artistic ability but how you solve problems. Problem solving is a key skill that all employers want.

Completes Work in Reasonable Time

Completing your job on time is essential so the other members of your team can do their job. Respect deadlines.

Sustains Focus on Task

Stay focussed on the job at hand. If you have trouble with your scene, don't wander aimlessly in the halls and bother your co-workers. Seek advice from your supervisors if something is really stumping you.

Contributes to Group Discussion

When it's appropriate, such

as during brain storming sessions, voice your ideas and suggestions with a plan of action and possible solution. The more you know about the project, the more you'll be able to contribute.

Is Eager to Learn

To build a successful career in animation, you must be enthusiastic and ready to learn new skills. Techniques constantly evolve and you must be willing to try something new. Ink and paint artists who are working today had to learn how to use a mouse and ink and paint software programs instead of a brush and acrylic paint. That is the one constant in business — change! Be flexible and adaptable.

Shows Enthusiasm

Be passionate about what you do. Animation requires

patience both while at the drawing board or workstation and also often between jobs. Love what you do and learn all you can about the history of animation, techniques and trends. Use the time between jobs to expand your skill set and your network.

Goes Beyond What is Expected

A friend who is now a character and prop designer started as a production assistant on a television show. She got that first break by being persistent and keeping in touch with the production staff. Once she got that job she not only did an outstanding job in her position and never complained about the low pay, but also made herself available to others who might need extra help and put in extra hours to learn all facets of the production. When it was time to hire a new

person on the crew, everyone asked that the P.A. be hired. She has the same work ethic today, a decade later, as she showed on her first job.

If you pay attention to these elementary rules, you're sure to make the grade.

Pamela Kleibrink Thompson is uniquely qualified as a career coach, independent recruiter and management consultant. She frequently speaks about careers at colleges and universities.

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Never before available!!!

Glenn Vilppu's drawing techniques manual and video tapes, used worldwide as course material for animation students.



HOW TO DRAW ANIMATION: W r i n k l e s

by Christopher Hart

My book, *How to Draw Animation*, has found its way into many animation classrooms. So I was delighted when the people at Animation World, a Website I frequent, asked me if they could reproduce some of the art from the book. My aim in creating the book was to marry art instruction with appealing characters. Appealing characters lie at the heart of animation; and it always struck me that unless you create great characters, it's pointless to put so much energy into making them move. If you are interested in learning more about character design (both cartoony and semi-realistic types), as well as in creating fluid, convincing motion based on fundamentals and more advanced techniques, then give these pages a look. Although the examples given are of 2D animation, the same principles may carry over to 3D.

Last month we covered "Pushing an Expression," this month we continue with how to add the correct facial wrinkles to these exaggerated expressions.



Getting Facial Wrinkles Right

Wrinkles in the face are caused by the regular flexing of facial muscles. When people make expressions, they're flexing their facial muscles. Think of expressions as muscles thrusting in a direction, and think of the wrinkles as the reaction to those forces.



All drawings are © Christopher Hart;
drawn by Christopher Hart.

When the mouth widens into a smile, it pushes the crease lines around the cheeks out, the same way this finger stretches this line. The points where the force of the mouth meets the cheek will show the most reaction.

The face has many muscles. A down-turned mouth is caused by the muscles below the lower lip and in the chin.

Line Flow

Instead of accurately portraying the crease lines from the nose to the mouth, and then drawing a separate set of crease lines from the lips to the chin, it's more pleasing to simplify everything. Just join the creases to form one long line from the nose down to the chin.

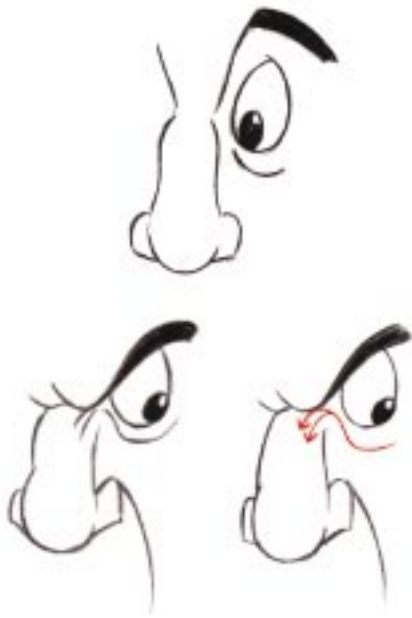


Accurate version.



