

# Stop Motion

Magazine™

April 2010 Issue #5

STOP MOTION

**In this Issue:**  
Mary & Max Review  
Barry Purves New Book  
Interview with Mark Sullivan  
Multi-Plane Tutorial  
Plus Much More

# Stop Motion Magazine™

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This Picture: Screen Novelties 3 Headed Dragon

## Letter from the Editor:

It's often said that life gets in the way of progress. Sometimes when you're so into your work or animation your responsibilities get pushed to the side and ignored. But in the case of doing what is right you might find yourself pushing what you truly love to do aside for a moment to pay attention to what is truly important. This issue was a lot of fun to make but do to my personal civic duties I had to serve Jury Duty for the County of Los Angeles. Since we are such a small publication putting out this very popular publication missing two weeks of work can greatly affect the deadline. For this I am very sorry but it happens. In my case this happens every year and there is no getting out of it. But as we grow so will our staff and in the future such deadlines will be met punctually.

In this issue you will find a great inside look at the studio Screen Novelties. They are truly a bunch of great guys that really are dedicated to making stop motion animation and their insight about the subject and their careers is really wonderful. What you won't find is an article about Kelly Mazurowski's Frame Grabbing Controller called the "Dingus". This is in part due to the top-secret trade secrets that filled the interview with Kelly about his device. Also we felt out of respect for Kelly once both parties reviewed the transcripts that the article, though great, was a little premature since Kelly is currently structuring his business. What's great about this though is Kelly has promised us an exclusive look in the near future about his wonderful device and a test drive once he is ready. We think he is a very brilliant person and a great animator and we can't wait to see what he has coming up. We also wanted to thank Mark Sullivan for an amazing look at his life and work. So with that we hope you enjoy this issue.

John Ikuma  
Executive Editor  
Stop Motion Magazine

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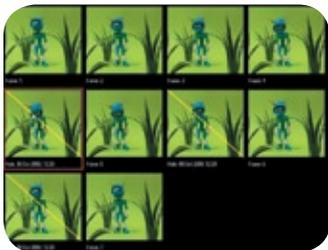
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# Mary and Max

Afilm by Adam Elliot, starring Toni Collette and Philip Seymour Hoffman

Review By Melissa Piekhaar

The latest stop-motion achievement from writer/director Adam Elliot (Brother, Cousin, Uncle, and the Academy Award-winning Harvie Krumpet), tells the tale of Mary, a lonely eight year old Australian girl, and Max, a heavysset New York recluse with Asberger's Syndrome.

Elliot's first feature length animation moves a little slow at times, but this allows the audience to better digest the emotionally charged themes: loneliness, depression, alcoholism, agoraphobia, obesity, self-loathing, and autism (Max has Asberger's syndrome). Max, 44, is an overweight, easily "confuzzled", atheist/Jewish chocolate lover and goldfish enthusiast who is sent into a mental tail

spin by Mary's letters, as his Asberger's stifles his ability to emote. Barry Humphries' exposition-laden narration, though constant, does not detract from the experience of the film, but instead supplements the sporadic use of character dialogue. Elliot's frequent use of close up shots, combined with the intense pathos of the richly developed characters, entices a heavy emotional pull from the viewer, but this is mollified by Humphries' lighthearted wit and humor. Whimsical details such as Max's succession of goldfish called Henry, collections of Noblets, chocolate hot dogs, and indoor chickens add levity to an otherwise heavy screenplay.

Elliot's post-Oscar fame has noticeably boosted the production value of Mary and Max, but he hasn't lost the ability to earn his audience's rapt attention. The compassion and empathy wrested from the viewer is perhaps at its peak when the story takes a turn into a theme of betrayal, and we witness the two main characters at their lowest: Max in his black and white (and sometimes red) New York City, and Mary in her sepia, sun-blasted Melbourne.

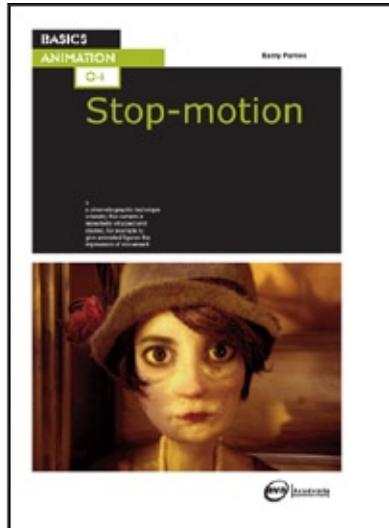
Mary and Max is not for young children. Teenagers might certainly identify with the themes of isolation and neglect, but the film is not just about isolation, or loneliness, or depression, or alcoholism, or Asberger's syndrome. It's mainly about friendship, self-acceptance, and the uncertainty of the human experience. Like the true life story it's based on, this movie does not tie itself up neatly with a string, perhaps making it even more accessible.

Flawless "clayography", expert animation, wonderful lighting, highly detailed sets, robust character development, and above all, an excellent story put Mary and Max among the best animated films of 2009.

Mary and Max will be available on DVD on June 15, 2010.

<http://www.maryandmax.com>





# Book Review: Stop-Motion

by Author Barry Purves

Review by: Pike Baker

The much-anticipated book by the legendary animator/director Barry Purves has just been released to the world. This new book is filled with everything that all other stop motion books are missing. In a sense, this is the must-have book for the stop motion animator that wants to learn what it is to be a professional. This fine piece of literature is not a how-to shop guide like all other books on the subject that are on the market today, but it is more of an in depth look into the vast world of model animation where the reader will find inspiration, new ideas, and a wealth of knowledge that only a master of animation could provide.

There are so many images filling the pages and so many different methods described within this book that on first glance the reader may become silly with excitement in seeing many behind the scenes pictures that have never been published before. Barry Purves delves into the practical methods used in professional work, and provides recommendations and examples of works of others for the budding animator. This is a very educational book and is designed for beginners, intermediates, and advanced animators. What this means is you won't be bored with how-to instructional methods that may be too advanced for many. But what you will find are methods very accessible to everyone with a passion for stop motion animation. It's with high marks that we recommend this book to anyone with the love and passion for such a truly beautiful art form. You can find this book on Amazon.com (ISBN-13:978-2-940373-73-4)

Title: Basics Animation 04: Stop-Motion, published by AVA Publishing.

About the Author: Barry Purves is a multi-award winning animator/director that has worked on such shows as The Wind in the Willows, The Pied Piper of Hamelin, Rupert the Bear, along with many other titles. He has also been Oscar-Nominated for his film Screen Play.

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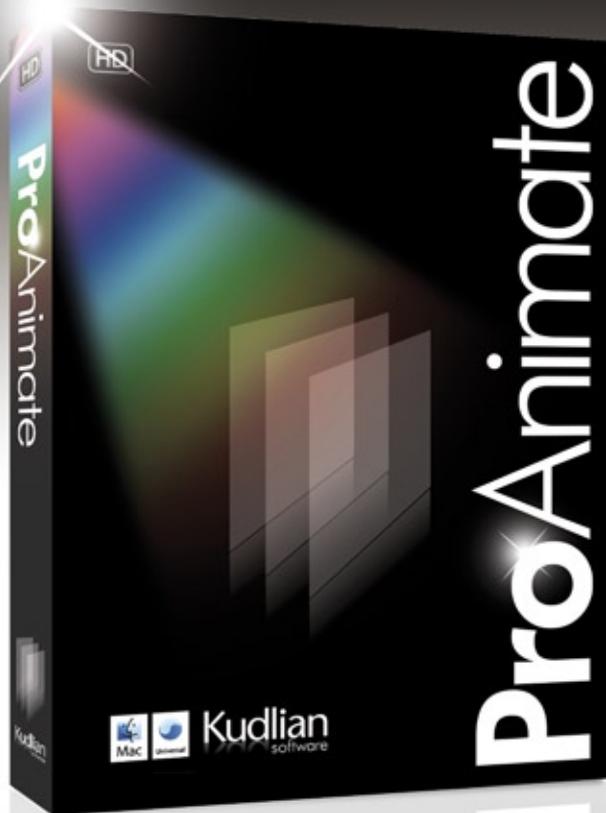
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*Inside*

# SCREEN NOVELTIES

by John Ikuma





Chris Finnegan Animating

Many of you may be familiar with the studio Screen Novelties (Chris Finnegan, Seamus Walsh, and Mike Caballero). Their work has been seen worldwide and they've collaborated with some of the biggest names in the field of Stop Motion. Much of their work stands out due to its stylized look and zany animation like their work on the Corn Pops commercial and their many contributions to shows airing on Nickelodeon. This plus their very rich knowledge of the puppet and clay animation field has made them one of the most sought after Stop-Mo studios in the US.

