

# THE MUNNS REPORT

Release Number 3.3.1  
A True 20th Century Mystery

Overview on the complete failure  
to debunk the film or prove it is a hoax.

This Report reflects an ongoing  
analysis by Bill Munns  
of the 1967  
Patterson-Gimlin Film.

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## The Patterson-Gimlin Film

### Release 3.3.1 - A True 20th Century Mystery

An essay on the complete failure to debunk the film or prove it is a hoax.

Life is filled with intriguing real mysteries, events we simply cannot explain. Sadly, as well, life is filled with acts of deception pretending to be mysteries. Whether hoaxes, frauds, misrepresented claims, or practical jokes, all try (in their own way) to make us believe something which simply is not so. Sorting out which is which should not be a difficult task, if you have enough evidence or data on the event, if you have some knowledge of the hoaxing process (the way illusions and frauds are designed), and if you have enough thoughtful consideration (ideally by several or many people thinking through the problem)

The Patterson-Gimlin Film (called the PGF, also know as "the Bigfoot film") is truly one of the great mysteries of modern times, and deserves rightful consideration for the mystery that it is. But it is burdened with a popular misconception that it has been debunked, or proven to be a hoax, which discourages a lot of scholarly people from giving the mystery their thoughtful consideration. Like an urban legend, this assumption (that the film has been proven to be faked) has gained immense popular acceptance despite never having been proven such. Care to disagree? Fine. Where's the proof? Where is a single thorough and scholarly paper or document that explains the hoax? Seek and you will not find. It doesn't exist.

The goal of this essay is to address the complete and glaring failure of people intent on debunking the PGF. For 43 years, they have tried, and for 43 years, they have failed! It is not for lack of effort, nor lack of determination. The effort does not lack for very intelligent people, and they do not lack for evidence to study. Indeed the PGF is likely the most well documented mystery event ever, with a wealth of evidence to work with, in search of a conclusion and proof.

And yet this film defies debunking, because the skeptical proponents fail to grasp one simple but inescapable fact: In order to prove a hoax, you must explain the hoax. They cannot explain their claim, in one coherent story, identifying all the relevant components and discarding all the irrelevant ones. Instead they rely on one of two tactics. The common one is to simply show something superficially or simplistically related to some aspect of the discussion (like a picture or website link) and claim "proof" when no rigorous actual proof is offered. The claim is hollow, but offered with great confidence or assurance. The other is to mask their own failures by constantly diverting the discussion to some other "suspicion", a tactic used in some desperate legal defenses and manipulative arguments, called the "spaghetti defense", a process whereby you keep throwing suspicions up on the wall, hoping some will stick. So they continue to throw suspicions on the wall, and when one falls to the floor, they simply throw up another one. Neither of these is the methodology of scientific or scholarly proof.

To prove a hoax, fraud or illusion, the person offering the proof must first describe the false impression or perception created by the hoaxer or illusionist, and then (more importantly) must explain the actual underlying mechanism, process, and procedure for accomplishing the deception. Skeptical advocates cannot effectively do either, with the PGF mystery.

Trying to disguise their failure, the skeptical advocates try to turn the table and misrepresent the issue (which, sadly, is a sign of their disingenuous approach). They try to say that they don't have to prove the PGF is a fake (which is an implied admission that they can't). They say proponents must instead prove that the PGF filmed subject is a real Bigfoot, and lacking that, the assumption of a hoax can stand by default. But this is a perversion of true logical proof, because in a true logical proof, any claim of determination (hoax or real) must be accomplished by rigorous proof, not assumption.

This essay will (no doubt) be received with criticism by the skeptical community, and they will try and mask their failure by saying proponents haven't proved the film real. This is true. A proof that the film is real has not yet been achieved to a certainty that allows any scholarly consensus or scientific endorsement. But if we level the "playing field" (acknowledge that either side must prove it's claim, and not allow any "proof by assumption") and simply ask, which proof would be the easier to accomplish, we see the skeptical one would be, by far, the easier one to prove if it were in fact the right answer to the PGF mystery.

