



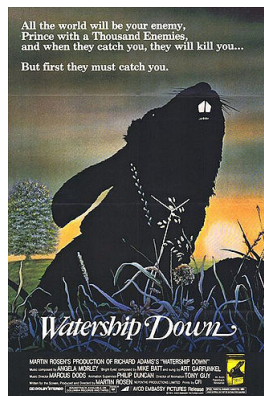
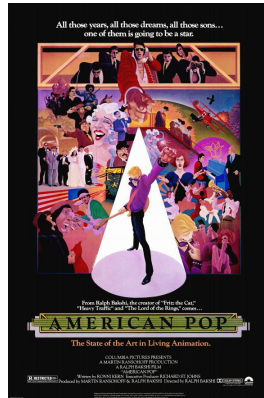
MEET WEBSTER COLCORD, THE ANIMATOR AND MOTION CAPTURE ARTIST WHO RELIED ON A BATTLE-SCARRED BOXX WORKSTATION TO BRING *TED* TO LIFE. *By John Vondrak*

THE ANIMATOR

A native of Eugene, Oregon, animator Webster Colcord went to work for Vinton Studios right out of high school, cutting his teeth on projects like the Emmy Award-winning *A Claymation Christmas Celebration* and Michael Jackson's *Moonwalker*. This was followed by years of freelance and studio work that includes countless commercials and Hollywood productions like *James and the Giant Peach*, *Antz*, and *X-Men: Days of Future Past*. Most recently, Webster has earned raves for his outstanding motion capture work on Seth MacFarlane's *Ted* films. Currently animation supervisor at [Atomic Fiction](#) (*Star Trek: Into Darkness*, *Flight*, *Cosmos*) in Oakland, CA, Webster generously agreed to share his time by taking a few questions.



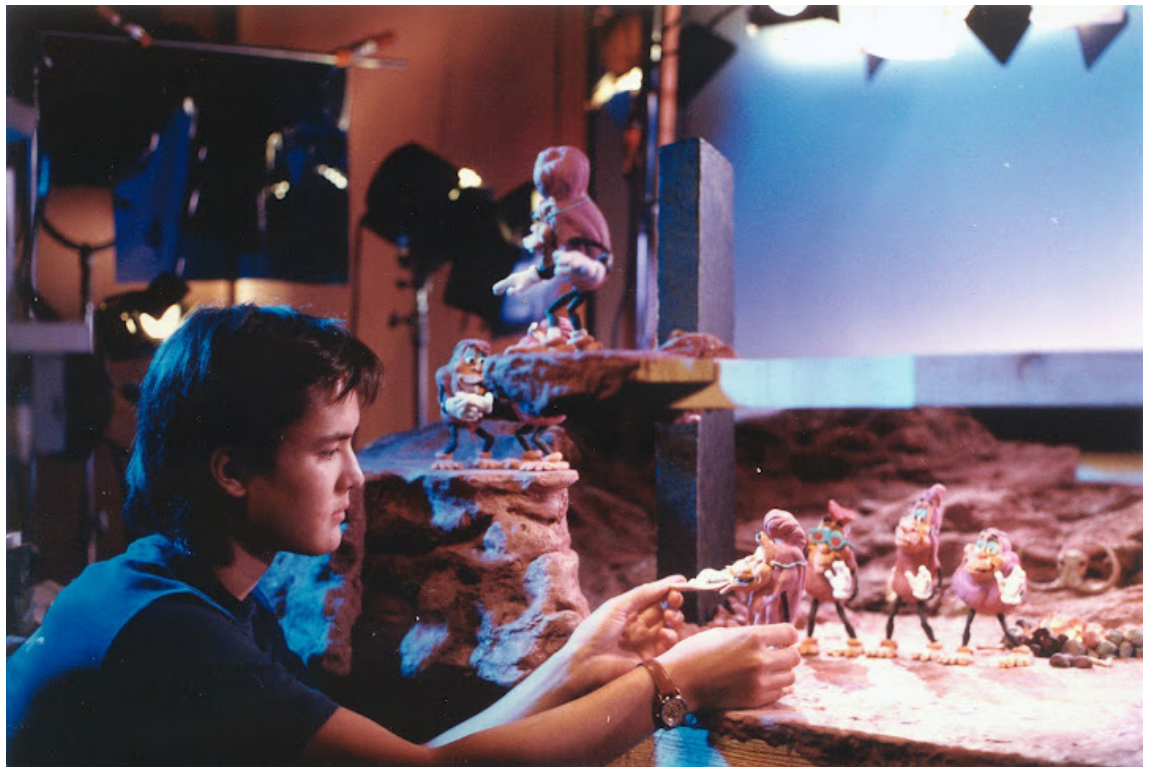
Growing up in Eugene watching King Kong, The Seventh Voyage of Sinbad, Bakshi's Lord of the Rings (did you watch American Pop as well?) did you have any aspiration to become a filmmaker, or was it always the quality and creativity of the animation itself which inspired you? As a side note, did you ever see Watership Down? Like Bakshi's rotoscope stuff, the overall look of that animation really blew me away as a kid. A few years back, I found the DVD for my own kids and it scared the hell out of them at first, but they love it now.