I ventured to Hollywood California to meet with the guys. Finding the location is somewhat tricky because their studio is hidden within the Melrose Ave area and you would never know it was there unless you were invited by one of the crew. Screen Novelties is one of those places that pulses with an energy and a vibe that reminds me of an old Looney Toons cartoon or even a Betty Boop world. They obviously love design and style and it's everywhere from the shelves with many puppets on the wall too their collection of video games, books, and records that must be a welcome distraction to the everyday grind of production deadlines.

I was very pleased that they would allow Stop Motion Magazine a look into their world and speak with us about their experiences. This is what they had to say.

SMM: How did you guys meet?

Mark: Seamus and I had done some short films. With those short films we got hired over at MTV for Celebrity Deathmatch and that's where we met Chris. Chris was going to school at Northwestern.

Chris: I had graduated from Northwestern in 97 and then made a short film there and then got hired at MTV in 98. Seamus, Mark and I all started with in one week of each other.

Mark: We had all worked at Celebrity Deathmatch for about a year or two and met a bunch of great people there and still keep those friendships.

Chris: Yeah, a lot of the animators that we still work with we met at Deathmatch.

Mark: After we had been working there for a couple of years Seamus and I came back down to L.A. and work on the Tortoise & the Hare. Later, Chris came down to help us on "Sweet J Presents" for Matt Senreich and Seth Green.

Chris: We officially started the company in 2003. (Asking Mark and Seamus) I'm trying to think, was the first paying job the SpongeBob Feature?

Seamus: We got asked to direct a commercial of Nike. They wanted us to transform Michael Vick into a Minotaur and face off with a three-headed dragon. Harryhausen style. That kind of jump-started us.

SMM: What was your next gig after that?

Mark: After the Nike job, the work sort of steamrolled in. A number of commercials, PSA's and stuff. It was around that time we did our short film, Monster Safari for Nickelodeon and helped Matt and Seth on Robot Chicken, formally known as Sweet J Presents.



Mark Cabellaro Animating

Chris: Yeah, we all came on board and helped start that and were able to bring our animator friends from around the country out here to L.A. After a couple of seasons, we split in order to concentrate on Screen Novelties stuff. We went on to work on Chowder and Flapjack for Cartoon Network.

SMM: What kind of challenges have you faced with starting a Professional Stop Motion Studio?

Mark: I think the hardest part was learning how to run a business...taxes, insurance and stuff. We just like to draw and push puppets around. Luckily, Chris is the smart one and knows how to read and put numbers together.

Chris: We all started out making short films on our own with maybe a couple of people helping out. But when you get these bigger projects, you have to learn how to manage people. And we don't really want to -



Seamus Walsh Animating

Chris (Continued): -spend our time being taskmasters. Fortunately we have a really tight knit group of artists and animators that are really chill and hard working that we don't really have to worry about cracking the whip too much.

Mark: Thankfully the stop motion community is small and everyone is really, really nice. Everyone is very supportive of each other. That's what's really cool. You know that you're going to be working with the same people until you grow old. Most other entertainment businesses you meet one person and you'll never see them again.

SMM: So would you say it's like a family?

Mark: Pretty much, it really is.

Chris: It's such a small specialty that there are only so many people doing it.

Seamus: Animation is already a small community of people and then you got the micro community of stop motion animators with in that...

Mark: We're like the Morlocks...

(Everyone Laughs)

It's like this weird race of people that live in the dark crevices of the planet, grunting and pushing things around.

SMM: Hahaha.. And then the horn blows and we all come out every once and awhile.

Mark: Yeah for food.

SMM: How did you guys develop your techniques?

Seamus: I think we still are (developing). We're always getting inspired by new stuff. It just sort of builds over time. The original thing that got us excited about stop motion was trying to bring the 2D sense of timing and staging into stop motion. Because, it's something you hadn't really seen since say, George Pal's Puppets. A lot of stop motion is very driven by the technique itself and can be very limiting. You need to have the mindset of breaking out of that way of thinking and get to animating any way you want.

Mark: Character animation is the kind of thing that we like to push for. And how important it really is to make sure that the way one character moves is very distinct from the other character it's interacting with. If everything moves the same way, then that shot will lack personality.

Seamus: Pushing the design. We're very focused on designing everything around movement and making movement happen within a design. When we design a character it kind of already has its movement pre-installed. You already can picture how it's going to move when it's a 2D drawing on a page. We like working in that way. Like Mark was saying, -



Chris (Continued): But we occasionally generate stuff on the computer, but that's pretty rare. But we do use After Effects and compositing software quite a bit to help enhance what we shoot practically.

Seamus: We try to keep it as organic as possible. If we are going to do fire or something we'll do some stylized thing out of cut paper and gels and weird materials. It just ends up looking more stop motion-ee.

SMM: Do you like to do build up puppets and do you skin them with Liquid Latex?

Mark: It depends on the design of the puppet. We like every fabrication method (build-up, foam latex, etc) but we'll let the design and length of the filmed piece dictate how we're going to technically approach it.

Seamus: If we know we are going to make multiples then it makes total sense to go the foam latex route.

Mark: Yeah, but if it's just one puppet for a short scene, then it's just easier to do build it up. We'll usually skin the puppets with fur or some sort of fabric. We don't necessarily feel like it's always gotta be a puppet with a smooth surface.

Seamus: A lot of times we like to make things with materials with interesting texture. I guess that's why we don't do a lot of clay animation because it's all kind of the same texture.

SMM: How do you approach your character design?

Seamus: Even if the character is just standing you should pretty much know what his whole deal is. The characters personality is just there visually and he doesn't have to talk or move and you kind of get the vibe of the character.

Seamus (Continued): -it makes you have a distinct personality for each character and everything doesn't move exactly the same.

Chris: And as far as the look of our characters and sets, we try to put an emphasis not just on design but also textures. One advantage to stop motion is that you're photographing real objects and you have all these different materials with cool textures at your disposal.

SMM: Do you guys ever use any computer effects in your work?

Seamus: Do you mean CGI elements? Because we do use computers to remove rods and composite and stuff.

SMM: Yeah, like fire and smoke, particle waves, stuff like that.

Chris: Some of that. We tend to try and shoot effects practically and then as a separate layer we lay it over as a composite.



Seamus Walsh and Jeff Cross prepping a set.

SMM: Did you go to school to learn how to design your puppets and sets?

Seamus: We sort of took all kinds of classes. I sort of college shuffled around and was mostly an English and history major and then I met Mark at UCLA.

Mark: We took the film classes there but found a little difficulty finding information on stop motion. We asked around and read the effects magazines like Cinefex.

Seamus: Yeah, we basically knew there was no school to do stop motion. We just wanted to make films with puppets and stop motion and animation. You just kind of have to make up your own curriculum when you want to do that. So a lot of it was just saying “look we’re going to see everything we can get our hands on that has been made in this kind of art form”.

Mark: We pretty much taught ourselves. We did a ton of research on animation and design.

