As far as my work flow for the shots I decided to block each one and get approval on the blocking so there would be less surprises as I started to finesse the animation. Of course I had to fight the urge to just jump right in and focus on the eyeball shot. There were a bunch of individual challenges in each shot from how to have Sam sit down between the ladder, how to execute the eyeball gag, and even how to get Steve on the other side of the ladder to hook up with later shots.

I always reference the storyboards for any shot I'm working on. There was something totally awesome about the poses and shapes that the storyboard artists chose. If I saw something I liked I always tried to work it into the final shot.

DOC12

Nothing too crazy going on here, I needed to animate her turning and walking to the ladder, obviously totally bummed out. Sam was the most difficult character on Cloudy to animate. If you could see her legs while she walked there was a fine line between it looking feminine and like she had spider legs.

I'm not 100% happy with her facial expression at the head of the shot, her face looks very round and bloated, I think I could have done something to make her more appealing.

As far as some animation stuff goes, I had specific things in mind while animating Sam to make her seem sad. I kept her shoulders slumped forward and had her arms swing like pendulums. I wanted

her limbs to feel like they weighed a lot. Thats why she doesn't really pick her feet up as she walks. I wanted to imply a bit of a connection between her and the microphone she just threw into the water. So her eyes stay looking as long as they can as she turns and she gives one last quick look before she plops down.

The plop down works pretty well and I think it has to do with the deliberate hold and lean screen left before she sits. The main challenge I faced was how to get her screen left hand to swing around and under the ladder to match her poses in the following shots. Its a bit of a cheat, but if you're looking there while watching this, I've already failed.

DOC13

This shot was so much fun to work on. I started by looking at the storyboards, I really liked the first drawing in the boards so I had to apply a lot of deformers to get Flint to match the board drawing. Throughout Cloudy we tried to always change the shape of the pupil if it was pressed against the edge of the eye, this was a stylistic choice that Phil and Chris really wanted in the film.

For the actual heels to the eye gag there wasn't a magic button that I just pressed on the rig to make it happen. I thought this might be the case, but as I soon found out it was up to me to figure out how to do it. The storyboard panel for the gag didn't give me many visual cues either so I was kind of on my own. I did remember one thing that Phil said when he launched me on the shot, "If you could have the eyes puff out around her feet like pillows, that would be awesome!" So that became my objective.

Warning Nerd Alert The geometry of Flint's eyes were just simple NURBS spheres. I think they had maybe 6 isoparms that I could use to make the creases. I knew the creases were going to be what would sell the sunken in pillow shape. If I couldn't get the creases to look right it would just look like a lame intersection. So I created a series of blendshapes for both eyeballs pulling as much geometry from the back of the eyeball forward to create the creases.

The initial shape would key on over one frame and then it would move through a couple other shapes that puffed and then relaxed. Underneath all of that though was a lattice over his entire head so that I could get a good squash on the impact. I also placed individual lattices on each eyeball and also a series of clusters for each pillow section that I wiggled slightly as the eyes settled and the camera pans up to Sam.

That's just the technical mumbo jumbo of the eyeballs themselves. I stretched his eye sockets so far that it destroyed the skin around his eyes. I had to create another blendshape target and a series of smooth deformers to make that clean. His mouth was also stretched extremely far, but it just took some smoothing out to make the skin feel nice. You might notice a crease on the inside of his cheek, I'm still not happy with that. I could never track down what was causing it. While looking at the mouth you'll notice another stylistic choice the directors wanted us to follow and thats the shape of the teeth always follows the shape of the lips.

As far as where the hand pose came from, honestly, it came from the fact that I had all this free space on the left side of frame and I needed some other visual element to express pain. I already had him digging his nails into the rung on screen right, but I had his other hand to work with so I put it into the most awkward pose I could fit into that screen space. People dug it and it supports the insanity of the shot so I guess its all good.
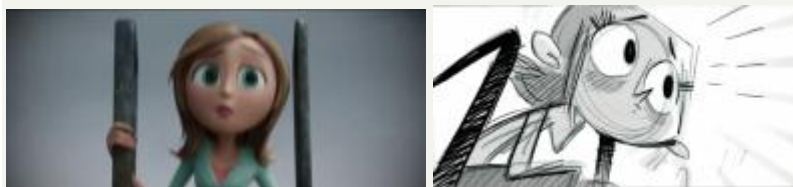
Here you can see another example of the eye treatment. When Sam's eyes are looking straight ahead, they are almost perfect circles.

When she looks down and the pupils hit the edge of her lids I squash them a bit. There was no fancy automated process for this, it was always done by hand. We did this throughout the film as a stylistic choice and it was very subtly successful.