Simplified version.





Snarl Wrinkles

The snarl wrinkle travels from under the eye to the bridge of the nose and is crushed by the eyebrow.

The Snarl

The snarl is a great facial expression. It's most typically thought of as representing anger or annoyance, but it's useful as an accent to other, more benign expressions, as well. Think of it as adding a bit of spice. The typical snarl illustrated here gives the smile its edge.

On humans, and especially on animals, snarl wrinkles start at the crease around the mouth and loop up around the bridge of the nose, where several forces converge into an expressive pattern of wrinkles.

Secondary Wrinkles

Some wrinkles are caused by other wrinkles; these are *secondary wrinkles*. Be careful not to overdo the wrinkles. This bear below has three secondary wrinkles: two over his mouth creases and one over his eyebrow. Any more than that would start to make this fellow ugly. If you need a lot of wrinkles to convey an expression, you should probably revise it



so that it's more effective with fewer lines.



Contraction

The face contracts or expands depending on its expression. This horse's grimace contracts the face – everything converges toward a single point.

How to Draw Animation by Christopher Hart. New York, New York: Watson-Guptill Publications, a division of VNU Business Media, Inc., 1997. 144 pages. ISBN: 0-8230-2365-6 (US\$19.95)

Christopher Hart has written and illustrated many successful "how to" cartoon and animation books for Watson-Guptill, in addition to writing for many studios and networks like NBC, Showtime, 20th Century Fox, MGM and others. He is also the author and on-screen host of a popular art instruction CD-ROM series. Hart has worked in animation, comic strips (Blondie), and magazines, including contributing regularly to Mad Magazine.

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Cosgrove Hall

— 25 Years On

by Andrew Osmond



25 Years of Cosgrove Hall: All the characters that have ever been broadcast by the studio. © Cosgrove Hall.

There's an episode of Cosgrove Hall's new series *Albie*, about the fantasy world of a little boy, that encapsulates what fans love about the studio. Albie has been sketching animals ('impressionist moose') before going to bed. His mean sister warns him of nightmares. Sure enough, Albie is woken by his drawings, that complain about their lack of realism. 'These legs would look daft even on an elk!' one moose whinges in a Manchester accent. 'It's artistic

license!' Albie protests. 'It's indecent assault!' the moose retorts.

After that, things get seriously strange. There's head-swapping. There are harmony-singing Welsh buffalo ("We are Welsh and we come from Wales," sung to "Men of Harlech"). There are two hippos that blow up Albie's garden. One hippo looks at his partner and exclaims, 'You were only supposed to blow the ruddy doors off!' in a Michael Caine accent. After that, Terry Gilliam might lie down.

All in a ten-minute segment supposedly aimed at young children. And that's not mentioning the technical innovations. Albie and his environment are traditionally drawn, but the animals (at least in their daylight appearances) have CG textures, creating a reality-fantasy contrast that works extremely well. Small wonder *Albie* is picking up prizes. So far it's snagged the British Animation Award for Best Children's Series, the Best European Programme at

Cartoons on the Bay and the Best Young Writer award in the U.K. trade *Broadcast*.

A Successful History

Albie represents a new generation of programmes from a 25-year institution, now Europe's biggest toon studio. Founded in 1976 by college friends Brian Cosgrove and Mark Hall, Cosgrove Hall started life in a disused warehouse near Manchester, north England. For American readers, its three most familiar creations are *Dangermouse*, about a hero rodent agent, *Wind in the Willows*, a puppet version of Kenneth Grahame's classic, and *Duckula*, about a neurotic vampire duck.



Albie creates a world Terry Gilliam would love. © Cosgrove Hall Films.

Head of public relations AJ Read knows the trio's enduring popularity: "If you do a search on the Internet, you get 180,000 returns on *Dangermouse*. It's still on in the States and I get American emails every week, chasing information and merchandise... It's huge." In its heyday, *Dangermouse* pulled in vast audiences and was among Britain's most-watched programmes. "I think that for a children's cartoon, it would be very difficult to get those figures now, mainly because of the spread of channels," says Read. "A lot of children just put on Cartoon Network. It would have to be a stunning piece of

well-marketed animation to get near *Dangermouse*."