Seamus: We rented a bunch of videos at a local video store called “Eddie Brandt’s Saturday Matinee”. The cool thing about Eddie Brandt’s was that it wasn’t just stuff that had been commercially available. A lot of it was stuff that had been transferred off of 16mm prints that collectors had.

Mark: The whole place was run by film historians. All you had to do was just go in there.

SMM: How long have you guys been animating for?

Seamus: About 15 or 16 years. The Chiodo Brothers gave me my first job.



From Left to Right: Misha Klein, Mark Cabellaro, Seamus Walsh in the puppet and prop department.

Mark: And I was working at a post-production house, recording cartoons as a dialogue engineer.

Seamus: We would work on short films on nights and weekends in our garage.

Mark: Our first film got some attention through the film festival circuit. That’s how we got our jobs at Celebrity Deathmatch.

Seamus: They had a hard time finding people. It was like 97 or 98.

Mark: It was a weird time. There wasn’t a lot of stop motion going on for a while so the people at Deathmatch were looking for anyone that knew how to move a puppet. As a result, there was this really cool/weird mix of experience in our little group of animators. We came from all over.



Mark Camellaro on the set of Monster Safari

Seamus: Yeah, there was the New York people and some came out of L.A., Portland, Chicago... Chris (Finnegan) came from Chicago. It was a really cool group of people.

Mark: The entire production was pretty inexperienced when it came to running a stop motion series. But that was okay because it gave us some freedom as animators. We were able to hone our own individual visual styles with the animation. It was really fun and we would challenge each other everyday. We'd all sneak into each other's shoot rooms, watch dailies and goof around.

Seamus: That was the when Lunch Boxes (frame grabbers) were becoming available. In fact, the first season I think there was one Lunch Box that we all had to share. It was cool because that was the first time all that stuff was becoming available so everyone was starting to play with the 2D traditional timing and staging. That was the first time you could practically put that into use. Of course George Pal and people -

Seamus (Continued): -like that were doing it way back then but that whole tradition had been sort of lost. I just remember everyone watching a lot of 2D cartoons and trying to bring that sort of timing back into stop motion.

Mark: It was fun. It was a very unique time for new animators to get started. The coolest part is that we still keep in touch with all of those animators. We have special places in our hearts for them for sure. We were there for a couple of years and during that time we were communicating with Ray Harryhausen about the Tortoise & the Hare. We finally felt that we were at a point that we could start on it.

After The Tortoise and the Hare, we jumped into producing a sequence for a Flintstones special on Cartoon Network. Then we did these weird, little internet shorts called "Sweet J Presents" for Seth and Matt. That later became Robot Chicken. Chris jumped in during Sweet J. After a year or two, we formed Screen Novelties

Seamus: We pay the bills here by doing a few commercial and side projects off and on. We've worked a lot with Cartoon Network and Nickelodeon doing interstitial bits or title sequences and that kind of stuff.

Mark: Working on commercials, interstitials and other outside projects teaches you a whole new level of patience. You have to be ready to change something at the drop of a hat. But that's good sometimes because it makes you keep an open mind to change something regardless of what stage of completion it's in. We try to apply that to our personal projects.

SMM: Did you work on the SpongeBob Movie?

Seamus: We did work on the movie actually. Just really briefly we did a clay head.

Mark: Yeah if you blink, you'll miss it.

Seamus: You barely know its there. But that sequence led to our involvement with re-imagining the new opening sequence for SpongeBob's 10th Anniversary Special.

SMM: How do you guys feel about stop motion in main stream media and how it's perceived as a low budget art form?

Mark: It's exciting to see all this stop motion get some attention in the main stream. I think the handmade look of it tends to lead people on to thinking its low budget. It's funny because not that long ago, everyone was saying it's too expensive. It just depends on what the project is and who's doing it. Tim Burton can bring in a 40 million budget but lesser known entities might only have a teeny, tiny portion of that.

Seamus: A lot of people really underestimate what it takes to do it.



Kelly Mazurowski setting up SpongeBob Logo



The boy's setting up a shot for SpongeBob 10th Anniversary





Kelly Mazurowski animating Pops Commercial



Robin Walsh and Lisa Davis making puppet clothes



Meaghan Ross working on set element

Mark: Stop motion can be the most accessible form of animation out there. Anybody anywhere can get a cheap, digital camera, a glob of clay and animate something. But it's something else if you have to make that creation maintain a sense of character and continuity of motion. Not to mention a rigorous schedule to keep.

Seamus: Most of the people that see stop motion now days just assume that it's done on a computer. I'm sure most of the people that saw Corpse Bride thought it was CG and didn't care about the technique. Only geeky type people like us care about the technique. We love working in the medium of stop motion and love exploiting the handmade aesthetic.

SMM: What do you guys think about the fact that a lot of stop motion studios were started in garages?

Seamus: I think it's that way even with inventors. A lot of people are like "Oh yeah I invented this new whatever". That's where everyone goes to do their hobby stuff. Sometimes it goes from being a hobby garage project into Coraline.

Mark: You'll know pretty soon if you get bit by the bug or not. A garage is a convenient place to shoot. I'd never use the garage to park a car in, that's silly. I'd rather just make stuff there.



Mark Cabellaro Animating on Hallmark Commercial



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# Looking back...

In which we look at films that got stop-motion where it is today. By **Marnik Loysen**

In 1938, Ladislav Starevich released his first ever feature-length stop motion animation, entitled "The Tale of the Fox". Ladislav was a Polish puppet animator, who's animated film was one of the first to have sound.

He began by animating dead animals, creating such films as The Beautiful Leukanida, a fairy tale of beetles. Ladislav was discouraged by the lack of facial expressions on the insects, so he began experimenting with puppets. In 1926, he released an extraordinary short film, "Town Rat, Country Rat" which featured many Rat puppets, each with a different character. Later that year he began work on what was to be his greatest film - "The Tale of the Fox", but it was not released until 1938.

In the kingdom of animals, the fox Renard is used to tricking and fooling everyone. Consequently, the King (a lion), receives more and more complaints. Finally, he orders Renard to be arrested and brought before the throne.

The clever plot is pulled together with a wonderful music score by Vincent Scotto, and perfectly fluid animation accompanied by French voice actors. The puppets are brought to life with exact movement and timing. The sets and models are beautiful - every

shot has something to look forward to, whether it's an angry crow complaining to a nervous rabbit in a dress, or tiny rats running around, a majestic lion looking over his kingdom, or a group of birds fluttering amongst the trees. All animated to exceptional standards. The lighting, scenery and props are all realistic to the point of making you wonder if your still watching an animated film. Any animator will be truly inspired by this film, so I very much recommend it. You can find it on various parts of the internet.

So why is this relivant? Well, on my first time watching this film, I noticed it bears a striking resemblance to the 2009 movie,

"Fantastic Mr Fox", directed by Wes Anderson. This also is a wonderful film, but seems to have borrowed some things, such as character design, from "The Tale of the Fox". All in all, I think this is great - not copying, but more like keeping the old film alive.

Ladislav's film takes you on a brilliant journey through a stop-motion world where animals speak French and wear human clothes, and stay more characterized then most modern films. It deserves to be seen by all animators and film enthusiasts, as I am sure you will be very impressed. Let's hope to see more films like this one...



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# INTERVIEW WITH MARK SULLIVAN

By Adrian Encinas

Mark Sullivan is a famous Matte Painting artist, but he is also a stop-motion animator who has worked on a lot of films and projects using this never die technique. It's time to learn more about his contribution to this awesome kind of magic:

SMM: What are the films that inspire you?

Mark: "2001: A Space Odyssey", "Once Upon A Time In The West" and "King Kong" (1933) were the movies that made a big impression on me when I was young. Later, I saw some of Ray Harryhausen's movies on television, and I loved those too. The "King Kong" Skull Island settings really affected me. Seeing those scenes was like being inside of some mad genius artist's fever dream. The procession of outrageous yet lucid landscapes and the super energized prehistoric beasts, one after another. I'd just never seen anything like it before. I didn't know a movie could be so visually rewarding, or that those visuals could affect me so. It was like taking a strong drug.