I have seen American Pop, but not as a kid. That one wasn't in theaters very long, as I recall. Watership Down scared the hell out of me as well! I wanted to be a cartoonist, comic book artist, and at one time, a make-up FX artist. I think it was more the desire to make monsters than to be a total filmmaker, but as I got older, I started understanding the visual storytelling techniques of film and I wanted to try my hand in it.

You were fresh out of high school when you created the "audition" sculptures for Vinton Studios. Had you been creating sculptures throughout childhood and had you ever attempted to shoot any stop motion with them?

In my teens, I shot a lot of experiments both on film and video. For animation, you really had to use film back in those days. The single-frame recording capabilities of videotape were never very good, so I started with Regular 8mm, then Super 8mm, then 16mm. I tried all kinds of techniques in those early experiments; double-exposure, split-screen with live action, space shots, a little bit of rear projection, replacement animation, foreground miniatures, glass shots... none of it was very good. But yes, a lot of sculptures and little animation puppets –and a lot of pyrotechnics!





Yours is an impressive resume. Was the transition from clay to digital animation difficult, or did it seem like more of a natural progression for you?

It was difficult! I did have some prior experience getting slightly familiar with digital animation. My buddies at Hash Animation in Vancouver, Washington had given me a copy of their software (Animation Master) to learn on, and I had fooled around a little. At the time I made the transition in 1997, I had my own small animation studio in Portland, Oregon and I was producing and directing commercials and interstitials. I had worked on a couple of feature projects, but it was quite a shock to suddenly be neck-deep in a big initial CG feature within a large-ish studio. That was *Antz*, at PDI (newly a part of DreamWorks at the time) and there were all manner of difficulties.

What I discovered was that Hash Animation Master was sort of advanced! At the time, most of our animation at PDI had to be done using a spreadsheet. There wasn't really a graphical manipulator, or poser, until later on. We were

using the new SGI 02 machines, which were new and hot at the time, and I was learning Unix. It was really diving into the deep end of the pool!

For about a year, I struggled and then suddenly had an epiphany. It was that even though it was dimensional animation, I was hurting myself animating sorta' straight-ahead like you would do in stop-motion. The former cel animators seemed to make the transition easier, and that was because they were working pose-to-pose and locking those key poses down across the animation controls. I was also learning that in CG, your brain is pretty much the only muscle you're using, and you have to be very disciplined in organizing your work to be edited and iterated on later. Before that, I had worked fairly intuitively and loosely in stop-motion, where you actually get to use your body in your work. The whole exercise of learning CG made me more disciplined in stop-motion as well—more cerebral.

In addition, starting in a very structured studio where everyone was a specialist in their specific departments, where animators only do animation, was sort of coming into CG backwards from how artists learn CG today. Instead of learning CG from the ground up, I learned from a specific discipline and have been working backwards over the years to become a generalist. That has been a really interesting learning process, and I'm still just a remedial modeler!

You mentioned to CGSociety that after owning your own shop you were tired of working alone in your studio and that you wanted to learn new things and be part of a bigger team. Please explain that need or desire as I think some creators, in regard to the bigger team aspect, might want to go in the opposite direction.

Well, it's a tricky thing. If you tend to be your harshest critic, which many artists are, then you start to become paranoid about being in a vacuum and you doubt the accuracy of your own judgment. And by-and-large, it's easier to learn from others around you than from written documentation—more so because an animator sitting next to you has searched out the exact same problem you're encountering and has already done the legwork to find that (usually undocumented) work-around.

Of course, you also want to be locked away in seclusion and work on your "masterpiece." Animators tend to take it to the extreme though and spend months and years in seclusion, working on their films. You just get tired of being alone, I think. You want the "esprit de corps" of working in a group. Then after working in the group, you want to be alone. It's a pendulum.

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- Webster Colcord

Your work on the Ted films is incredibly lifelike and seamless. You already gave a great description of the motion capture process to CGSociety, so I'll not ask you to rehash that. If you could though, please add any additional information, especially regarding the challenges your workflow presents.

It's really a standard workflow. We capture the motion, do a little processing, sync up the takes and send them to the VFX houses that use animation layers to enhance the acting. They also keyframe the lip sync and a lot of other stuff. For our post-vis, we use a slightly older method, where we use a multi-skeleton rig that blends the mocap and keyframe.