Skeptical advocates like to point out that we do know ape suits, creature costumes and similar fabrications do exist and examples can be studied in immense detail, while the primate species known as "Bigfoot" or Sasquatch is not verified to exist and so cannot be studied with the same level of certainty and detail as fur costumes and masks worn by humans. They use this description to try and make their claim of assumption as proof. And it is true, the one side has abundant reference material, while the other side has essentially none.

Oddly, it is this very fact that should make the proof of hoax easy to attain (if in fact the film were a hoax), because real fur costumes can be studied, analyzed, and the illusions or tricks that make some look real and some look false can be specified. If the film is a hoax with a human in a fur costume, we should be able to easily draw from the vast knowledge of other known fur costumes and easily expose this film for the hoax that is claimed. And because the proof of hoax should thus be easy, and because all efforts thus far fail to achieve any consensus of proof, the failure of the skeptical advocates is more glaring than the failure of proponents the film may be real, because the skeptical advocates should have a far easier proof to achieve, with far more reference resources for how such hoaxes are accomplished.

It is on this basis that we may conclude that the skeptical advocates effort to debunk the PGF are the more unsuccessful. For 43 years, they have tried, and for 43 years, they have failed!

## Exposing a Hoax, Analyzing an Illusion

To understand their failure, we need first to describe how they should have done it right. If these skeptical advocates did indeed aspire to rightfully prove the PGF a hoax, they would need to follow a methodology for exposing a hoax or illusion.

Many of the PGF skeptical advocates I have encountered participate in the JREF, an internet forum established by James Randi. Mr. Randi made a name for himself by using his background in stage magic and illusions to investigate claimed paranormal and psychic activities, and exposing them as frauds and hoaxes, by applying his knowledge of stage magic to his analysis of their hoaxes. What he rightly understood is that to expose a hoax, you must explain the mechanism of how the hoax is accomplished. Sadly, of the many people who populate his forum today and post their discussions of the PGF, there are precious few who seem to demonstrate any true understanding of this essential concern. To expose a hoax, you must apply a methodology of explaining how the hoax was accomplished. In their challenges to the PGF, these JREF forum regulars (and skeptical advocates everywhere) fail to do this, consistently.

And so this is where the skeptical advocates against the PGF fail most miserably. They do not follow any such methodology of analysis to make their claims of hoax.

But since they do not follow any such methodology, indeed they have not even shown an awareness of how it is properly done, we should establish a basic method for explaining hoaxes and revealing fakes, in general. This section will offer summary descriptions of method, and at the end of this document, in Appendix One, the Case Studies, I will provide specific and more detailed descriptions of how hoaxes and illusions are studied and revealed. You may, of course, skip down to that section now if you like, or read it after the PGF discussion is concluded.

So (summarizing now for brevity), how does one analyze an illusion, a hoax? Generally this is best done by a thorough explanation of the process which produced the hoax, illusion, or misunderstood event. The imperative point is to explain how an action or event deceives, how it is misunderstood, what constraints or specifications are needed to insure successful deception, and how, under analysis, we can identify that in fact it was done.

### Dividing the PGF into categories for a Hoax

Let's begin by dividing the PGF Mystery into specific aspects, and look at how a proof of hoax might be accomplished for each element. These are generalized things the advocate should do or have in order to advance a claim to higher credibility. Specific examples are discussed in the following section.

**Hoaxing the Costume** - To show the PGF is a hoax, by claims about a suit or costume worn by the actual figure seen in the film, one needs to truly understand film effects costume design, and the physical behavior of materials used for such costumes. As well, the person advocating a hoax must demonstrate a solid and thorough understanding of the PGF image data and resources. Here, skeptical advocates often make claims of astonishing ignorance trying to explain the costume they imagine. And the few professionals who have offered claims the film is hoaxed,

these people have offered very poor and simplistic remarks, which fall far below what we expect from a disciplined and rigorous analysis.

Hoaxing the Filming - To show the PGF is a hoax, by claims the filming of this 16mm motion picture itself has evidence of such hoaxing, requires the skeptical advocate to demonstrate a reasonable knowledge of film making, cinematography, camera mechanics and film editing. Also, the person advocating a hoax must demonstrate a solid and thorough understanding of the PGF image data and resources. Sadly, the skeptical advocates who most often indulge this form of hoax claim are badly lacking in the foundation knowledge to make their claims credible and persuasive.