When I was in school, I remember some of my friends telling me they didn't like Kong because it seemed fake, or unrealistic to them.



A young Mark Sullivan on the set of his version of King Kong at age 16.

To me, it was much better than realistic. After seeing Kong, I got interested in film effects, and during the seventies, I read about some brilliant people like Ray Harryhausen, Albert Whitlock and Jim Danforth. Some of Jim Danforth's work in "When Dinosaurs Ruled The Earth" really seized that same grandeur that the "Kong" work had.



SMM: Why did you make your version of King Kong?

Mark: The King Kong footage was just sort of an assignment I gave myself when I was 15 or 16. I was copying a few of the Empire State Building sequence shots. It seemed like it would be a very hard thing to do, so I thought I'd learn something, or at least appreciate what the pioneers did. Before that, I filmed some Super 8 scenes with some pretty wild, and kind of goofy looking stop motion creatures, and I think I sensed my design abilities, -or inabilities, to concoct a setting or animal directly from my imagination would get a little too far out and silly sometimes. So copying the Kong shots for a few months was just about slowing down, and trying to concentrate on the craft. A couple years later, I made a little sci fi mood piece Super 8 film for a design class I had in college, but I soon realized doing a film, and animation experiments in 16mm was a step much closer to how the professionals worked.

What was great about working on animation and film effects back then, I mean in the '70's and '80's, was that you could go out to a hardware or art supply store, and buy a lot of the stuff you needed, and except for something like an optical printer or process projector, you were basically working the same way as the professionals were working, just on a much smaller scale.

SMM: What materials did you use to create the puppet?

Mark: The Kong puppet had a ball and socket armature. I put it together in my high school metal shop. I didn't know about annealing, so I thought it would be impossible to drill steel ball bearings. I ended up trying to turn the ball shapes on a metal lathe! Some of them just were not spherical enough to work, but some of them were okay. I didn't know where to buy metal stock, so I used some band iron that happened to be in the school shop, for the socket plates.

Later on, I found a place that sold brass metal stock, which worked well except that it would react with the rubber, as most people know who have gone through these puppet building experiences. The body of the Kong model was built up from some yellow pillow type of foam rubber my Mom had. It wasn't very good stuff to use, because it kept shrinking with the Weldwood brand contact cement. My Kong puppet kept getting more skinny as I animated. I found a souvenir shop that sold rabbit skins, so I cut them into half inch strips and glued them onto the foam rubber body for Kong's fur. The face and hands were sculpted in clay, then I made plaster molds, and then latex slip castings from those molds.

SMM: Have you always wanted to be a professional in cinema?

Mark: After seeing "King Kong", and some effects in movies like "The Hindenburg", "Earthquake" and "When Dinosaurs Ruled the Earth", I eventually bought a Super 8 camera, and had fun either trying to make some short narrative films, or just trying to copy some effects shots I'd seen in movies. Looking back, a lot of my work was crap, but I enjoyed seeing some gradual improvements. When I was young, I was either blessed or cursed with a certain type of myopic mental state where the animation, painting and effects stuff seemed more important to me than anything else in life. Later, trying to make a living with the film effects work was really just a symptom of not wanting to give up something I was kind of obsessed with.



SMM: How did you get the idea for your short project Highrise?

Mark: When I was about 18, just for fun I did a painting showing flying saucers lifting some skyscraper buildings out of a city. About a year later I got the idea that it would be fun to film the idea, or something like it. I had to wait for a bus when I was going to school, and the bus stop was near the building in my film, so I knew already where I wanted to film it.

The "Highrise" short was thought up as kind of an absurdist narrative, but it was really just a demo reel of some animation, and matte painting effects shots.



I had a copy of “The Technique of Special Effects Cinematography” by Raymond Fielding, and a couple American Cinematographer articles on Albert Whitlock, so “High-rise” was a Petri dish for trying out some animation effects techniques I had read about.

SMM: How long did it take you to do it?

Mark: Roughly 2 and a half years. I started storyboarding it in 1979. I think I had it finished around the end of 1981. It was a learning experience. Just about every shot in the film was done at least twice, some of them 5 or 6 times. I had trouble hiding the wires, or I wouldn't get a counter matte to line up with an original matte, or a light would burn out during animation, -or you name it. I just didn't know a lot of basic things either. I didn't know not to change the f stop when putting together a split screen shot, or I would spend days on a painting, and then put my models in front of it, and the models would cover up hours of painting work. I quickly learned not to start a painting background until other things were in place.

SMM: Did you animate all the scenes?

Mark: Yes, all of the movements of the alien craft, and the flying building were stop motion. It was really the only way to do it, I think. With animation, I could stop the lens down to f.22, and use a 5 second exposure, and have much more control over the photography that way.



I used fishing line, weights and pulleys, and my friend Ted Rae gave me some old guitar tuners to use as crank controls.

SMM: Did you make the puppet? What materials did you use for it?

Mark: The alien spacecraft was carved out of Styrofoam. After the shape was there, and sanded smooth, I applied a few coats of Liquitex modeling paste, then sanded those coats smooth. I then glued on some tiny model kit parts for small details, though now I think the spaceship would've looked better with less busy details. I saw an old 1960's VW beetle, painted metallic lime green, at a car show once. It gave me the idea to give the spaceship a more rounded insectoid look, with a wild paint job.

SMM: Do you remember if was shot in 16mm or 8mm? In 12 frames per second or 24 frames per second?

Mark: The film was shot using a 16mm Bolex Rex 5 camera. I love that little camera. You can take it anywhere, and shoot anything. Plus, it has frame accurate backwinding, which back then, before computer compositing, was a necessity. Since I was going to add sound, I shot at 24 frames per second.

SMM: Did you win any awards with this short?

Mark: Except for one film contest, I didn't enter it in any contests. It makes me happy if people see it, and like it in anyway, but I really did it just to gain some experience, and use it as a kind of sample piece to show people that I was interested in film photographic effects.



SMM: What do you remember about your work for the Bring 'Em Back Alive series?

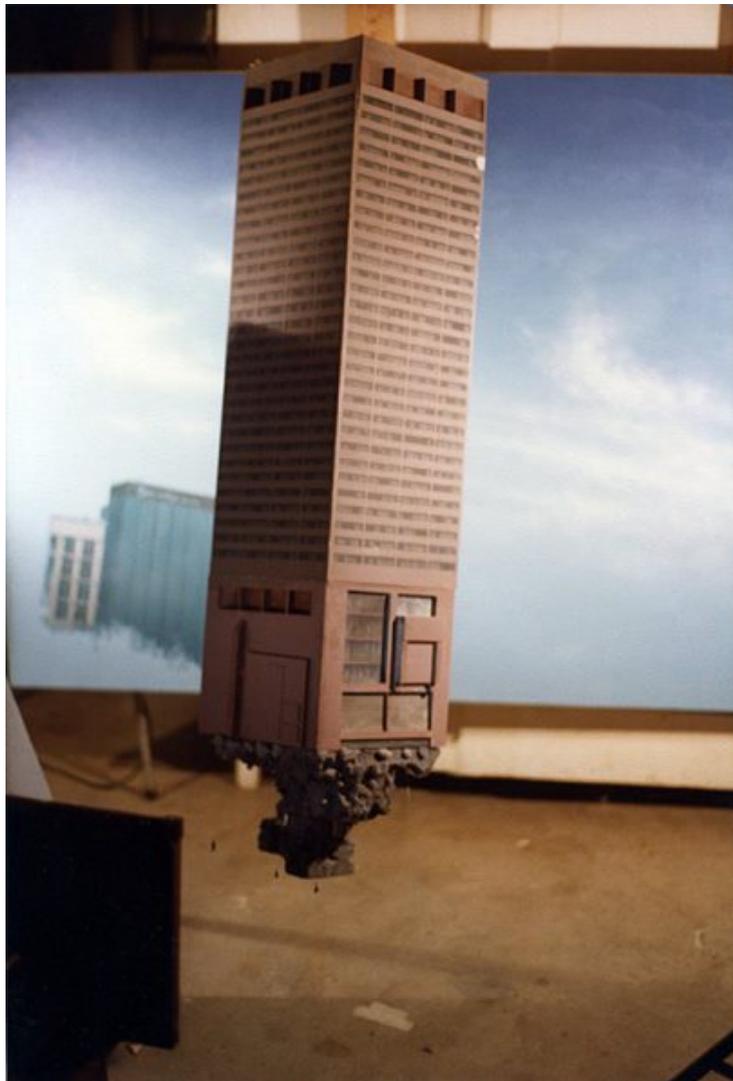
Mark: Working on the “Bring 'Em Back Alive” television series was a fantastic learning experience, and it was my first job in the effects business. Jim and Karen Danforth hired me to work as an assistant at their effects studio in Van Nuys. I could watch how Jim designed and painted matte paintings, and how he prepared the color corrected process projection plates to work with the glass matte paintings. I helped with creating some miniatures, too, like some Styrofoam cliffs used for shooting a miniature water-fall, and some stop motion birds. All of the matte painting shots were painted on sheets of glass that were positioned on a dedicated stand in front of a back projected, frame by frame image of the live action, similar to how Ray Harryhausen, David Allen and Jim used to integrate their stop motion models into shots. But instead of puppets, glass paintings were in front of the back projection screen, with the clear, scraped away area of the glass painting revealing the projected live action.

