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Bigfoot goes Digital

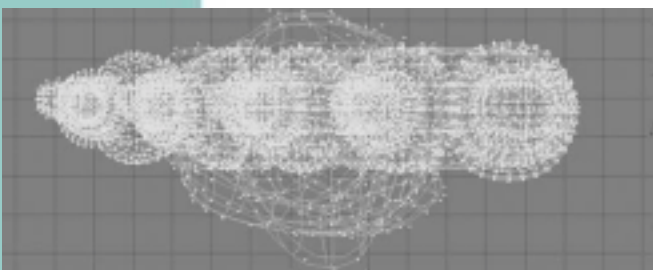
Many of us have seen the remarkable bigfoot documentaries produced by Doug Hajicek (Whitewolf Entertainment Inc.). The following entry and illustrations provides the inside story on Doug's objective and accomplishments.

High tech equipment and computers are everywhere, even bigfoot creatures have not escaped the electronic trend - they have now gone completely digital. Since no bigfoot body is available for scientists

to examine, why not examine a digital one? At least, that was the idea of Doug Hajicek, a filmmaker from Minneapolis, Minnesota. Hajicek was on a standard filming mission in the Northwest Territories, Canada when he and other members of his crew saw enormous man-like footprints going in a straight line over the tundra - they even went

over 6-foot (1.8m) tall stunted spruce trees. This experience kindled Hajicek's interest in bigfoot and he has since produced over 7 hours of national television shows on the creature. His first production, *Sasquatch: Legend Meets Science* (which many people say is the gold-standard of all bigfoot documentaries) was created for the Discovery Channel. Following this production, he commenced a 13-week series, *Mysterious Encounters*, for the Outdoor Life Network (OLN). Hajicek uses both digital technology and forensics to try and solve the ongoing bigfoot mystery. As executive producer for Whitewolf Entertainment Inc., Hajicek has access to many computers and high tech "toys," and also the people needed to operate such equipment.

One of the people is Reuben Steindorf, a forensic animator with Vision Realm. Steindorf was the expert Hajicek chose back in 2001 to work on a long term project to completely animate in full 3D the creature in the Patterson/Gimlin film.



Thousands of data points were used to create the minute details in the toes and feet. This assures as much accuracy as possible.



Reuben Steindorf of Vision Realm works on the feet of the Patterson creature, turning plaster into digital media.



Starting with the feet and lower torso, the animated Patterson-Gimlin creature starts to take shape.



Doug Hajicek (right) and cameraman Mario Benassi prepare to film one of the most high tech forensic reconstructions ever.

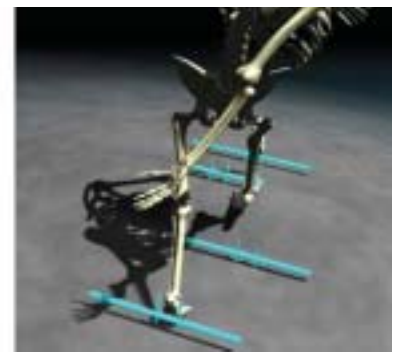
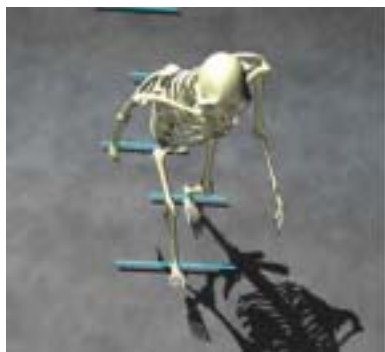


Derek Prior, a 3 time All-American sprinter prepares to race a bigfoot near the shores of Lake Chopaka in WA.