Hoaxing the Story of the Filming - Some claims of hoax vest in suspicions about the description of the events by the principles involved (mostly Roger Patterson and Bob Gimlin), and the usual tactic is to look for discrepancies in remarks, testimony and statements made by the men. But the skeptical people who rely on these issues to try and claim hoax fail to consider an important factor. How does an investigator separate simple human frailty and imperfection from deliberate intent to deceive, because any proof of deception must show how the errors of human frailty are excluded from consideration. Irregularity in remarks or testimony is not inherently deceptive, as skeptical advocates love to imply. So a proof of hoax, based on flaws in the story of the filming, must show how human frailty is considered and excluded for cause or reason. But the skeptical advocate usually goes into denial of this issue, as if human frailty simply did not exist.

Hoaxing the Community - Some claims have looked deep into the life of Roger Patterson and tried to show a pattern of hoax and deception in his activities with the community he lived in, over the years leading up to the famous filming at Bluff Creek in 1967. These claims rely heavily on testimony of other people, and if the testimony goes against Roger and supports the claim of hoax, it is usually taken as gospel, certifiable truth. But with any testimony, we must consider it's reliability, and challenge such. Is the remark an actual quote or a recounted second hand description of remarks? If an actual quote, was the quote truly correct, not misquoted? Can we be certain that the person offering the remark is truthful? Was the remark made in a timely manner immediately after the event remarked about, or is it a recollection of 10, 20, or 30 years later, because recollections over time can evolve far away from the actual fact of the time?

The skeptical advocate using such information and testimony must show consideration for all these factors in trying to determine the reliability of any such testimony, even before making the attempt to connect the testimony to a proof of hoax. This type of evidence is by far the weakest, being so highly circumstantial, so thorough consideration of the circumstances, and ideally corroboration, are needed, but almost always lacking.

## Known Efforts to Prove the Hoax Claim

Now we examine the more prominent specific efforts to debunk the film, with consideration for their accomplishments and failings.

### A. The Scientist, David Daegling and his book, "Bigfoot Exposed"

The author is an anthropologist, and his book is actually an examination of the overall "Bigfoot" phenomenon. The PGF is given one full chapter.

For the most part, his analysis of the PGF circumstance and issues is reasonable, and he does point out issues and concerns about the film, such as the film processing timeline, and the estimations of PGF subject height by Murphy and Glickman (NASI). In the manner of the height estimations, Daegling demonstrates that he understands the problem, and the variables of camera depth perception which make the height estimates questionable. In that regard, his effort is admirable and logical.

His expertise is clearly not with the movie industry, or creature makeup special effects, so even though he relies on some expert sources for ideas, he is not well equipped to properly appreciate the discussions and make determinations on the theories he references. He particularly suggests a human, with some padding and cotton "long johns" (thermal underwear) might make for a costume that has the suggestion of muscle anatomy he describes as visible in the PGF subject. He fails however to take this idea to the next step of how hair or fur is attached to this costume structure, and how that process would impact on the stretch and flexibility of the cotton. Failing to consider that (and many of the hair or fur processes would greatly reduce either the flexibility of the cotton, or obscure any perception of the anatomical muscle shapes he describes), he presents an incomplete and flawed idea. So in that sense, his analysis is weakened by his lack of real understanding of special effects costume design and process.

He does also make an error in his appraisal of the status of movie apesuit development, when he remarks (on page 112): **"It is very important to remember the date of the film (the PGF). In 1967, we were still a few years away from Planet of the Apes and 2001: Space Odyssey. Ape and Monster costumes were not very sophisticated and apparently hard to come by. . . ."**

Planet of the Apes was released on Feb. 8, 1968 (a mere 3 1/2 months after the PGF was filmed on October 20, 1967) and was filmed from May 21, 1967 to August 10, 1967, before the PGF was taken.

2001:Space Odyssey was released on April 2, 1968 ( mere 5 1/2 months after the PGF filming) and principle photography began December 1965 and was completed in September 1967, before the PGF was taken.

So in both cases, the ape costumes and effects of both films actually were designed and made, with all their sophisticated elements, well before the PGF was filmed. Given that this data is relatively common and accessible, and film industry veterans know that things used in films exist

long before the film's actual public release date in theaters, Daegling reveals here a weakness of both research effort and understanding the subject matter (the movie creature costume issues).

