



STOP MOTION: CELEBRATING HANDMADE ANIMATION ON THE BIG SCREEN

Frankenweenie

Frankenweenie

Directed by: Tim Burton
©/Production Company: Walt Disney Productions
Produced by: Julie Hickson
Associate Producer: Rick Heinrichs
Unit Production Manager: Tom Leetch
Production Supervisor: Tom Leetch
Location Manager: Rolf Darbo
1st Assistant Director: Richard Learman
2nd Assistant Director: Scott Cameron
Script Supervisor: Doris Moody Chisholm
Casting: Bill Shepard, Joe Scully
Screenplay by: Lenny Ripps
Based on an original idea by: Tim Burton
Director of Photography: Thomas Ackerman
2nd Unit Photography: Peter Anderson, Rusty Geller
Camera Operator: Doug Knapp
1st Assistant Camera: Bill Waldman
2nd Assistant Camera: Richard Mosier
Lighting Gaffer: Ward Russell
Best Boy: Danny Delgado Jr
Key Grip: Essil Massinburg
Stills Photography: Ron Batzdorff
Special Effects: Roland Tantin, Hans Metz
Special Electrical Effects: Ed Angel
Visual Effects Animation: Allen Gonzales
Editor: Ernest Milano
Assistant Editor: Marty Stanovich
Art Director: John B. Mansbridge
Set Decorator: Roger Shook
Property Master: Gary Antista
Costume Department Supervisor: Jack Sandeen
Men's Costumer: Milton G. Mangum
Women's Costumer: Sandy Berke-jordan
Sparky's Make-up: Robert J. Schiffer
Make-up: Marvin J. McIntyre
Hair stylist: Connie Nichols
Music: Michael Convertino, David Newman
Music Supervisor: Jay Lawton
Music Editor: Jack Wadsworth
Music Scoring Mixer: Shawn Murphy
Sound Supervisor: Bob Hathaway
Sound Mixer: John Glascock
Re-recording Mixers: Richard Portman, Nick Alphin, Frank C. Regula
Sound Effects Editor: Joseph Parker
ADR Editor: Al Maguire
Stunt Player: Bob Herron, Donna Hall
Special Thanks: Clark Hunter, Ed Nunnery, Chris Buck
Trainers: Animal Actors of Hollywood, Christy Miele
Voice cast:
Shelley Duvall (*Susan Frankenstein*)
Daniel Stern (*Ben Frankenstein*)
Barret Oliver (*Victor Frankenstein*)
Joseph Maher (*Mr Chambers*)
Roz Braverman (*Mrs Epstein*)
Paul Bartel (*Mr Walab*)
Domino (*Ann Chambers*)
Jason Hervey (*Frank Dale*)
Paul C. Scott (*Mike Anderson*)
Helen Boll (*Mrs Curtis*)
USA 2012
87 mins
Digital

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From concept to filming, the making of *Frankenweenie* was a labour of love, involving a huge crew of artisans, animators, prop makers, puppet makers, designers and artists. Over the years it took to make *Frankenweenie*, Tim Burton was hands-on in every step of the process and the final result reflects his signature creativity and vision.

Stop-motion animation is one of the oldest animation styles and is a very hands-on process. There are 24 frames per second in the stop motion for *Frankenweenie*. This means that the animator must stop and reposition the puppet 24 times to get one second of filmed action. On average, one animator can only produce 5 seconds of animation per week. Multiple puppets of the same character allowed animators to work on more than one scene at once.

Filming *Frankenweenie* in stop-motion animation took two years and employed the skills of a multi-talented and diverse crew. 'There are a lot of people that go into making a film like this,' director Tim Burton says. 'The thing that makes it different than, say, a live-action film is that it happens in very slow-motion time. In live action you have to make quick decisions all the time; in stop-motion it may take a couple of days or couple of weeks to do a shot depending on its complexity.'