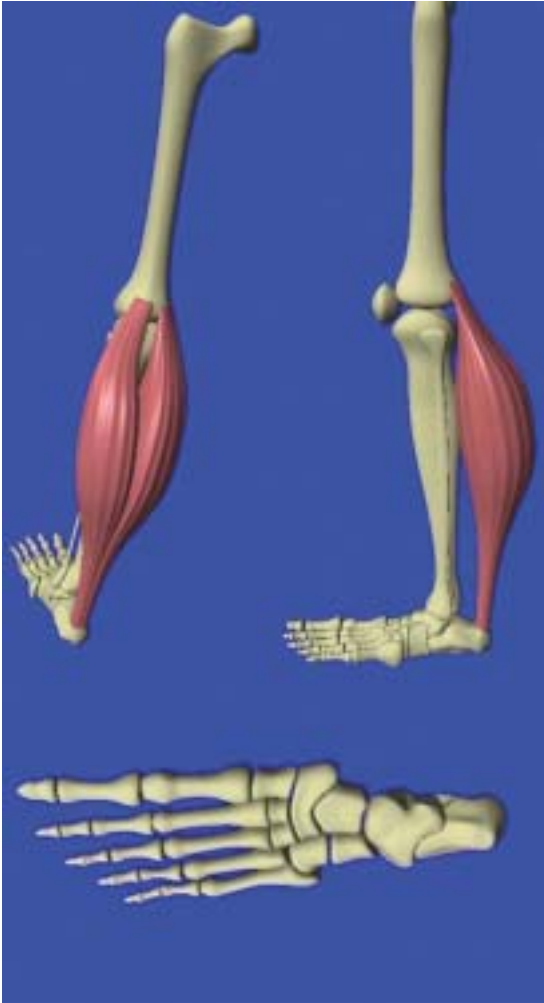


Digital motion tests are conducted as the Patterson-Gimlin creature learns to walk. The strange gait is now apparent for the first time in over 37 years.

The digital Patterson creature is literally walking on a virtual exercise wheel so scientists can study the very non-human gait and stride efficiencies.



There appear to be 6 distinct features of the Patterson creature's gait: hip rotation, high leg lift, ankle rotation, non-locking knees, long strides and the legs swing in and out in a criss-cross fashion.



Eventually all of the functioning muscle layers will be affixed onto the bones.

Hajicek knew if Steindorf could effect what he wanted, scientists could study the strange yet graceful criss-cross, hip-rotating, bent-kneed and ankle twisting gait of the creature from any angle they chose. For example, a viewpoint of the Patterson/Gimlin creature walking directly in front of you reveals things that would be otherwise hard to discern in a flat two-dimensional view. With Hajicek's and Steindorf's digital 3D Bluff Creek film site and a 3D creature now complete, any perspective can be custom rendered to fit the study needs of biomechanical experts or scientists.

The 3-year long project has yielded surprisingly accurate results for the study of creature details, right down to its toes. In this connection, Steindorf used actual footprint casts made by Patterson to model extremely accurate feet. Steindorf started with the individual bones and cartilage then worked his way up to muscles, fat, skin - and now even digital hair. Inverse kinematics were used along with motion tracking, locking onto fixed objects in the film, to accurately recreate the creature's movements. Further, Patterson and Gimlin themselves plus their horses were digitally reconstructed.

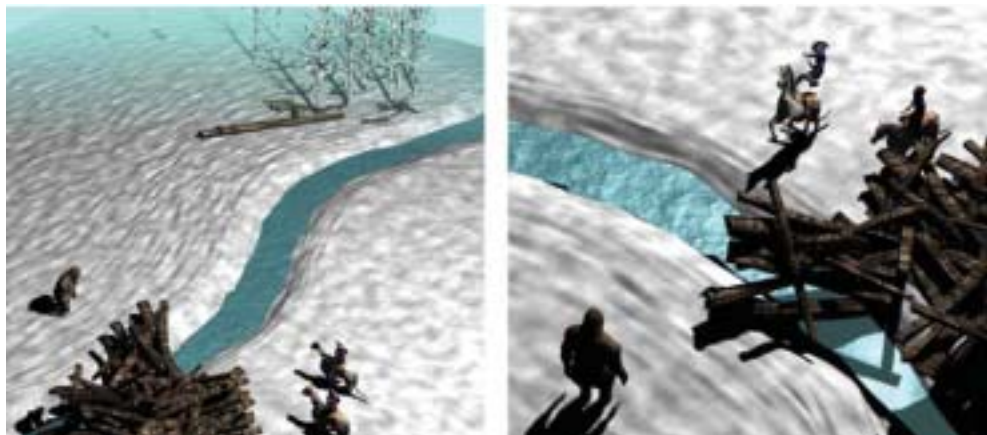
When the digitized creature was seen walking from another angle, it was obvious that it's legs were operating in a graceful coordinated "swimming type" motion. Hajicek has since coined the term, "The Mountain Gait," to describe this motion.

Moreover, by using forensic technology, a hairless Patterson/Gimlin creature was created that visibly made sense in the physical world to both Steindorf and Hajicek. "It was a bit of a shock to see how human the alleged creature looked without the facial hair," said Hajicek. He also points out that subtle aboriginal features appeared, such as high cheek bones, as the face was carefully reconstructed using a variety of methods.

Digital Film Forensics

The digital Bluff Creek, CA film site can now be viewed from any angle with live action. Steindorf and Hajicek will continue to dial in the animation, adding detail elements.

(Scenes shown here are samples only.)