Overall, however, his appraisal of the PGF mystery is fair and has merit. For that reason, I find his remark on page 106 to be particularly harsh on skeptical advocates and their claims of debunking the film. Daegling remarks: "True believers still cling to this film as the most credible indication that something is out there, **since at this writing thirty-six years have passed and definitive proof of a hoax has not surfaced.**"

(my bolding of text, for emphasis)

It should be noted that Daegling does acknowledge Greg Long's book "Making of Bigfoot" and acknowledges the claim of Bob Heironymous, as well as makeup artist claims that John Chambers made the alleged PGF costume, and by his remark above, clearly does not consider any of those to be "definitive proof of a hoax"

## B. The Hollywood Makeup Experts

With the exception of myself, there is not any veteran Hollywood Makeup Artist who is also an active PGF or "Bigfoot" researcher/analyst. The many who have made comments about the PGF should thus be classified more as "Expert Witnesses" than researchers. And as such, they and their opinions or appraisals should be bound by the conventions of expert witness consideration.

But in this matter, again, the skeptical advocates try to offer these opinions or appraisals from assorted makeup artists, and fail completely to set up the offered opinions in a manner to reach even the lowest level of reliability as expert witness testimony.

An expert witness cannot simply offer a conclusion, without foundation, in any procedure or process, and expect that opinion to have merit toward a resulting proof. Nor can an advocate for a proof rely on expert witness testimony to make a credible presentation of proof without offering some consideration of foundation that the testimony is based upon. Yet skeptical advocates do exactly that, time and again, because the opinion or testimony supports their claim of hoax.

So this essay offers up a formula for the foundation we reasonably should expect from any expert witness' testimony or opinion about the PGF. This foundation standard should be applied equally to proofs either for the PGF being real, or the PGF being hoaxed.

As "expert witnesses", we should expect their contribution to this proof to include basic and reasonable foundation information, such as:

1. What did you actually look at? Stills, film, video, what size image or resolution, what quality level?
2. Who provided this material, or how did you acquire it for study?
3. What analysis methods, tools, or software did you use?
4. Did you make comparisons with any other material (comparing other fur costumes or suits, or comparing with any anatomy information)?
5. Did you do any tests or experiments?

6. How much time did you spend in your effort?

It would be the responsibility of the advocate offering this "expert testimony" as part of a proof to make sure this foundation material is included, or lacking such, the expert should be willing to respond to questions of this nature after the fact, as a follow-up.

Now we look at some specific quotes of Makeup Experts which can be verified as true verbatim statements of opinion:

Rick Baker: Interviewed on camera for a TV program hosted by Geraldo Rivera in the 90's, where Rick is on a setting with the fictitious "Bigfoot" Harry of the "Harry and the Hendersons" shows Universal Studios did. Rick is seated by a costumed actor as "Harry" and begins by commenting on the Harry costume, particularly how the hair for the suit was hand tied, one hair at a time, by an "army" of fabrication crew members over several months. With that introduction made, the TV show host then asks Rick:

"You saw the Patterson film. What was your impression of it?"

Rick Baker replies: "It looked like fake fur to me. Like the cheap fake fur you could buy at the time. Same length, same texture. Looked fake."

That's it. One brief remark is the sum of Rick's documented analysis of the PGF. We should assume more questions were asked, more replies made by Rick, but sadly, (if so) the program edited those out.

Rick's talent is truly amazing and his credentials are above reproach. So naturally his opinion carries a lot of weight. But the use of expert witness testimony in a formal logical proof cannot take a remark as correct, simply because it was offered by a person of outstanding credentials. The expert's analysis can only be as good as his data and his methods, and in a formal proof, those must be disclosed.

Looking at the checklist of foundation issues, in connection with this interview of Rick:

1. What did he actually look at? Stills, film, video, what size image or resolution, what quality level?

**We don't know.**

2. Who provided this material, or how did he acquire it for study?

**We don't know.**

3. What analysis methods, tools, or software did he use?

**We don't know.**

4. Did he make comparisons with any other material (comparing other fur costumes or suits, or comparing with any anatomy information)?