Other keynote Cosgrove Hall titles include the 1990 feature *The BFG*, based on the book by Roald Dahl; the same year's *Truckers*, a beautiful model version of Terry Pratchett's novel (with animation by the late Paul Berry); and the Emmy-winning *Peter and the Wolf* (1996), co-produced with Chuck Jones. There have also been *Foxbusters*, *Fantomcat* and *Rocky and the Dodos*, while the model *Animal Shelf* airs in America. An exhibition of the studio's history is running at the Lowry Centre in England.

Beyond Stop-Motion

Today Cosgrove Hall remains near Manchester, but is now housed in custom built studios, covering 25,000 square feet. The site includes Avid and post-production facilities. Beside the traditional twin-tracks of model animation and 2D, the studio has embraced the CG age, establishing its own subsidiary Cosgrove Hall Digital. *Albie* combines CG textures with 2D animation, while the preschool *Andy Pandy*, *Engie Benjy* and *Bill and Ben* mix CG with stop-frame. Several other CG



The early days of Cosgrove Hall Films were spent in a refurbished tobacco warehouse. © Cosgrove Hall.



Today, Cosgrove Hall Films is housed in a state-of-the-art complex. © Cosgrove Hall.

titles are in development, including the children's sci-fi shows *Thunderpilots* and *Code Warriors* (the latter combining CG with live-action). There is not, however, a CG *Dangermouse* as rumoured in some quarters.

Most of the current titles are aimed at very young children. *Andy Pandy* and *Bill and Ben* revamp classic 'Watch With Mother' BBC shows. The characters first entertained Britain's tots in the '50s, when no-one worried about visible strings. As the *Albie*



The founders Brian Cosgrove (left) and Mark Hall with some early signs of success.

summary shows, though, Cosgrove Hall retains its *Monty Python* spirit. "There's a little bit of mystery, of anarchism, involved in *Albie's* storytelling," says creative director Ben Turner. "The audience always ends up somewhere they didn't expect to be."



Andy Pandy appeals to the preschool set with its mixture of CG and stop-frame animation. © BBC Worldwide Ltd./Ben Productions.



Wind in the Willows is one of CHF's best known shows. © FreMantle Media.

"These days, a lot of TV animation is very child-focused and child-centered, because of the wants of commissioning editors," Turner continues. "It's all about the environment of the child, what a child will understand at a particular age. But with *Dangermouse* and *Albie*, there are unexpected surprises, a surrealism mixed into the humour. I like stories like that, and I think many kids do."

A New Age

How is the cartoon environment different now from



Brian Cosgrove (left) and Mark Hall stand outside the Lowry Centre in England where CHF's historical retrospective *From Dangermouse to Bill and Ben* showed. Between them is *Weed* from *Bill and Ben*. © Cosgrove Hall.

1976? "There are two ways," says managing director Iain Pelling. "One is the way in which we can make our shows, the technology, which is better. The second is the issue of financing shows, which is worse! It's a harder environment; there's far more competition. The amount licensees pay has fallen, because of the increased supply in the market and the principles of co-production. It's the way the market works. But the opportunities offered by technology are much greater, with new ways to get our shows out there."

In order to succeed in today's media landscape, Pelling believes Cosgrove Hall must cultivate partners and think globally. Early on, the studio could make its shows primarily for a British audience. "Our programmes have to be more international now," says Pelling. "It's not that we're tailoring them for France or Germany or America, but they have to work in those places."

Co-production is fairly new territory for Cosgrove Hall, though the studio has worked for hire. Both *Andy Pandy* and *Bill and Ben* were made with the BBC and the

U.S. company Ben Productions, but Cosgrove Hall had a fairly free hand. "As a creating studio, we haven't done many co-productions," says Pelling. He acknowledges form and content can work against collaboration. "It's especially difficult with stop-motion, because of how the animation is made. And we didn't want to go the co-production route with *Albie*, because of the nature of the humour."