DOC 15

This shot was the one I most dreaded out of the five. I think its because it was less about creativity and more about business. By business I mean that I was driven by having to hit certain marks for shot hookups. But in the end I was able to squeeze in a lot of creative things and try some stuff that I usually wouldn't do.

Also, take a look at this set how awesome is that? The lighting and textures are sick, there's even a hint of bird poop on the tires, or is that **ratbird** poop?

I wanted to continue the pillow eyes and have them deflate in a funny way, but it was just too quick an action. I also had a difficult time exporting all of my deformers from the other scene file. So unfortunately its just lame normal eyes for a few frames.

I was pretty worried about how to get Sam to stand up in a natural/stylish/girly way. I shot some reference, but it didn't really help. I relied on the the idea she would need to pull herself up with her right arm. I posed out about 3 key poses and then muscled my way through the inbetweens. It was such a quick action that it worked itself out rather nicely.

Again I had to be careful with Sam and her spider legs. (I love the sound effects they added with her footsteps on the wooden boards.) I also remember I was tight on time with this shot, I think I spent a good chunk of my bid days on the eyeball shot. I knew doing all of Sam's lipsync was going to take a long time…so I searched deep and realized that as an acting choice she might cover her mouth as she steps backwards. HAHA! No one ever questioned that bit of rock solid logic.

There was one part of this shot that got a lot of attention during dailies and that was Sam's final pose. Some people felt it was too sexy and others liked it just fine. Personally I thought it was awesome. I liked the pose in the board panel, but I'm also a fan of Shane Glines and Bill Pressing's pinups. To get this I had to rotate her hips way back and create a nice arc in her back. I'm glad it got to stay and I love the locked straight screen left leg next to the slightly bent screen right.

DOC 16
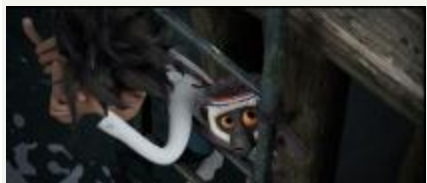
It was nice when I started on Doc 16 because I could finally just do some simple motion and acting. There are some things to look closely at in here though. Notice the eye treatment on Steve, all of his concept art has his pupils as two different sizes and shapes. Also, Flint's arms have a bit of a "noodle" treatment to them, we always put a tiny bit of bend into his arms it looked terrible if his elbows were sharp corners.

Also, if you like these board panels as much as I do they were done by Kris Pearn.

My first take on this shot was to have Flint rubbing his eye and then turn to reveal a terribly disgusting swollen mess. So I turned to my fellow bearded animator Jeremy Collins and asked him, "How would you draw a gross swollen eye, all Ren & Stimpy style?" He replied with this:

This was perfect, so I created a super gross blendshape for his eye and blocked out the shot with it all nasty when he removed his hand. The reaction in dailies was mixed. Most thought it was hilarious, but sadly it was just too gross.

DOC 17

This shot was my first character "acting" shot on the film. In the end I'm happy with it, but I feel like her thought process gets lost towards the end. Too many poses or something, I felt a little over directed while working on the last half of the shot.

The first hurdle was to convince people it was worth the money to have her tuck her hair back. I thought it was a great unconscious thing for her to do since she was nervous and angry. They ended up going for it and it looks awesome.

The boards had some nice poses and eye direction in them so I referenced them as I animated. There are some good examples of the pupil treatment going on in this shot.

Sam wears a bracelet and necklace throughout the film. You can see the bracelet pretty well here, again no fancy magic button. It had to always be animated by hand.

And thats that.

I hope you enjoyed this post, if you have any questions or thoughts, please leave a comment and I'll be sure to reply. I'll post my complete reel from the movie soon and maybe do another post talking about a few of my other shots.

-Dave

'll start off with the slow motion Flint shot, **rui37**.

Once I nailed down the placement of the bg characters and roughed in the basic timing of Flint it became all about the motion of the wave through his body.

I started by moving his root to his chest so as I rotated his chest everything below would rotate with it. With the chest I animated what I felt would be the correct speed, because the shot starts and ends in realtime, but the middle is slow motion. Once I was happy with the relative speed of that movement I started to work my way down his body…this is starting to sound like a sleazy romance novel. Everything was pretty straight forward as you'd expect counter animating the follow through, but once I was finished offsetting everything down the chain to his feet it still wasn't crazy enough.