**We don't know.**

5. Did he do any tests or experiments?

**We don't know.**

6. How much time did he spend in his effort?

**We don't know.**

Not a very compelling support for a correct analysis.

For example, let us consider item #4 "Did he make any comparisons with other materials?" especially in regard to his remark about "same texture" as fake furs of the time.

He is looking at a 16mm film, presumably a copy of the original, of a subject figure's full body which is a mere 1mm high on the film image surface. The film grain does not resolve any shape or object larger than about 1/2 inch relative to the subject's estimated body size, and hair or fur is certainly much finer than 1/2" thick. How does one determine the texture of hair if the film cannot resolve it?

We could have more confidence in this appraisal of the film, if Rick had shown or disclosed having looked at 16mm film of both real fur and fake furs on the film, at the same scale relative to film grain, and shown he can distinguish real fur from fake fur by its texture from such tested demonstrations. Indeed we must ask if he has even seen documented fake fur photographed on 16mm film, with a subject only about 1/6th of frame height. From his vast experience making movies, more likely all his experience in looking at both fake and real fur would be on 35mm film, a far higher quality film stock, thus capable of resolving more detail and possibly allowing a distinction between fake and real fur textures.

In Mark Chorvinski's Strange magazine feature article on the PGF and Hollywood Makeup Artists, the author does describe remarks from Bob Burns about how Burns and Rick did view the PGF film on a moviola (a film editing machine). but the standard screen on a moviola is about the size of a 4x6" snapshot. If the film provided them to study was a full frame print, they would be looking at a full body figure a mere 3/4" tall, head to toe. It may have been a deluxe moviola with somewhat larger screen, or a flatbed with larger screen still, and the film could have been a zoomed in print that enlarges the subject body, but again, we simply don't know, because this essential foundation information is not disclosed.

How can we rely upon an expert witness' analysis if we cannot verify how that analysis was done, what level of quality data was provided for the expert to evaluate. We cannot accept that he could determine anything about hair or fur texture based on the resolution of 16mm film and the filmed subject size on that film, or that he even can or has shown an ability to distinguish real fur from fake fur when filmed in 16mm film stock. It is questionable if anyone can.

And the expert witness does not make himself available for questioning to clarify these concerns.

If Rick's remarks were introduced as expert testimony in any formal proceeding that had standards for foundation before expert testimony can be used, Rick's remarks would be inadmissible as lacking foundation, and rightly so. It is not Rick's failing in any sense and I do not want anyone to misconstrue that I think it is. Rick was simply asked his opinion and he gave it, no doubt in good faith. The failing is in skeptical advocates thinking that what Rick offered constitutes any reliable determination a proof of hoax can be concluded from. Rick himself could have been deceived by the quality of the data he was given to examine, which may have been poor and misleading.

So however compelling it seems to skeptical advocates to have Rick Baker's opinion on their side, the opinion provides no weight toward a rigorous proof of hoax.

Dick Smith was interviewed in the "Best Evidence" Bigfoot episode of Investigation Discovery on or around 2006 or 2007. Mr. Smith (whom I refer to more formally, because his common first name gets censored by some internet word filters) is also a legend in the makeup effects industry, a man I personally met twice and talked with about makeup technique for fairly lengthy sessions. He is not only remarkable in his talent and innovation, but in his openness to share his knowledge with others. His many extraordinary film accomplishments inspired me throughout my active career as a makeup artist.

Mr. Smith is shown looking at a TV monitor with some PGF frames displayed, which the program uses repeatedly for various experts to comment on the PGF. A transcript of his remarks and the interspersed narrator remarks are as follows ("N" is the program narrator, DS is Dick Smith):

**DS: "Assuming this is a put up job, they didn't do a very good job of it."**

N: Is the bigfoot captured in this famous 1967 film real, or a tall person in a padded suit? Ape or Hoax?

**DS: " I would say this is a hoax".**

N: Dick Smith is an Oscar winning special effects makeup artist who was active when the bigfoot film came to light.