Duckula, a co-production with Nickelodeon, has been seen on American television. Like many, Cosgrove Hall is looking to sell more of its shows to the States. © FreMantle Media.

Nonetheless, Pelling sees the studio doing many co-productions in the future. "It's a way to share the risk, given how expensive cartoon series are today," he says. "Many of the CG titles we're developing will not be possible



Brian Cosgrove (left) and Mark Hall hold specially made sculptures presented to them at CHF's 25th Anniversary Ball, which was held May 14, 2002. The statues are of the founding partners' heads with Dangermouse and Penfold alongside. © Cosgrove Hall.



CHF animator Pete Dodd works on the preschool show *Fetch the Vet*. © Cosgrove Hall.

without partners." He sees co-production as a trade-off. "On one side, it's working out how to keep the partners' sympathy. On the other, it's a matter of our animators deciding what they *really* want to do. They make a distinction between the bits of the programme they're determined to keep and do themselves, and the bits where they can work with a partner. It makes you think more about the production process, how it's structured."

Duckula was co-produced with Nickelodeon, but many later Cosgrove Hall series have not

been seen in America, despite selling in over 150 countries. "We don't have a great track-record of selling shows to America," admits Pelling. "That's why we're looking for companies with access to the U.S. market. We want to play to the partners' strengths." Pelling hopes new trends will make sales over the pond easier. In recent years, *Teletubbies* and *Bob the Builder* sharpened U.S. interest in Brit preschool programming. This may help nursery shows like *Bill and Ben* and *Andy Pandy*, though whether the eccentric *Albie* finds a place remains to be seen.

Just the Beginning?

Viewing an episode of one of Cosgrove Hall's new shows — *Albie* with its singing buffalo, or *Engie Benjy* with its seamless model backgrounds and wider CG landscapes — is slightly poignant. It's a reminder of how a single TV cartoon can look both crafted and individual, without a trace of the production line. At a time when TV airwaves seem infested by *Pokémon*-alikes, can this continue? How does Cosgrove Hall do it?

"We make a distinction between quality and cost," says Pelling simply. "At the moment, we're looking at a nursery CGI show that would be very cost-effective, but we'd still put in the quality elements that Cosgrove Hall has. We've never believed in, 'Pile it high, sell it cheap.' If we tried to be more cynical, we'd just get it wrong anyway! We always ask what's the best we can do in each bit of animation.

"We never exceed a budget, but there's always an inclination to exceed quality," Pelling concludes. "I'm not saying other studios don't try, but Cosgrove Hall seems able to match intention with delivery. Maybe it's because we've been going so long." Twenty-five years on, Cosgrove Hall doesn't look like it is slowing anytime soon.

Andrew Osmond is a freelance writer specializing in fantasy media and animation.

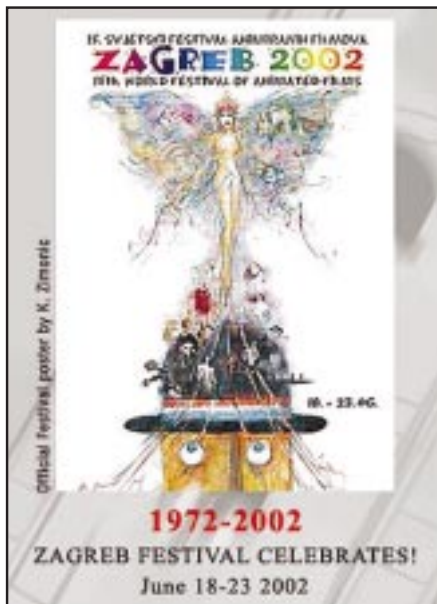
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Zagreb at a Glance

by Heather Kenyon

"Come, let's watch the films together, and we'll drink a toast in honor of our festival's 30th anniversary analogously and not digitally!"

Josko Marusic
President of the Festival Council



This year's festival poster was designed by Croatia's Kresimir Zimonic.

From June 18 – 23, 2002 Zagreb will hold its 15th World Festival of Animated Films and is expecting a grand turn out for its 30 year anniversary. The festival is going to begin with a celebration in Zagreb's "Flowers

Square," which will serve as a reunion for the people that have attended and supported the festival throughout the past thirty years. While the last few years have been difficult for Zagreb due to the war and Annecy's decision to go annual, this year it appears that Zagreb is back in full force and offering a number of exciting opportunities for festival attendees. "The festival is hot this year," says leading U.S. independent Bill Plympton, "It has a great buzz around it."