Much research and preparation went into animating the two dogs – Sparky and Persephone. Animation director Trey Thomas and his team conducted research on how dogs move, which included going to the Windsor Dog Show to videotape dogs in action. Then they had a bull terrier come into the studio and act out parts of Sparky's action and videotaped it from different angles. Poodles also visited and played out the role of Persephone. Thomas says, 'We were trying to get as authentic a replication of dog action as we could. We were trying to make it as real as possible with this Tim Burton-aesthetically designed Sparky version of a dog.'

On the film there were about 33 animators, who, for the most part, worked alone over the two years it took to film *Frankenweenie*. The typical week for a stop-motion animator began with being assigned a shot. The animator was responsible for all the characters in that shot. Once he had reviewed the assignment, the animator did a run-through or block rehearsal with the animation director. That process helped to decide the camera movement, the lighting and where the placement of props would be.

The next day the animator had time to actually do a proper rehearsal, where he could get into the specifics of the acting and the timing. Tim Burton and animation director Trey Thomas were very specific about what they wanted as far as the conveyance of emotion or humour.

The animator also spent time tensioning the puppet. Tensioning a puppet involves tightening the screws in the limbs and the joints in order to find what works best for them. Some animators wanted absolute precision, so they would use a tighter setting, while others preferred a gentler touch and would be looking for looser tensioning.

An animator had to spend hours working with the puppet to get all of the movement that was required, whether the puppet had to sit or stand or drink tea, or whatever other action it had to do. On the day of the shooting, the animator knew exactly what he was going for and began to process of shooting the 24 frames per second.

As the animator director, Trey Thomas was very actively involved. Every day he was visiting each set and helping the animators when a challenge arose. 'Each shot was like a puzzle piece of a larger picture, so it was just a frame-by-frame process of getting the puppets to emote and to act realistically and believably,' explains Thomas. 'Tim [Burton] was going for a believable style and he wanted the laws of physics to be in play and for everything to feel very real. He wanted a very real film that was genuine and sincere, and so that was what our animators were going for.'

Voices were matched up to the movement by using planning tools called dope sheets, which have every frame broken out with the dialogue in it. So, for example,

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Frankenweenie

Sat 3 Aug 18:00; Sun 11 Aug 14:30 BFI IMAX; Fri 30 Aug 20:30

Jason and the Argonauts

Sun 4 Aug 12:10 (+ intro by Alan Friswell, conservator and restorer of Ray Harryhausen's models); Wed 14 Aug 18:00

The Golden Voyage of Sinbad

Sun 4 Aug 14:50 (+ intro by Alan Friswell, conservator and restorer of Ray Harryhausen's models); Wed 14 Aug 20:30

Chicken Run

Sun 4 Aug 13:00; Sat 24 Aug 11:40

The Emperor's Nightingale

Císaruv slavík
Sun 4 Aug 20:30; Tue 13 Aug 18:20

ParaNorman

Mon 5 Aug 12:20; Thu 15 Aug 12:10; Wed 28 Aug 12:20

The Boxtrolls

Tue 6 Aug 12:20; Mon 12 Aug 14:10; Sat 17 Aug 12:00

Journey to the Beginning of Time

Cesta do praveku
Tue 6 Aug 20:30; Thu 22 Aug 18:30

Isle of Dogs

Wed 7 Aug 12:10; Sat 10 Aug 20:30; Sun 25 Aug 18:30

Kubo and the Two Strings

Thu 8 Aug 12:20; Sat 10 Aug 18:15 (+ Q&A with Travis Knight, director and President & CEO of LAIKA); Fri 30 Aug 12:20