Hajicek has spent the last 4 years applying technology to the bigfoot mystery in hopes of providing a better understanding of the creature. He knows that his digital work adds only small pieces to a big, unsolved puzzle, "Technology will never replace field studies but it does greatly enhance such studies. Being out in the woods armed with a digital thermal camera is a great feeling, you know nothing can hide from you," he said.

The list of new digital technology processes Hajicek has applied to bigfoot research is extensive, ranging from night vision TV transmissions using a remote controlled helium blimp to digital IR camera traps and most everything in-between. "This tech stuff works great," Hajicek remarked, "but you still need months in the bush to see the real benefits."



Blow up of frame 352

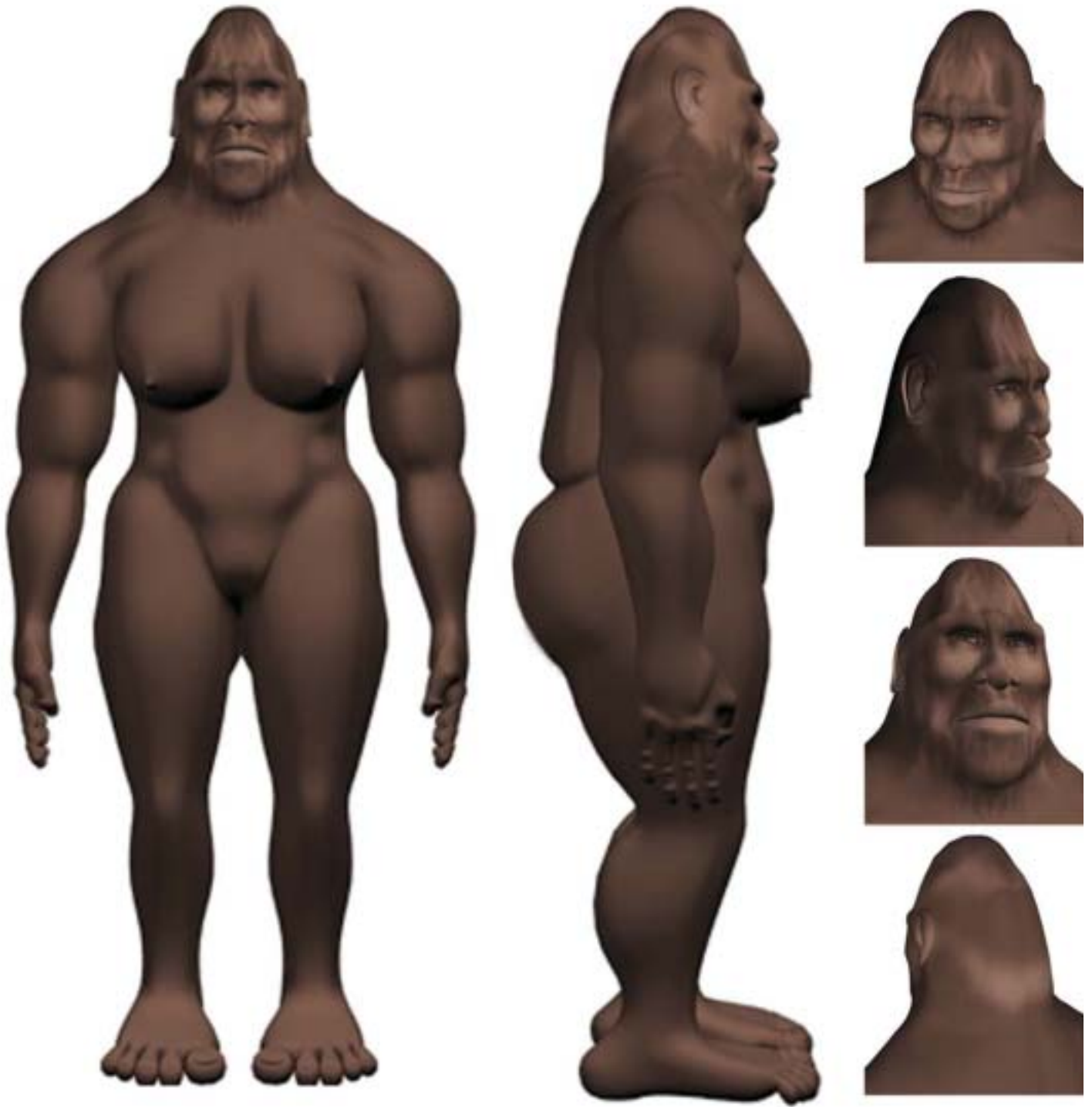
Sketch over

Full digital face

Digital face merge

Final digital face





Multiple angle view of a digital bigfoot without hair.