Flint had what we called "noodle" controls on his arms and legs. There was an attribute on his knee that controlled how much noodle-y-ness that leg had and then there were two controls, one for his thigh and one for his shin. These you actually translated in space and would pull or push the geometry of that specific section to move the bendy shapes further.

So I ended up animating these controllers throughout the shot to push the curves further. You can see it in the frame to the right how completely broken his legs are to push the wave motion through his entire body.

This shot also contains a good example of the pupil treatment we used on Cloudy. In the sequential images below you can see how his pupil is almost perfectly round and slightly begins to squash as it presses again the edge of his eye. This is everywhere in the movie and I can't imagine doing a "cartoony" animated film without this.
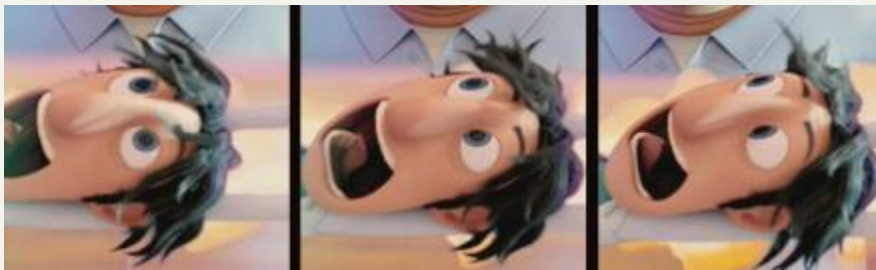
I didn't just squash his pupil though, I also subtly changed the shape of his whole eye socket to help show where he was looking.

For the animation on Flint's face I animated a group of cheek puff controls in conjunction with some blendshapes I made to get the skydiver cheek ripple effect. Its a little hard to see the detail, but its there. For his tongue I created a series of flapping poses and randomly copied them throughout and then cleaned them up to get some nice overlap.

As flint leaves the screen I knew he would become a blurred mess so I stretched his legs like mad to help sell that the FLDSMFR was pulling him.

On Cloudy if you were assigned a shot with background characters you were responsible for animating them. So in the background I had to make sure everyone was doing something interesting. Unfortunately I got in a bit of trouble because I thought it would be funny to make one of them mouth(in slow motion) "What The F#*K". Haha right? The producer didn't think it was funny.


MEE19

I want to point out some very specific things in mee19. This is the first time in the film that we see Earl. Because of this I had to establish how his character moved and what his role was in relationship to Flint.

Immediately I had to show a dominant/submissive relationship. This isn't really rocket science, but I had to choose how to show that visually. I decided that Earl needs to take up as much of the frame as possible. He also needs to force Flint into as small a space as possible.
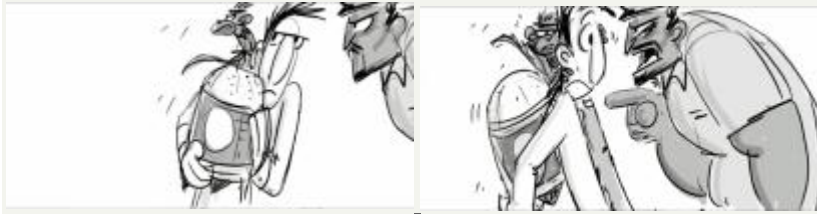
Mentally Flint is dealing with a lot in this shot. He's surprised, he needs to hide what he's doing, he needs to lie, he needs to appeal to Earl's sensibilities, and he's afraid of what Earl might do. I'm not saying this is the most incredible bit of acting ever in an animated film, just that that's a lot to think about while animating.

We always described Earl's neck as a piston. It would fire in and out accenting his dialogue. Earl's movements were always quick and precise: no anticipation and an abrupt start to the motion, followed by a long feathered settle.

To keep the character alive during long holds we would put in a quick and small adjust. In this shot as Earl holds his pose I have small adjusts during the long hold where he inches closer to Flint.
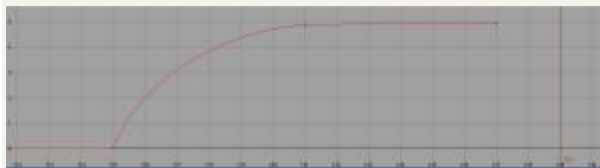
 Many times the curves for these quick moves would look like the image to the left.

No anticipation and a very quick change into the next pose with an incredibly long settle. No over shoots, get about 90% of the way to the next pose and then just settle the last 10% over about 10 frames. Of course this would be different for different moves, but this is a good example of how the majority of the quick adjusts were animated.

Sometimes the motion blur would give away the quick movement with its preframe blur. To get around this and to create a more pleasing feel to the "snappy" move I might add a few frames of ease into the start of the move like the curve in the second image.