**DS: " See That. It looks like a nice spike nose sticking out there. The nose is right up there where a human nose would be. Look how high the dome of the head is, with all this hair camouflaging it.**

**The soles of the feet come across as not a true color, but a light solid color and no contour. I would do a lot of fancy painting on that, to make it look three dimensional contoured.**

**There is nothing in there, as far as I'm concerned, that indicates it is anything but a big, bulky human in a suit."**

Then asked about rumors John Chambers may have made the suspected suit, Dick Smith replied:

**DS: " Johnny Chambers, who was the Hollywood Makeup Artist of much fame, and who had done the Planet of the Apes. I don't think that he was responsible for this, because I consider this an amateur makeup job. He liked the mystery, and he certainly liked notoriety, and I think he just let everyone. . . . he just took the credit."**

Looking at the checklist of foundation issues, in connection with this interview with Dick Smith:

1. What did he actually look at? Stills, film, video, what size image or resolution, what quality level?

**Image stabilized frames of the PGF prepared and shown on the Program, the same as other experts were shown. The quality level appears to be good. The monitor resolution is uncertain.**

2. Who provided this material, or how did he acquire it for study?

**The presumption is the program producers provided it for Mr. Smith to study.**

3. What analysis methods, tools, or software did he use?

**All we can determine from the program is that Mr. Smith watched the frames or footage on the monitor, and could see motion as well as still frames. He commented on his observations.**

4. Did he make comparisons with any other material (comparing other fur costumes or suits, or comparing with any anatomy information)?

**We don't know.**

5. Did he do any tests or experiments?

**We don't know.**

6. How much time did he spend in his effort?

**We don't know.**

On Mr. Smith's remarks about the nose, he described it as a spike, and where a human's nose should be. The spike description would be worthy of further examination, but he does not elaborate and we cannot do further inquiry to seek clarification.

On the head and the described "dome", the head does have a dome like appearance in the lookback frames (face to camera) but the profiles turning to camera and then turning away do

suggest a different head shape. This would be something that could have been pointed out to him for his consideration, but we cannot now.

On the color of the feet, the pale and solid tone of the sole of the foot can be the result of the repeated copying of the film, which builds up contrast, and the copies are exposed to hold the dark body tonalities in the dark mid range, so the highlights are lost in the contrast buildup. We know this effect occurs, and did so in the copy Mr. Smith was shown examining, but nothing in the program acknowledges if Mr. Smith was aware of this factor. Additionally, there is a question of possible earth or clay ground material attaching to the feet as the subject walks through the scene, and if this ground material may be giving the soles of the feet a chalky pale tone. We do not know if Mr. Smith was aware of that and factored that into his analysis.

These are the types of concerns that a cross examination of an expert witness is required to submit to, in any procedure where a formal proof or conclusion is sought, and sadly, we cannot do so with Mr. Smith's remarks or testimony. Lacking that, skeptical advocates can submit Mr. Smith's analysis as testimony supporting the theory of a hoax, but any rebuttal in consideration will bring up these concerns.

There is also the curious discrepancy between what skeptical advocates tend to stress the most, as obvious flaws (the buttocks often referred to as "diaper-butt", the claimed immobile breasts sometimes referred to as "tummy rocks", the line on the right thigh which is claimed to be the indication of some hip-wader-like gear under the suit, and assorted claims of apparent cloth folds), and what an expert like Dick Smith finds or considers important as the evidence of a fake costume. Did Mr. Smith have any concern for these other body aspects, or did they look okay to him? We would think, if the PGF shows a suit and the suit has flaws, there would be some consensus of what those flaws are, which ones are the more obvious and reliable as proof of a hoax. There is no consensus among the makeup artists whose opinions are documented.

The larger issue in this case, as with the interview with Rick Baker, is that the failure is more with the TV program format and producers, because they present brief comments but no foundation material (too long and boring, they will most likely say), but without this foundation material, and ideally some capacity to cross examine the expert, we are left with conclusions lacking foundation, which reduces them to mere opinions, useless for a formal rigorous proof of hoax.

Some people will continue to be influenced by these opinions, and I have no doubt the men referenced here are offering good faith opinions they sincerely hold. It is the method of the material, which may make for lively TV programming, but fails as true expert witness testimony for a rigorous proof. However, skeptical advocates will likely continue to use these opinions as colorful fodder for internet arguments on the topic, and no doubt help fuel the urban legend fallacies.