"The festival is hot this year."
— Bill Plympton

Jury member and first time Zagreb participant, Linda Simensky, Cartoon Network's vice president of original animation, agrees, "A surprise has been the number of Americans attending. With Zagreb happening so close to Annecy, most people had to make a decision about which festival to attend."

In addition to a rich, varied competitive program of films,

Zagreb has a number of rare retrospectives and special screenings, new awards, a Flash animation workshop and even a chance for everyone to contribute a birthday card to the festival.

The Films

978 submitted entries were weeded through by Rada Sestic, a Croatian filmmaker and film critic, Witold Nowak, director of Sweden's Eksjo's Animation School and David Ehrlich, an American independent filmmaker and educator. (David Ehrlich has written



Greeting card by Georges Sifianos.

an essay on selection, which is currently posted on <http://asifa.net>. There you can also read interviews with the festival's program and managing directors.) Due to the large number of entries – over five thousand and three hundred minutes of programming – the screening time for the official competition grew from 480 minutes to 540, out of the goodness of beloved festival director's Margit Antauer's heart.

“Everyone
always expects
me (as an
American) to
have typical
American taste...”
– Linda Simensky,
Jury Member

As a result, the jury will have their hands full deciding the winners. The official competition jury is: Oksana Cherkasova (Russia), Joanna Quinn (Great Britain), Linda Simensky (USA), Georges Lacroix (France) and Edo Lukman (Croatia). Simensky says, “It seems that the festival has pulled together a selection that truly represents international animation. Plus, the jury looks to be as diverse as the film selection, and that will make the discussions challenging. Everyone always expects me (as an American) to have typical American taste, which I guess in this case, would be defined as liking funny films. Perhaps they'll be surprised. I am also curious to see if there are many political films in this festival.

Over the last few years, I have noticed fewer political films out there, but the ones that were political often came from Croatia.”

Of the films selected the largest number come from the United States with fourteen films in official competition; however Russia with six films, Canada with eight entries and the U.K with nine are other strong nations. Of the 85 films in competition, though, a wide range of countries are represented including Iran, Mexico, Slovenia and — with three films in competition — home town favorite, Croatia. Fifty-three films are in the student competition and here France is clearly the leader with an amazing 12 entries. Great Britain is next with eight. Now the numbers get more engaging with four student entries each for Bulgaria, India and Korea. The selection committee awarded the Marble Z Trophy for the best selection of student films submitted to the festival to the Seoul Animation Center in South Korea. The diversity of the student screenings should make for some unusual viewing. The jury for the student competition is: Gyorgy Elekes (Hungary), Nevenka Fiser (Croatia), Barbel Neubauer (Germany) and Monique Renault (Netherlands).

Beyond the Competitions

However, the screenings are only the beginning of the events that are going to be held at Zagreb. Giannalberto Bendazzi, the renowned animation historian, writer and teacher is being awarded the newly created Zagreb Festival Award for outstanding achievement in the field of animation studies. Giannalberto travels extensively promoting the art of animation and interviewing

animation legends, preserving our history. His book, *Cartoons: One Hundred Years of Animation Cinema*, is a keystone of animation literature. “While I am very, very flattered, I want to emphasize that I did not get this award, we got this award. This is the first time that documenting animation and its history is being recognized and that's what is most important,” explains Mr. Bendazzi humbly. Over the coming years more historians like John Canemaker, Pierre Lambert, Bruno Edera, William Moritz, Michael Barrier and others might be in the running. “This will encourage a new generation, which is very important to me,” continues Bendazzi.



Another card. This one from Marija Milećić Dail.

Screenings of Japanese animation throughout its history, Norwegian animation, and animation from Bosnia and Herzegovina will all be featured. Chris Robinson will be taking a new twist on Canadian animation and screen, “Canadian Films Beyond the Board.” As Robinson explains,

"'Beyond The Board' turns the spotlight on the many talented independent animators (Stephen Woloshen, Rick Raxlen, Gail Noonan) and commercial studios (Spumco, Nelvana, Cuppa Coffee) in Canada that are producing a variety of innovative and provocative work that shows that Canadian animation is much more than the NFB." Piotr Dumala and Victor Bergdahl will be treated to retrospectives as will Paul Driessen.