I was also involved in a fairly complex matte painting and miniature shot Jim put together for “Twilight Zone, The Motion Picture”, and later some preproduction matte paintings and art for a film script Jim was developing at that time. I probably could not have worked with a more talented and knowledgeable person in the film effects business. I wished I had been a little older and more aware at that time, because some things were just over my head.



SMM: In Pee Wee’s Big Adventure, you animated a puppet being catapulted through the air. Did you make the puppet, or did you just animate it?

Mark: This shot was done pretty quickly at DreamQuest, a film effects company that Rocco Gioffre was part owner of, back then. Rocco made the foam rubber puppet of Francis, with a wire armature. It was painted all bright white, and animated against a black background, because the image reverse was going to be used to depict Francis as a shadow flying in front of the drive in movie theatre screen. I animated the puppet with a swimming motion, which seemed to make sense as something for him to be doing in mid air. It was a very brief shot.



SMM: House (1985) is one of my favorite family horror films, with great special effects and a curious monster story. For this film you made the Bat winged demon who attacks the main character. I read in a book that you made the design of the creature based on the beast that appeared in the poster of Galaxy of Horror... really?

Mark: I don't really know anything about the "Galaxy of Horror" poster. Steve Minor, the director of "House" had filmed the winged demon sequence with a live action, floppy type of rubber puppet, but it ended up looking a little lifeless in the final cut, so he asked the guys running DreamQuest if they could replace the few cuts of it with something different. The DreamQuest people knew I was kind of a stop motion fan, so they let me build and animate the creature. I got together some books on human anatomy, and Rocco's girlfriend loaned me a (reproduction) human skull that she owned, for reference. I tried to make the head, shoulders and arms a little more human looking than the original puppet. The head was sculpted out of Sculpey, and the teeth were ground and sanded nails, glued into the Sculpey skull. I sculpted the body out of oil based clay, and made a hydrocal mold of it. The armature was made out of ball and socket parts I owned, along with some parts Rocco bought from Bill Hedge. The armature was placed into the mold, and the mold had foam latex rubber injected into it. I'm glad the casting worked the first time, because there was very little time to allow anything being done over again.



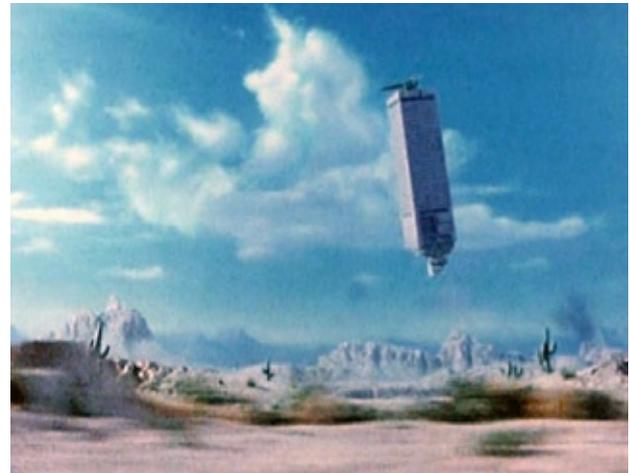
SMM: What size is the puppet?

Mark: From head to tail, the body was about a foot long, or 30 centimeters, and the wingspan was about 2 feet, or 62 centimeters.

SMM: How did you create the effect of shooting (fire everywhere) in the cannon of the shotgun?

Mark: That was probably the most fun part of the whole sequence. It was Rocco's idea, I think, to have the Dingo-bat creature do the "Rifleman" gun spin before he shoots, which was a funny character thing. When we ran the shot in dailies, we got a pretty good laugh. The gun blast was animated 2d artwork shot with a 45 degree beam splitter in front of the camera lens, so what was going on was the camera photographing the winged demon was also photographing a glass reflection of the artwork, at the same time.

This allowed it to be done quickly, in camera, without having to do an optical dupe. The reddish fade, or dimming down of the gun flash glow, was done by animating a couple Variacs, which are adjustable voltage controllers. The Variacs were hooked up to both the light illuminating the gun flash artwork, and a light on the puppet to simulate it receiving some light from the gun flash. The effect only needed to last about 4 or 5 frames. All of the work for the sequence, including building the puppet, and animating the shots, had to be done in about 3 weeks. I think it took about 10 days to build the puppet, and the animation shooting went right up to the day before it all had to be delivered. The fact that the background for the sequence was just a black limbo made the whole thing much easier to do, compared to matting into a location or set. The little sequence really whizzes by in the movie.





SMM: In House 2 you animated the brontosaur and the pteranodon. Did you make the puppets too?

Mark: The mother pteranodon was designed by Chris Wallas' company. I put together the armature, and sculpted the body out of Roma clay, then made a three piece Hydrocal mold. The model had about a three foot wingspan. I worked on that model for about 3 to 4 weeks, along with building the brontosaur at the same time.

The brontosaur model was only a little over a foot long, which is a pretty small model if you have to animate it moving slowly. It had wire for the neck and tail, and quarter inch ball sockets for the legs. The original plan with the shot that featured the brontosaur was just a matte painting of the jungle, with an active volcano in the background. I volunteered adding a brontosaur into the shot, because I'd always wanted to animate one, and I thought it would look good in the setting. The deal was I was going to have to build the model, and shoot it on my own at my studio, and not at Dream Quest,



or on Dream Quest's time because a stop motion dinosaur wasn't in the budget for that shot. The film footage I shot of the brontosaur at my studio was printed as a registered color print onto 5384 stock, and bipacked in the matte painting camera at Dream Quest, with the camera original negative of the actors walking into the jungle. I then made a special "reflection board" matte painting that functioned as kind of contact printing light, and only allowed select areas of the brontosaur animation to expose onto the original negative.

Another matte painting filled in the unexposed silhouette type of areas created by the "reflection board" matte painting. The neat thing about this process was that I could actually paint in aerial haze that exposed a light density over the brontosaur, to suggest distance and make it seem as though the brontosaur was an eighth of a mile away. I think this trick helped to give the shot a little depth, and make the brontosaur look like it was big. Of course these kinds of tricks are now done routinely with digital compositing.

SMM: Did you animate the Blob in the 80's remake?