### C. The Investigative Journalist, Greg Long, and his book, "The Making of Bigfoot"

Long's book has been intensely debated since its publication, and many people polarize toward one extreme or the other, worshiping the book or vilifying it. My appraisal is neither. I found it intriguing in the information about Roger Patterson's life, and actually gained a new respect for Patterson after reading as much as I did of the book. I found the first chapter useless in the way Long attempted to tell the highly dramatized story of the Bluff Creek PGF filming, as if he were writing pulp fiction, but it diminished the subsequent chapters because we must wonder if he embellished those chapters with the same literary flare he injected into the first.

Most importantly though, I found that for all his effort, he was left with ultimately a collection of recollections so highly circumstantial as to be very doubtful as any kind of proof. For each person's remarks, we must ask:

1. Was the person correctly quoted, word for word? Is there any way we can verify the first person remarks? (Apparently not)
2. Did Long leave out any remarks which other researchers may find to have relevance toward a conclusion opposing Long's conclusions?
3. Was the person interviewed being honest?
4. Given the interviews were of incidents 25 or more years back in time, can we rely upon the memories to be accurate in detail?
5. Finally, and most importantly, if we were to take all the quoted remarks as true, accurate, and complete, would other researchers come to the same conclusions as Long did in interpreting the material? I certainly did not.

Clearly Long has taken a position of believing Bob Heironymous was the costumed figure running through the PGF, and believing Phillip Morris was the source of the costume. But for the skeptical advocates who embrace Long's work, they also like to embrace the various Hollywood Makeup Artists who think the PGF is a fake, yet none of these Hollywood makeup artists endorse any explanation consistent with the Morris claims and the Heironymous story.

Long's greatest failing is that he did not delve into issues of makeup effects and creature costume design as thoroughly as he did the personal lives of the PGF participants. He chose circumstantial testimony over factual material analysis, and he tried to show intent to hoax, but neglected showing capacity to hoax.

## Conflicts between "Experts" that skeptical advocates do not address or resolve

Makeup Artist Chris Walas participated in the Bigfoot Forums in 2004 and offered to do an analysis of the PGF. He is to be commended for doing so, and putting himself in a position where he can respond to questions about his analysis. He concluded the film was a hoax, and described what he thought were indications of a two piece body suit with a specific design called a "snap-crotch" configuration (like a scuba diver's wetsuit and a woman's body suit clothing often has). Bob Heironymous describes a two piece suit with waist split and drawstring closure, a vastly different design. Given most men in their lives never actually put on clothing with a snap-crotch (unless they are scuba divers or cross-dressers), Bob Heironymous should rightfully remembered a snap-crotch if he had dressed into one. This conflict of design description undermines the claims.

Second, in Mark Chorvinski's detailed report about Hollywood Makeup Artists and the PGF, he describes Bob Burns as studying the PGF with Rick Baker and the two men concluded there was some kind of water pouch, as famous "gorilla man" Charlie Gamora used in the 40's. A water pouch gives substantial weight to a suit and gives the belly a sway that seems anatomically real, but the weight must be substantial to do so. If such a device were in the PGF suit, even if Bob Heironymous could not see it, he would feel the weight, which would be unforgettable. Is his recollection wrong or are Rick Baker and Bob Burn wrong (or both, as a third option).

In regard to both issues (the suit design and the claimed water pouch), the one thing we can say with confidence is they cannot all be right. Skeptical advocates must make an effort to determine who may be wrong, and exclude that person's remarks, testimony, or opinions from a formal proof, to avoid such internal contradictions.

To advance a formal proof of hoax, the skeptical advocate would need to clear up these discrepancies, and should ask: would any experienced Professional Effects Makeup Artist endorse a Morris gorilla costume as the PGF's source material, based on photos of the Morris suits from their catalogue of 1960's products? Or would any such Makeup Artist endorse the Bob Heironymous description of the suit being a two piece body, with a waist split, and some kind of drawstring to hold the waist? And would any Makeup Artist endorse the reasoning of taking an existing one piece suit, zipper up the back (as Morris supplies) and agree it could be modified into a two piece body, with the zipper either removed or covered up, and yield the PGF result?

If no makeup artists will, then you have your own team playing against themselves, not a winning strategy.