"This is the first time that documenting animation and its history is being recognized and that's what is most important."
— Giannalberto Bendazzi

In fact, Paul Driessen will be awarded the Lifetime Achievement Award for Zagreb 2002. Following a premiere of a new documentary *Paul Driessen Inside Out* and a new book entitled, *Paul Driessen: Images and Reflections*, at Annecy, the prolific and renowned director is certainly getting his long due recognition. *Paul Driessen: Images and Reflections* was published by the International Animated Film Centre and the Holland Animation Film Festival. With more awareness sure to be garnered at Zagreb, it is nice to see a number of animation festivals working together to promote an animation master and his work. With so

many festivals these days, such cross-over promotions not only ensure that more people are exposed to an artist and his/her work, but also affords multiple-festival goers the chance to gain a greater depth of awareness.



A frame from the Flash animation *How Quest Sought the Truth* by Nathan Jurevicius, which will premiere at the Zagreb Festival, as part of an international Internet project.

Zagreb is also hosting a workshop on Flash animation as the culmination of a much larger Flash project. Grouping together an international team from Canada, Scotland, Germany, France, the U.S., Russia, Australia and Denmark, the group met over the Internet to create animated interactive stories, games and cartoons inspired by Croatian fairy tales drawn from a book by Ivana Brlic Mazuranic. In Zagreb the eight artists will meet for the first time to present their work and host the workshop.

Celebrating its 30th anniversary the festival is also inviting artists to send in "birthday cards." The illustrated cartoons will be published in the daily festival news. "Cards" can be mailed or emailed (animafest@kdz.hr). We have included here three of the cards already received.

While we will all wait to see which films are selected as tops, the week's true winner may be the festival and its atmosphere. Promising an intimate atmosphere where filmmakers and guests are

treated with great hospitality, Zagreb offers a place where people can mingle, relax, watch films and discuss. "I have found that I seem to enjoy the smaller European festivals, such as Holland or Fantoche, so I am eager to find out where Zagreb falls in the festival continuum. Some people have told me that Zagreb is fairly representative of what the European animation festivals were like back in the '60s and '70s," Linda Simensky says. While bridging the gap over tumultuous times, Zagreb has moved forward but also managed to keep its unique spirit. "The audiences are great and the festival has a definite Eastern European flavor about it," Bill Plympton recalls. Like everyone heading for Zagreb, I too am looking forward to experiencing the festival, especially on such a special year.

Heather Kenyon is editor in chief of Animation World Network.

Note: Readers may contact any *Animation World Magazine* contributor by sending an e-mail to editor@awn.com.

Fresh from the Festivals:

June 2002's Film Reviews

by Jon Hoffermand

Within the world of animation, most experimentation occurs within short format productions, whether they be high budgeted commercials, low budgeted independent shorts, or something in between. The growing number of short film festivals around the world attest to the vitality of these works, but there are few other venues for exhibition of them or even written reviews. As a result, distribution tends to be difficult and irregular. On a regular basis, *Animation World Magazine* will highlight some of the most interesting with short descriptive overviews.

This Month:

Carmelo (2000), 8.5 min., directed by Jorge R. Gutierrez, Mexico. Info: Jorge R. Gutierrez. Email: mexopolis@yahoo.com.

Hara Mamburu (1994), 4 min., directed by Slava Ushakov, Russia. Info: Slava Ushakov, 10980 Ohio Ave., #202, Los Angeles, CA 90024. Tel: 310-444-9367. Email: slavaushy@cs.com.

Kitchen Katastrophe (2001), 9 min., directed by Derrick Auyoung, Andrew Huang, China/USA. Info: Ted Vegvari, Palos Verdes on the Net, 30940 Hawthorne Blvd., Suite 101,

Rancho Palos Verdes, CA 90275. Tel: 310-541-7992. Email: tedv@palosverdes.com.