Mark: I worked on a shot of a giant tongue shaped blob that rolled down and crushed a person. This was another Dream Quest project that I was hired onto to do some animation. I recall we did 2 versions of the shot, because the stop motion model that had been fabricated by Dream Quest had a pretty crude armature that didn't move very smoothly. Part of the problem may have been that the animation model was enormous, around 4 feet in length as I recall. The joints had to be tightened down a lot to allow it to support itself, which made the animation really difficult. I convinced the Dream Quest people to allow me to build a smaller replacement model, using some ball and socket joints I had on hand. I think I put the whole puppet model together in a day, it was a fairly crude model, but it was much easier to animate, and we did the animation over with the new model.

SMM: The next stop-mo film in your career is Robocop 2, one of my favorite stop motion films of the 90s. Did you animate the mad Cain?

Mark: Yes, about a dozen shots I think. I came in towards the end of the project, for about 3 months just to help get a few of the shots done. I mostly worked on close up, or medium shots of Cain. I was the least experienced of the animators Phil had on staff, so I worked on some of the simpler shots.

SMM: How many people worked together to create all those great stop-motion sequences?

Phil had some truly phenomenal people working there on Robocop 2. Everyone at his studio was so good at what they were doing (and still are). The armatures and models were just amazing works of art. I think there might have been about 20 or 25 people at Phil's studio on Robocop 2, including about 9 animators.

Mark: In your film life, you have worked in low budget FX studios, and in the great ILM. Was it really different for you to work on Highway to Hell and The Rocketeer?

SMM: Well, funny enough, not really. Because at that time, the matte paintings were actually oil paintings on glass or panel, so in terms of the painting work at least, it was pretty much the same. ILM had a lot of great technical support, a full staff of very skilled camera people, and usually pretty nice budgets, which meant there might have been a little more time to do something, or a chance to go back and correct something later.



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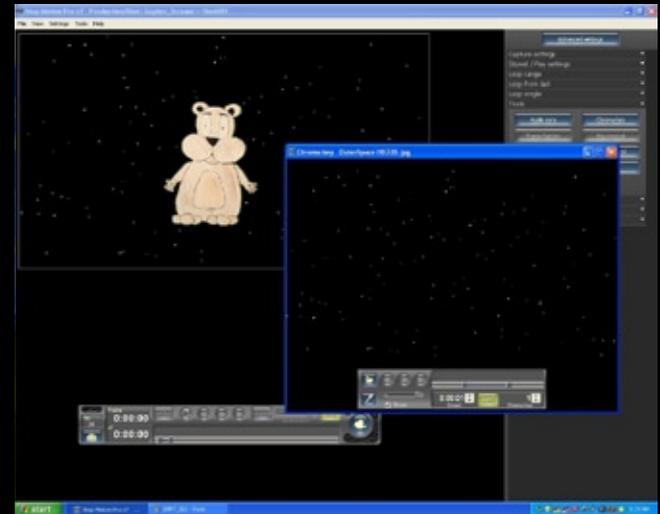


I then thought that my exposures were a little too bright so I located the camera control options on the side menu of the production window and found all sorts of tools that any filmmaker would want to control their exposure. I adjusted the white balance, the levels, and brightness and once I was done I tested out the results. What I found was that the software completely did what it was supposed to do and took over the control of the camera.

The results were great and I was happy to see there were no issues with any of the camera controls using the Canon Rebel XS with this software. I then proceeded to snap off about 300 frames while moving random objects around on the Multi-plane animation table. Once I was done I played them back in full resolution and was blown away at how smooth the play back was. There were no hiccups and no slowing of the video clip. This is often a problem with other software's that will remain nameless. But I can tell you that frustration is often the inspiration killer when you're trying to animate or set up a shot and deal with your timing with slow playback. The 30fps playback on Stop Motion Pro 7 was flawless.

Once I was finished previewing my frames I thought I would take the editing function for a quick spin. In the editing window I could see every frame laid out in order and could spot the first half of the shot that I wanted to delete. I could choose to hide those frames and then delete them. So I selected and deleted the frames and it was flawless and had absolutely no headaches.

The Chroma-Key feature was an absolute dream to use. I do a lot of work professionally that requires many layers to be animated separately and then composited together.

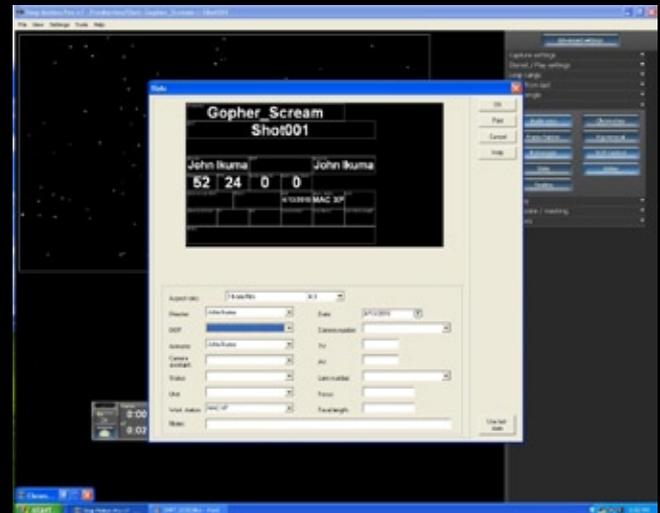
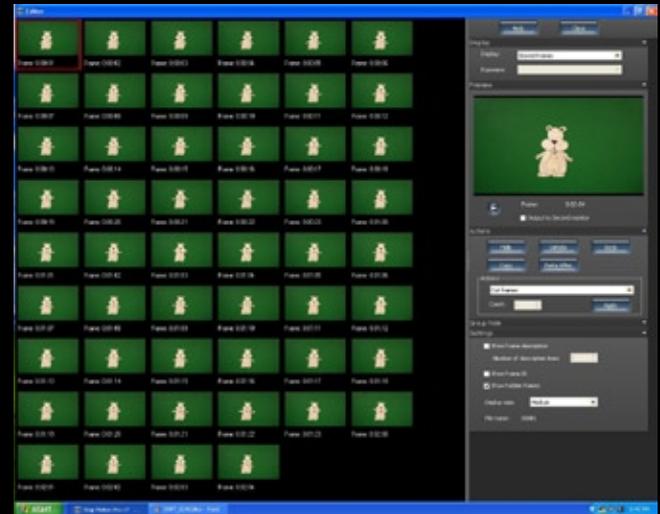


What I found was importing the layer and syncing it with the top layer yielded great results. In fact I didn't even need to composite my two layers in a different software. Stop Motion Pro 7 easily added my background and made the paper cutout of the gopher look like it was in space. I could also switch my view between the captured preview frames and the stored frames.

Some extremely useful functions that I didn't even realize that I would ever need were the Slate tool and Paint tool. I usually place a card in the beginning of my shots but this often looks messy and doesn't have all the information. With the Slate tool I was able to add all the necessary info that a professional production would need and it looks mega cool. You will need to enter all the information under System Settings in SMP7 first and then in the slate tab you can select all the necessary information for the production.

The Paint tool was fun and decided I wanted a purple laser beam circling the Gopher in Space. At first I painted on the stored frames without the key and then quickly realized that this was wrong. I then switched to my stored frames with the key and I was able to paint on each individual frame. The playback was all there and I was pleasantly happy that this function was in the software.