Missing Link

Fri 9 Aug 12:30; Mon 26 Aug 15:20

The Tale of the Fox

Le Roman de Renard
Tue 13 Aug 20:30

Coraline

Fri 16 Aug 12:30; Sat 17 Aug 15:30; Wed 21 Aug 12:15; Thu 22 Aug 14:20

Stop-Motion Shorts Scene – BFI Backed + Q&A

Fri 16 Aug 18:10

Funday: Stop-Motion Children's Favourites

Sun 18 Aug 12:20

Stopmotion + Q&A with director Robert Morgan

Wed 21 Aug 20:40

Aardman Shorts

Sat 24 Aug 14:30

Tim Burton's Corpse Bride

Sun 25 Aug 14:30 BFI IMAX; Fri 30 Aug 18:20

Fantastic Mr Fox

Sun 25 Aug 16:15

Guillermo del Toro's Pinocchio

Tue 27 Aug 20:40

Tim Burton's The Nightmare Before Christmas

Thu 29 Aug 20:50

LAIKA: Frame x Frame

Embark on a journey behind the scenes of LAIKA, one of the world's foremost pioneers in stop-motion animation. This immersive new exhibition will transport you into the boundary-pushing art and science behind every one of the nearly one million meticulously constructed frames that bring each of LAIKA's five groundbreaking feature films to life. Opens Mon 12 Aug

Thanks to Jez Stewart, BFI National Archive

when the character said, 'Please, sit down,' the animator noted that as soon as the character finished that line, he gestured to a chair and then the other character sat down. The dope sheets helped the animator to organise his thoughts, especially when there were multiple characters in a shot and each character's action needed to be tracked – even if the character was just blinking.

Over 200 puppets were created for the film; there were 18 Victors and 15 Sparkys. Since each animator worked independently on different scenes, multiples were needed. They also needed backups in case a puppet required repair. The first puppet designed for the movie was Sparky, and the scale that they established with him set the standard for the whole rest of the film. Tim Burton had a very specific vision for Sparky's character and really wanted him to act and move like a real dog. The armature needed to be very intricate and four inches is literally the smallest they could make him and still have him display all the behaviour and personality that was required. Once they had Sparky's size fixed, the puppet makers were able to scale the rest of the characters properly.

The puppets all had different levels of articulation. Victor was the most complicated human puppet and his head mechanism contained not only lip and brow paddles, but also a complicated allen wrench system that allowed the animator to move his cheeks and jaw in tiny increments. This gave him the most subtle and varied acting capabilities. Other puppets, like Elsa Van Helsing and her uncle, Mr Burgemeister, had far less screen time and didn't need to exhibit the emotional range that Victor had to, so the animators were able to get what they needed with only lip paddles and eye-brow paddles.

Sparky was also an incredibly complicated puppet. There are over 300 joints in his body and because of the thinness of his legs he often needed to be supported with a special rig so that the animators could make him move realistically like a dog. 'Sparky never sits still,' says producer Allison Abbate, 'so it would have been impossible to stabilise him on those thin little legs. Now that we are able to remove rigs in post, the animators have complete freedom to have him scamper and jump around like a real, little dog.'

The complicated puppet-making process had several integral steps. First, Tim Burton did a sketch of character. The sketch was then sent to the puppet makers at Mackinnon and Saunders in the UK, who started to make 3D sculpts of the drawings, called maquettes. From that point, there were discussions back and forth between Tim Burton and the puppet makers to get the character where it should be artistically.

When size and all the other factors were set in stone, the artists did a final sculpt that was separate from the first maquette. This maquette had to be completely neutral with its arms to its sides, face looking forward and feet apart.

The next step was to make a mould of the maquette. Once the puppet maker had a mould, he was able to pull castings from it in order to make an armature. It was important at that stage for the puppet maker to look at the script and determine what the puppet needed to be able to do. Does the character sit down or eat or jump? With this information, the puppet makers could build the right kind of skeleton underneath to accommodate the required actions.

Armature makers had to be very precise as there were many tiny movable parts that had to fit exactly where they were supposed to in the body. Once the armature was designed, the puppet maker began to cast the puppets. The armature was laid in the mould and the silicone or latex was poured in. Often, the head was done separately from the body.

In the meantime, Tim Burton kept very busy working with the artists to design the costumes and pick out the perfect fabrics for the period that would complement his vision. The costumers would first need to make mock-ups of the costumes for Burton to approve, like the raincoats for Mr and Mrs Frankenstein. The costume makers then had to sew all the costumes by hand, using very tiny stitches to keep the clothing in scale.

Production notes