Red Vines (2001), 4 min., directed by Evan Mather, USA. Info: Evan Mather. Tel: 626-395-9461. Email: evan@evanmather.com.

A Szentjánosbogarok Nemi Élete/The Sexual Life of Fireflies (2000), 7.75 min., directed by Pál Tóth, Hungary. Info: Pál Tóth, Paja Film Bt., 6724

Szeged, Vág u. 3/b, Hungary. Tel/Fax: 366-249-3658. Email: tothpal@elender.hu.

Carmelo

Director Jorge R. Gutierrez brings a striking primitivist style and fine eye for detail to this fable about a young boy who dreams of becoming a famous bullfighter like his father, whose career was brought to an untimely end when he was gored by a bull. Based on a traditional tale associated with Mexico's Dia de los Muertos (Day of the Dead), *Carmelo* is extremely atmospheric and Gutierrez's rendering of his characters as rough-hewn puppets is imaginative, if perhaps also somewhat off-putting. The narrative, while clear in a broad way, tends to get murky when it comes to specific actions and motivations, and



Carmelo. © 2000 SUPER-MACHO.COM.



Hara Mamburu. © 1994 EGI Corporation.

it's possible that, without some prior knowledge of Mexican customs and history, a lot of the nuance, and some references, could be lost. Still, there's a lot of beauty in Gutierrez's dark, folk-art-inspired visuals, and the sense of place and purpose resonates, even if one might wish for a more lucid narrative structure.

Born in Mexico City and raised in Tijuana, Jorge Gutierrez attended Cal Arts as both an undergraduate and a graduate student. *Carmelo*, which was created using SoftImage, is his MFA thesis film. The film was funded by grants from numerous sources, including Intel, SoftImage, Fox Feature Animation and the National Arts Council of Mexico. It won first prize in the Computer Animation category of the ATAS College Awards and has screened at many festivals around the world, including Cannes. Since 2001, Gutierrez has been producing

El Macho, a Web series for Sony Digital Entertainment on screenblast.com.

Hara Mamburu

In terms of sheer visual exuberance, this music video for the Russian indie band, Nogu Svelo, is hard to beat. In another context, director Slava Ushakov's collection of eccentric, highly stylized characters and the film's breathless series of more or less inexplicable events could easily have turned out to be an un-pleasant exercise in overkill. As it is, however, his free-wheeling style and anarchic sensibility are the perfect match for Nogu Svelo's very funny — if entirely incomprehensible (to me at least) — song. Using old-fashioned cel animation, Ushakov plays with a number of wacky motifs that gradually take on obscure iconic significance, and he incorporates just the right balance of repetition and variation to both high-

light the humor and keep things moving along.

Slava Ushakov began his professional career at the age of 17 as a cartoonist for the Moscow weekly, *Soviet Circus*. From 1987-1996, he worked in various capacities for the Pilot studio in Moscow and in 1996 established his own Nils studio. Since 1998, Ushakov has been based in Los Angeles, where he works as a director and storyboard artist for Kinofilm. *Hara Mamburu* was funded by the Metropolitan Bank in Moscow and received an MTV Award at the 1994 International Video Festival in that city; more recently it won an award at the 2001 DIRECTV – LEVEL13.NET ANIMATED FILM FESTIVAL last December. Ushakov's other works include *Earlier I Used to Live by the Seashore* (1997), *Aeroflot* and *Short Legs* (1998), and *Orange* (2002). On Cartoon Network's *Mike, Lu and Og*, he served as storyboard director as well as in other capacities.

Kitchen Katastrophe

Continuing the ongoing love affair between animators and kitchen implements, this amusing and well-executed 3D entry chronicles the valiant but ultimately unsuccessful efforts of an assortment of pots, pans, cutlery and, yes, one brave little toaster to rescue an unfortunate fork who's been unwittingly imprisoned in the microwave. Though created with the usual assortment of high-tech digital tools, including Maya, Sound Forge & Vegas Pro, and several Adobe programs, the film has a nice retro look and feel that enhances its appeal. Narratively and visually, it's nothing we haven't seen before, but the well-shaped story, good comic timing, and clever use of camera angles (not to mention funny voices) contribute to its successful exploitation of a familiar genre.