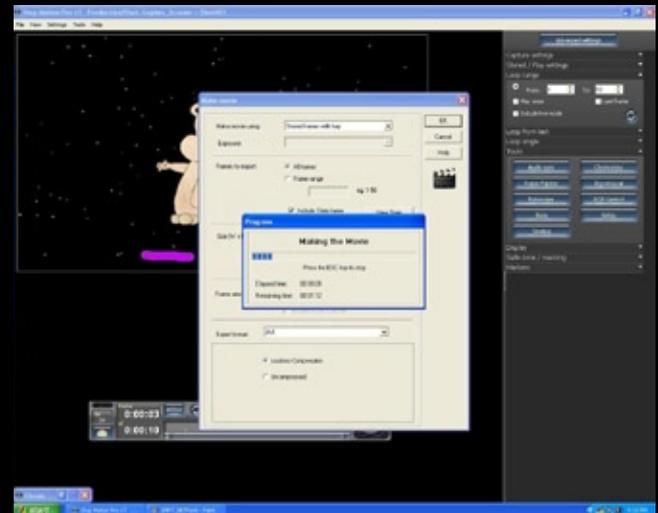
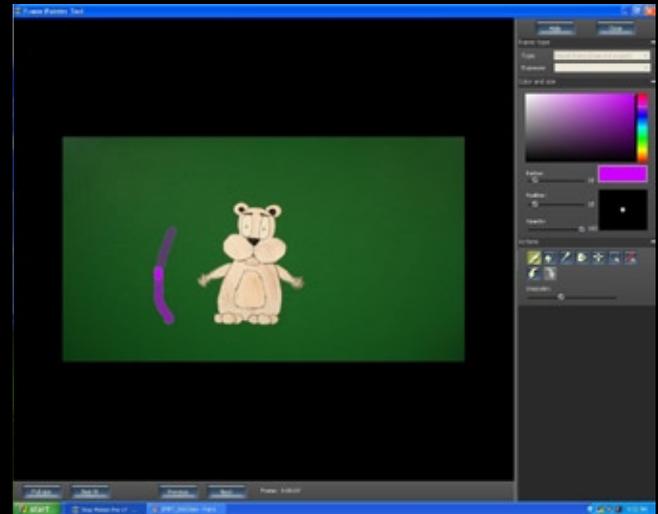
There is an audio recording function in SMP7. But since my hardware wasn't properly prepped for audio recording in XP I wasn't able to utilize this function. Also the wire removal tool and Rotoscoping functions are something I definitely want to explore more and will have to set up a shot and maybe a follow up review in a future issue of SMM to explore these options further.



Once I was completely happy with my animation I was able to export it as an AVI to my storage device. This was quick and easy with the final output looking great. Hands down this is my new favorite software and I would definitely consider buying multiple copies of this software to use on big projects. Since I was working on a Mac I had no harddrive issues when swapping data and my workflow was uninterrupted. This usually is an issue when using PC's and Mac's together. But since both operating systems are on one machine I was able to fly through production. I would also like to mention that there was no crashing and the software screamed through the animation process.

Stop Motion Pro 7 comes in many flavors and price points. SMP7 Studio Plus and Studio are the professional level softwares for studio production and offer a large array of features. SMP7 Action! HD Plus is very close to it's Studio counterpart but has a couple features removed like 3D shooting and Raw file import. Action! Plus and Action! Are great starter softwares for hobbyists and beginners.

My personal advice would be to just purchase the Action! HD Plus which runs about \$295 in US dollars if you want a professional level software. Or if your just planning to do Webcam shooting then the Action! Plus (\$175 U.S.) or Action! (\$70 U.S.) Versions are perfect and you will definitely expect to have fun. SMP7 runs only on Windows operating systems. To find out more about SMP7, compare flavors, and download a demo version go to [www.stopmotionpro.com](http://www.stopmotionpro.com).



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## stop-mo•tion ani•ma•tion

noun [usu. as adj.]  
a cinematographic technique that gives the impression of movement to inanimate objects. (such as puppets built with schwweeeeeeet ball & socket armatures)



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# Tutorial: Vertical Multi-Plane Shooter

by John Ikuma

The early golden age of cartoons saw many great achievements with such things as sound in cinema, color film stock, readily available cheap camera's, and probably the most glorious but forgotten Multi-Plane Camera. The Multi-Plane shooter or vertical shooter as we like to call it was created to give animated cell drawings depth. The many levels of platters and glass allowed the animator to move their backgrounds and give the viewer the illusion of movement with in an environment.

In this modern day of Computer animation the multi-plane camera has been retired to the warehouses and museums of animation history. But in stop motion animation this wonderful device is very much alive and well. Simple set ups consist of a tripod strapped to a table with the camera positioned down at the tables surface. This is usually called a down shooter. The one disadvantage of the down shooter single plane setup is the lack of depth. But for most this is enough to achieve the look and feel they are after. For the rest of us who want to have greater control over our work and add multiple layers of animation, the Vertical Multi-Plane Shooter is by far the better choice.

Here we will show you how to make a Vertical Multi-plane shooter for use with clay, paper, sand, and whatever else you would like to animate on it. This table set up is a perfect choice for students too professional studios that want to be able to have a reliable permanent set up that will last years and cost very little compared to the Multi-planes of yesteryears past. This shooter is versatile, mobile, and very cheap to maintain and keep in service. All the parts that will be necessary to build this table are available at your local hardware store and can easily be made.



Total cost: \$150 (without platters)

### Supplies:

Plexi-glass (or glass) we have chosen to use Plexi-glass since it can be easily repaired is cheaper than glass and is safer in our studio. Plexi-glass is the ideal choice if you decide to teach youth how to animate or you can't afford the cost of replacing glass once it becomes scratched or broken. The size and thickness that you choose is solely up to you but will affect your table size. Using two pieces of plexi-glass laid on top of each other helps in the cost of replacing a layer if it ever becomes damaged beyond repair.

Dry-wall Screws: We used 3 inch, 2 inch, and 1 1/8th inch in the table build.

-(2) shelf braces.

Bolts, Nuts, and Washers: 3-inch bolts are used to fasten your camera's suspension arm to the table. Also an appropriate sized bolt is needed to fasten your camera to the suspension arm.

### Wood:

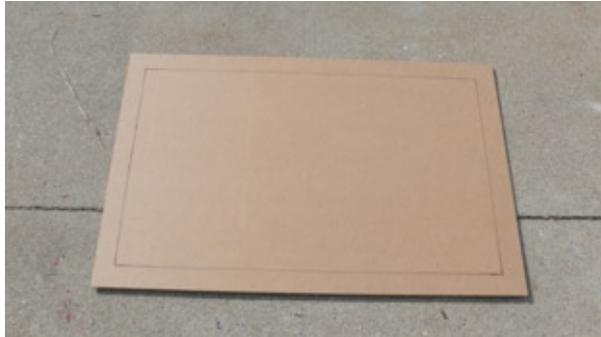
-Sheets of MDF or Plywood (for table top, base, and platters) we use 1/2 inch thick for base and (4) quarter inch thick 2feet x 3feet sheets.

-(6) 1 inch X 2inch - 8 foot pieces of wood.

-(2/3rds x 2/3rds inch - 4 foot strips of wood.

Tools: Power drill and/or Drill Press - Table Saw and/or handsaw - Screwdriver - Measuring tape - T-square ruler - Pencil or marker





Step One: Take your plexi-glass and trace it against a thin piece of MDF (or Plywood) board.



Step Two: Cut out the traced shape.



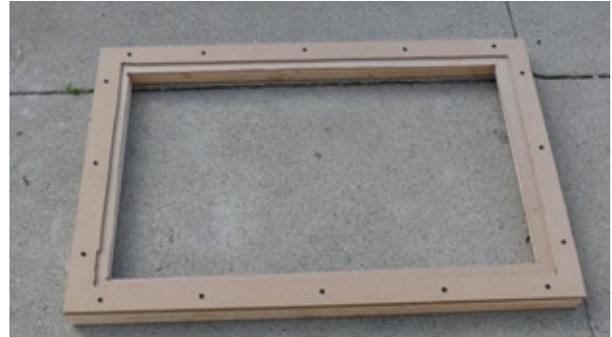
Step Three: Place the cut board over your second piece of thin MDF (or Plywood) board. Then measure and draw a line  $\frac{1}{2}$  inch from the inner edges of the top piece.



Step Four: Cut your second piece of board along the inside of the traced line.