The only thing we're doing different is we're being very mobile about the capture set-up, doing it on location when possible, and the actor in the suit is also the director. That makes a huge difference and it's an unusual situation. Seth (MacFarlane) is very specific about what he wants and is using the tech to ensure the performance comes out how he envisioned.

Some of the locations were extremely challenging and rough on the gear. We had some bad weather in Boston and cramped conditions, shooting in tight spaces—tiny bars, the diner, Tom Brady's bedroom. We had the dedicated [BOXX](#) that runs the mocap system in a protective case, but it can only shield so much from heat, dust, dampness, and bumps. And every day, it was on-and-off the truck. For those tight shooting spaces, we would have to take it out of the protective cart and set it up free-standing on the floor of a location.



Were there greater advances in technology (coupled with your own experience) that made the second film any easier?

Well, our VFX supervisor, Blair Clark, was adamant that we not do anything “too different” that would result in a change in the character, so we took incremental steps. We improved the look of the real-time hardware rendered Ted (which is what the crew sees on-set) and the post-vis Ted model, and we re-designed the way we use the suit so that application time was cut way down. Every second counts on a live action set, after all.

In the middle of our *Ted 2* production schedule, however, Xsens, the makers of our mocap suit, released a radically better version of their system which uses much smaller sensors with great improvements in their software. So we used that suit for a big musical number featuring Ted and a huge cast of dancers. For that one sequence, four different dancers wore the new Xsens suit, each of them playing Ted in different sections of the sequence. That was really challenging, fun, and a real test of Xsens’ new system. It worked really well.

How did you become aware of BOXX?

I was first on a BOXX system at The Orphanage in San Francisco, starting with the Korean monster movie, *The Host*, as animation supervisor. I was there for a number of years on a bunch of feature projects and commercials.

Prior to the production’s BOXX system, what type of workstations were you using?

I think I was on a Dell, and previously an HP machine at PDI/Dreamworks, after the SGI O2’s.

Describe the experience of working on the BOXX system. How does it differ from other systems you’ve used?

Always very reliable and never any hardware problems that I recall. I do recall having a power supply in a machine, it wasn’t a BOXX, go out at The Orphanage. It was kind of scary, a big “zap” and a burning electrical smell.



What workflow problems have the BOXX systems solved? In other words, what has it meant for you in terms of time saved, deadlines met, etc.

The BOXX unit that we purchased in 2011 on Ted has been in and out of my professional life for four years now. Because Seth MacFarlane's team produced the new Cosmos, I ended up working on the same machine doing pre-vis for the series. And when Seth was doing a promotional commercial that was a tie-in between his film *A Million Ways to Die in the West* and *Ted*, we did a couple of mocap sessions for that. During production on that commercial, the system was being unloaded from a truck (I wasn't there) and was dropped off the back and onto the sidewalk. The monitors shattered, but the BOXX made it through just fine, with one little scar from the event. We've never had it serviced and it has been working in all sorts of terrible locations since 2011. I'm just amazed by its durability!

Discuss the future of your work and if you see BOXX as being part of that future.

The tools for CG have evolved and gotten more user-friendly, for sure, but the learning curve is steeper. The advances mean that there's just more to know. You have layered innovations upon innovations. Overall, entry-level CG is more accessible. But for the big, challenging stuff, be it feature films or 360/real-time/VR, the complexity just keeps getting raised. It's no longer "live action background with CG creature." Rather, it's "photo-real city with dynamic camera and digital double constrained to moving vehicle driving XYZ different simulation packages."

And sadly, the majority of consumer-level machines have been dumbed-down for the masses, made so that the UI is pretty, but inside it's gutless. Or rather, the tools aren't there to produce. They are media consumption devices. In other words, many machines to view beautiful images, but very few that can create them at a high level. It's a weird time!

CGSociety referred to you as "a true master of the art of mocap." That sounds accurate, but for business card purposes, I'd suggest "Mocap Master." Do you feel like you have this process mastered or, in your mind, is there always more to do and learn?

I am definitely NOT a "mocap master." I have been on the user end of mocap for a long time and of course I have a lot of experience specific to the *Ted* films and the Xsens/MVN system, so there's that. If you were to put a pile of optical mocap cameras in front of me and ask me to set-up a volume I would be helpless. I'm an animator benefiting from innovations in hardware and software that make mocap more accessible.

Editor's note: Since this interview, Webster has purchased his own BOXX APEXX 2 3402 workstation featuring an overclocked, eight-core Intel® Core™ i7.

[Click here](#) to learn more about APEXX 2,
or visit: <http://www.boxxtech.com/products/apexx-2>

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