A collaborative effort co-directed by Andrew Huang and



Kitchen Katastrophe filmmakers Derrick Auyoung (foreground) and Andrew Huang (at computer).

Derrick Auyoung, *Kitchen Katastrophe* was made under the auspices of Palos Verdes on the Net, a nonprofit community technology center. Huang is a self-taught animator who has been experimenting with CGI technology since he was eleven. Currently a junior at Palos Verdes Peninsula High School, he's looking forward to a career in the visual arts. Auyoung is in his third year as a computer science student at UCLA, where, among other extracurricular activities, he teach-

es computer workshops. Both Huang and Auyoung also work as interns at PV on the Net.

Kitchen Katastrophe has screened at several festivals, including the Hawaiian International Film Festival and the Visual Communications Los Angeles Asian American Pacific Film and Video Festival, where it was nominated for the Golden Reel Award.

Red Vines

With source material like this, it's hard to go too wrong, but Evan Mather's music video for Aimee Mann's "Red Vines" (from the album, *Bachelor #2*) is a worthy complement to this typically bittersweet song by the acclaimed singer-songwriter. Using a combination of hand-drawn and computer-generated animation, Mather transports Mann's story to a gas station/convenience store, putting Mann



Kitchen Katastrophe. © 2002 Palos Verdes on the Net.



Red Vines.
© 2001 Evan Mather.

behind the cash register. While the particular interpretation is arbitrary to a large degree, Mather displays both ingenuity and discretion in his manipulation of the specific elements of this created world, so that the visuals neither overwhelm the music nor function as redundant illustration. The director's flat graphics and purposefully awkward movement may not be to everyone's taste, but his distinctive style and empathic sensibility jell extremely well here with Mann's story of unfulfilled love.

Evan Mather grew up in southern Louisiana, where, among other notable accomplishments, he was the first person in his high school to produce parodies of trendy European art films. Perhaps best known for his popular *Star Wars* take-offs, including *Quentin Tarantino's Star Wars* (1998), *Godzilla vs. Disco Lando* (1998), and *Kung Fu Kenobi's Big Adventure* (1999), Mather is a self-taught filmmaker who frequently combines traditional animation techniques with computer-generated effects. His other works include *Buena Vista Fight Club* (2000), *Fansom the Lizard* (2000) and *Airplane Glue* (2001). *Red Vines* has been shown at the Rotterdam, SXSW, and Fifi festivals, among others.



The Sexual Life of Fireflies.
© 2000 Paja Film.

The Sexual Life of Fireflies

Without a doubt the most sparkling presentation ever of mating rituals, this 3D computer animation is most successful as a pleasing demonstration of a range of light effects, realized through Imagine and Adobe Premiere (run on a single 166 Mhz PCI). Using both anthropomorphized bugs and haloes of light as characters, director Pál Tóth sets up a number of small subplots with a few identifiable individuals, but for the most part the film is a largely undifferentiated and impressionistic sequence of (often lovely) luminous configurations, climaxing in a dazzling fireworks finale. This is enjoyable enough as far as it goes, but the funny/cute characters and the more poetic abstraction don't mix very well and, given the narrative limitations, the film feels overlong and rather shapeless.

Pál Tóth began his animation work in 1971 at Pannónia Filmstudio in Kecskemét, Hungary. After a period working in Belgium at the Graphoui Studio and as a freelance animator, he returned to Hungary in 1995 and founded Paja Film to produce 3D computer-animated films. In 1999, he received the Béla Balázs Prize,

Hungary's most prestigious film award.

The Sexual Life of Fireflies has screened at Annecy, I Castelli Animati, Fifi and numerous other festivals. It received a Special Jury Prize and Audience Award at Cinanima in 2000, as well as prizes at Anima Mundi, Filmvideo, Matita, and Retina.

Note: QuickTime clips of the films may be viewed online at http://mag.awn.com/index.php3?type=pageone&article_no=1407

Jon Hofferma is an independent filmmaker, writer and graphic designer, as well as the creator of the Classical Composers Poster (www.carissimi.com). He has a B.A. in Philosophy & Religion and an M.F.A. from UCLA's School of Film & Television. Appropriately enough, he is currently working on a documentary about the nature of religious experience.

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