Step Five: Measure and cut your 1x2 pieces of wood to make a frame for your two pieces of board.



Step Six: Screw your boards and wood together to make one solid piece. You may want to clamp your pieces and/or pre-drill holes to insure accuracy.



Step Seven: Cut three pieces of 1x3 to make a frame the length and size of your 1/2 inch thick board.



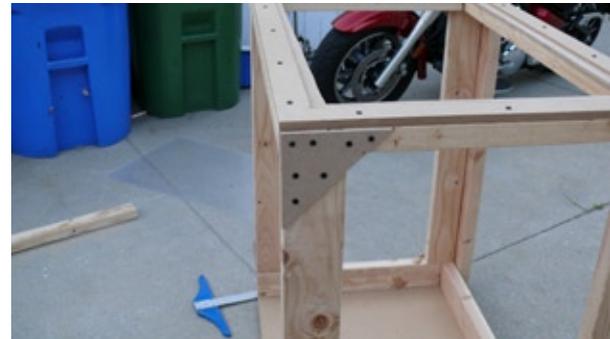
Step Eight: Screw the three pieces of 1x3 to your 1/2 inch board.



Step Nine: Taking perfect squares of MDF or Plywood that measure 6 inches x 6 inches you will cut them into triangles. Make a number of these to act as braces.



Step Ten: Depending on your desired height of your table you will cut four pieces of 1x3. Our pieces are cut into 31 inch lengths.



Step Eleven: Screw your triangles, top, and bottom together to make a box shape out of all you prepped pieces.



Step Twelve: Cut two back braces from 1x3 pieces of wood to 47 inches. Depending on your tables height and width you might want to cut them to fit your tables size. These pieces are used to help brace the center column that hold your camera.



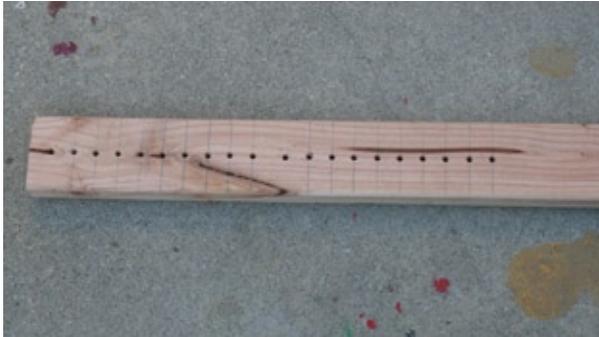
Step Fourteen: Depending on the size of your self braces, cut a piece of wood that will measure no less then three to four inches for each end of the shelf brace. You will need to measure and do this carefully. This piece will hold the shelf brace and suspension arm while being attached to the center column using bolts.



Step Thirteen: Attach the braces in a vertical position at the back of the table parallel to each other. (See Picture for Reference)



Step Fifteen: Holes are then drilled into the piece mentioned in step (14). These holes need to be the size appropriate for you attachment bolts. Then equal distanced marks are made on a pre-cut center column of wood. 18 one inch marks are made to align with the holes drilled in wood that will hold the shelf braces. Make sure this is accurate. Any failure to make precise measurements will spell disaster later on. Our center column measures 75 inches long.



Step Sixteen: Drill all appropriate holes the size of your fastening bolts.



Step Seventeen: Attach your center column to the top and bottom of the tables back using screws.



Step Eighteen: Measure the back of your table and cut a piece of 1x3 to this measurement. Then attach it to the bases and center column (See picture for reference).



Step Nineteen: Cut your 1x1 strips of wood to the depth of the inside of your table. This is a fairly easy step. Just slide the strip into the section where you'd like shelves (platters) then mark and cut.



Step Twenty: Using two pieces of 1x3 we marked lines on the inside pillars of the table for where the Shelf (Platter) braces will go.



Step Twenty One: Pre-drilled all 1x1 pieces and attached them to the table.



Step Twenty Two: Taking a T-square measure out the center of the length and width of the table. Then lay a piece of 1x3 on top that is aligned and touching your center column and mark the center of this piece (Which should be absolute center of your table).



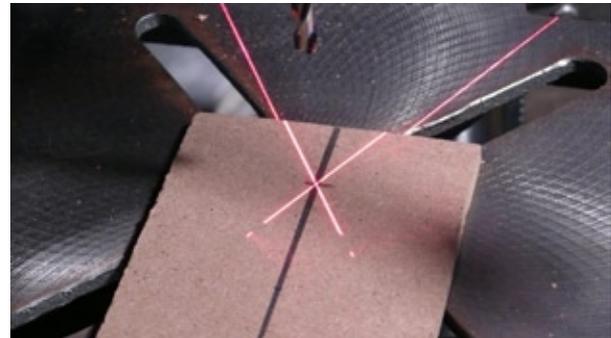
Step Twenty Three: Using the T-Square mark a line across the center of the 1x3.



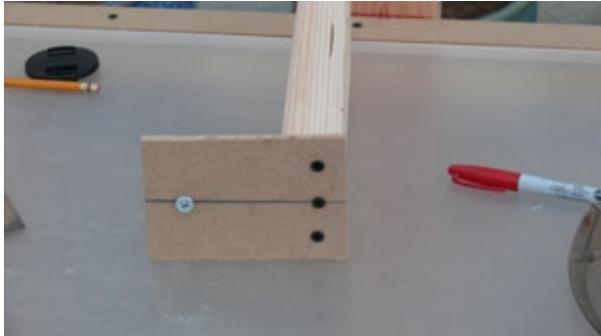
Step Twenty Four: Place your camera face up on the board so that the lens center is perfectly aligned with the center line on the board. Then mark with a line the spot that the base of the camera would be on the board. Now cut this piece of wood.



Step Twenty Five: Measure the center mounting hole of your camera to the edge of the front of the camera's body. (Write this measurement Down!!!)



Step Twenty Six: Cut a 3 inch by 6 inch piece of MDF or Plywood. Now mark the piece of wood using the camera's mounting measurement from the edge of the wood. Drill using the appropriate hole size for your camera bolt.



Step Twenty Seven: Attach board to wood that will serve as your suspension arm.



Step Twenty Eight: Attach braces, suspension arm, and column attachment piece together using screws.



Step Twenty Nine: Now you can attach your suspension arm to the vertical shooter.

## Final Preparation Notes:

So now that you have finished your vertical shooters frame you will need to decide if you want it to have wheels or not. I highly suggest having locking caster wheels attached. This will make the table movable in a small studio environment. If the shooter will live in a permanent location then the wheels are not necessary.

You should paint your shooter a dark flat color. Black is the best color to use and this will greatly reduce or eliminate reflection from surfaces. This should be done to all surfaces before glass is laid into the table.

Plexi-glass will need its protective film peeled away before using. Do not use paper towels or newspaper to clean the plexi-glass. This will scratch the glass and cause undesirable effects. Window cleaner should also be avoided since it can potentially yellow or fog the glass over time. You can use a lint free towel and plexi-glass polish like Novus System One plastic polish. If you scratch the plexi-glass you can use Novus System Two for small scratches and Novus System Three for some deep scratches. Turtle Wax car polish can also be used for reducing micro scratches but will not get rid of them.

Proper care and maintenance should be observed when maintaining the table. You should always cover your table with plastic when it is not in use to help reduce the buildup of dust. Do not leave your plexi-glass pieces in the sun since this will warp the glass.

Now that your table is done you can attach your camera and test out its alignment. Don't worry if your camera is not perfectly aligned. You can adjust this by sanding down an edge on your suspension arm and re-attaching it. Or you can just live with it if it's minor and doesn't affect the work you are doing. Another alternative is to use a shimmy of cardboard behind the camera to help adjust the alignment. These are all low-tech ways of dealing with the problem and each is very effective if done right.

Platter (shelves) will be discussed in the next issue of Stop Motion Magazine along with techniques for using this wonderful table.

Enjoy!

