## Height Haggling

Some of you may have wondered about all of the controversy on the estimated walking height of the sasquatch in the Patterson/Gimlin film. Why is the height important in the first place? Why is there such a discrepancy in the estimates (the walking height ranges from 6 feet to 7 feet, 3.5 inches)? Why don't skeptics believe height estimates?

The first thing we need to do on this issue is clarify the term "walking height." This is the height of a person (or sasquatch) when he or she is in motion. The actual height is called the standing height-when one is standing perfectly erect with his or her back to a wall (or the edge of a door, as parents often use to mark the height of their kids). Dr. Grover Krantz placed the difference in humans between these two heights at up to $8-8.5 \%$. That is actually quite a bit. If your walking height is say 70 inches ( 5 feet, 10 inches), then your standing height could be up to 76 inches ( 6 feet 4 inches). You would have what is loosely termed a 6 -inch slouch, which is the result of bent knees, bent back, and bent head/neck. Of course, this all depends on how straight one walks in the first place, but generally speaking, both heights are significantly different in humans. Now, keep in mind that the Patterson/Gimlin film shows only the subject's walking height, so something must be added to arrive at its standing (actual) height.

Why is height important? The taller the subject, the less likelihood it is a human being in some sort of costume. If, for example, the subject were proven beyond a doubt to be 8 feet tall, then a human being could be reasonably ruled out (notwithstanding use of stilts).

Why do height estimates vary? There are three conditions that cause this:

1. Different film frames are used as the basis for the calculation. The subject does not maintain a constant walking height-it bobs around. In other words, it is more bent over is some frames than in others.
2. There are "unknowns" associated with all of the frames. They are: camera distance, ground level and film fuzz (we can't see the exact beginning and end of the images).

Why don't skeptics believe the height estimates? All of the height estimates, save that calculated by Jeff Glickman (NASI) depend on an additional unknown to those I have mentioned-the subject's foot size. There is absolutely no way we can prove beyond a doubt that its foot was 14.5 inches long. In other words, we cannot prove that the foot

casts we have (hard evidence source of the figure) were from impressions made by the subject; nor can we prove that photographs of the footprints actually show its footprints. So any use of the 14.5 -inch figure is automatically suspect. John Green got around this dilemma to a degree by photographing a tall person in the subject's path and using this to confirm his calculation based on the foot size. The only problem here is that we do not know beyond a doubt that the camera distance John used (102 feet) is correct. Essentially we are back to square one. In other words, calculation made using the foot size and/or camera distance are not scientifically valid. Throw in the other unknowns I mention (ground level and film fuzz), and it is enough to make scientists "leave the room."

Jeff Glickman saw this problem right up front. He knew that if he used anything with a serious unknown, then he peers would ride roughshod over him. What Glickman did was, in my opinion, ingenious. He registered a film frame with a photograph of the same scene that had a measurable object (a person) in it. Both the film frame and the photograph showed a dead tree. By lining up this tree (making both images the same size), the subject in the film frame could be compared with the measurable object (person) in the photograph, and a height calculated. His only problem was film fuzz. However, he took the images right down to pixels, so probably got very close. As a result, Glickman's calculation of the subject's height at 87.5 inches ( 7 feet, 3.5 inches) is the only calculation that can "stand on its own two feet" (pun if you wish). The image seen here is Glickman's comparison of the sasquatch with a person 73.75 inches ( 6 feet 1.75 inches) tall.

Now, we have to address the walking height/standing height issue. If we go by what Dr. Krantz stated, then we need to add $8-8.5 \%$ to Glickman's figure to get the subject's standing height. If we use $8 \%$ to be on the safe side, then we arrive at 94.5 inches ( 7 feet 10.5 inches).

Whatever one decides on all of this, I think it can be reasonably stated that the subject, as it appears in the Patterson/Gimlin film, was at least 84 inches ( 7 feet tall). Incidentally, if we average Green's calculation of 80 inches and Glickman's 87.5 inches, we get 83.75 inches. Although totally unscientific, this figure sort of ties in the foot size, a man in the subject's path, and Glickman's photo registration (a bit like Irish stew).

The scene in the film whereupon the subject turns and looks at the camera has become iconic. There can be very little doubt that the sasquatch (or whatever one wishes) was about or slightly over 7 feet tall, and
would be taller if it stood perfectly erect. To have been a man in a costume, then that man had to be at least 7 feet, 6 inches tall. The costume itself would be designed to add another 6 inches (i.e., have a very large head). This is, of course, possible, but to create a costume in 1967 that shows absolutely no hoax indicators and to have the wearer walk in a perfectly natural way is bordering on the impossible.

We have had 50 years to study the film and research its circumstances, but nothing tangible proving the film was fabricated has come to light. On top of that, we can't even duplicate the "sasquatch" seen in the film. It has been said that such attempts are "pitiful."

For certain, the subject's height is a major factor in considering a hoax or a natural being. The height can be established with a high degree of certainly and that should satisfy skeptics and scientists without argument.