Cutaway Mouths

If you look closely at mee19 you'll notice that anytime the character is profile to the camera you can see through their open mouth to the building in the background. This was another style choice that the directors wanted throughout the film. At times it was difficult to achieve, but there are many shots in Cloudy where this is implemented. The idea was to achieve an extremely clean silhouette while treating the mouth as a two dimensional element. If you could see the other side of Flint's face its terrifying, the skin is pulled back almost to his ear wrecking all the geometry on that side of his face. In the end it didn't matter as long as you could see clearly through his mouth.

Facial Detail Examples

There were some very subtle things we did to make the characters more appealing in Cloudy. First of all, asymmetry. This is no secret and without it any character is as appealing as a parking ticket.

We were able to manipulate the character's head shapes on Cloudy with ease. So the first thing I'd do is throw the default head shape off by moving the top of the head in one direction, or stretching one side of the face. The size and shape of each eye was very important to support the shape of the head and help show where the character was looking.

I had to hide the change in Flint's head shape within his head turn. During his head turn his nose changes its direction, and the kidney bean shape of his head is pushed in the opposite direction, also the shape of his eyes change.

(animated .gif)

Sam was much more delicate when it came to breaking up her asymmetry.

Also good examples of the pupil treatment in both of these shots.

Sam's Glasses Treatment

With Sam's glasses the trick was to never intersect her eye with the frame of the glasses. If the glasses intersected her eye as she turned her head it really accentuated the fact that the front of her face was pretty flat and its much more appealing to have a clear view of the character's most prominent eye. To keep this from happening we would animate the glasses to turn against her head, there are some much better examples of this in the jello sequence.

GUMMY BEARS!
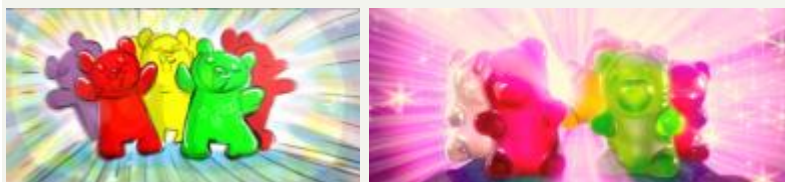
We screened a rough cut of Cloudy in December 2008, mostly storyboards with about 20% final animation. But when we got to the part of the movie when Steve finally realizes his purpose I knew what shots I had to animate. This was the first time I even contemplated requesting shots. I've been

pretty lucky letting fate do my shot assignments, but I knew when I saw these I had to animate them. I didn't care so much for the fighting with Gummy Bear shots, the shot I really wanted was Steve realizing whats happening.

I approached the animation director, Pete Nash, and he said he would certainly see what he could do. A few days later I found out I was going to get to animate bly32, Steve seeing the Gummy Bears and as a bonus I get to animate the tripped out happy Gummy Bear shot as well!

BLY32

For this shot Phil and Chris explicitly asked if I could animate Steve as a 2D card moving upward. They didn't want any fancy animationy stuff, just Steve poking his head up moving at a constant speed.
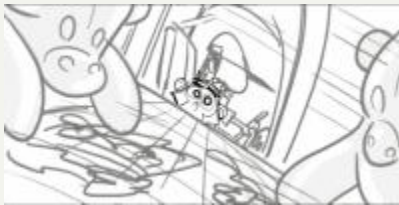
So thats what they got, the only other trick was having to get his voice translator lights to clear the top of the door so you can see them light up as he says Gummy Bears.

I referenced the storyboard drawing for this frame extensively. I pushed Steve's facial rig as far as it would go with the built in controls, but it only got me about 60% of the way there. I created several custom blendshapes and groups of clusters to help push his mouth into that final shape. I had to reconstruct some of the geometry around his eyes as well because scaling his eyes so large started to break the surrounding geometry. I threw a slight wiggle on his mouth as if he couldn't contain himself, but then I just let the pose and Steve's insane expression sell the rest of the shot. I figured this was a moment for Steve and the audience to all realize together whats about to happen.

Remote Control Television

Before I wrap this up there's one more thing, Flint's failed invention the Remote Control Televsion is everywhere throughout Cloudy. Sometimes its more obvious than others, but anytime we could fit him into a shot the director's loved it. I only have 2 examples of it from my reel, but here they are.

 (he's living in a cardboard box!)

I hope you enjoyed this post and please leave a comment if you have any questions and I'll be sure to reply. Also if you have any questions about my other reel shots ask away and I'll reply, maybe even with some fancy pictures!

-Dave