It is this kind of internal conflict in the skeptical claim of proof that undermines the proof's credibility and prevents it from ever achieving a public or scholarly consensus of acceptance. You can't prove something by offering two elements of your own proof which contradict each other. If you try, you reduce your claimed "proof" to a disingenuous sales pitch, nothing more.

The simple fact of any credible and persuasive proof is that it must have one coherent line of reasoning. The skeptical advocates do not have one, and by embracing every claim or opinion which says "the PGF is a fake" and not paying attention to the internal contradictions of these claims, the skeptical advocates strengthen their claim as perceived by the superficial and simple minded audiences, while destroying their claim to those who subject it to rigorous analysis and review. I guess the essential issue here is whether the skeptical advocates want to win over the smart people or the dumb ones. For all their assurance of the former, they pander to the latter.

### "Common Sense" Claims

One of the more amusing approaches to trying to debunk the PGF are "common sense" claims. The person arguing the point offers some conclusion based on "common sense", which is merely a personal assumption of a fact, and not a rigorous proof of a fact by any means. They may actually offer these claims in naive but good faith, or just use the claim as a pretentious bluff. In either case, the "common sense" claims reveal a failure or disregard for the requirements of a formal proof.

A. "There is no bigfoot, so it must be a suit." - Aside from the basic fallacy of claiming there is no bigfoot, since we cannot actually prove something does not exist, unless it defies the laws of physics perhaps, this claim usually ignores the fact that to even try and prove "Bigfoot" does not exist, you must credibly address and refute not only the PGF, but every footprint cast or trackway, refute every eyewitness testimony, refute every hair, scat and other biological sample, and explain the varied historical accounts. You cannot just prove a portion or sampling are wrong, and assume the rest are. As nobody has done so, the "common sense" claim becomes a sort of "Hail Mary" attempt of wishful thinking, nothing more.

B. "Because it looks like a monkey suit to me." - People often say this with remarkable sincerity, thinking that if the PGF looks like a "monkey suit" to them, everyone else surely must see it the same way. They seem to think that remark is a conclusion in itself, failing to understand you need to say "it looks like a monkey suit to be, because . . . . (and a formal analysis must follow).

### The "Red Flag" Festival

There is a common phrase in our language, some variation of "This raises a red flag." The phrase in true form indicates caution and concern, because an issue or condition is odd, suspicious, or contradictory, and deserves further analysis and consideration. It is not a conclusion, but skeptical advocates of the PGF often use it as one. They seem to feel if they raise enough red flags, then a proof of hoax must follow and be confidently verified. The fallacy of this reasoning is that until the "red flag" issue is fully investigated and a conclusion determined, we cannot assume the eventual conclusion would support a hoax of the film. The best example of the "red flag" festival is the issue of the film processing timeline, the concern for how the film could have been filmed on a Friday afternoon in Northern California, and processed in Washington state on a Saturday, for viewing by the principles on Sunday morning.

A. The Timeline - It is actually remarkable how thoroughly this issue has been investigated. And it troubles people on both sides of the PGF debate. Most people I know who have confidence in

the PGF's authenticity do actually have concerns that something is wrong with the timeline, as presently described, but the skeptical advocates still misrepresent that PGF proponents are ignoring the issue, because to the skeptical advocates, any conclusion other than "hoax" is unacceptable by their reasoning.

Something is clearly wrong with the processing timeline as described, but we cannot conclude a hoax until we actually know what it is that is wrong in the timeline description. But for the skeptical mindset, all roads lead to "hoax", even if they don't know where the error is, who made the error, or why.

B. Testimony Discrepancies - Skeptical advocates pour through testimony of the various people directly and indirectly involved with the PGF incident, and seize even the most innocuous discrepancies of semantics and choices of vocabulary as "discrepancies" worthy of being red flags. They hold people's remarks to an absurd standard of precision, when people in most conversation do not follow such precision. But once again (as noted previously in this essay) the skeptical advocates are totally in denial about simple human frailty, and how people can use varied words and different phrasing to describe things or events, in the context of differing conversations.

C. Roger's Curious Life - Roger Patterson did indeed live a curious and irregular life. There are certainly many people who have offered testimony that he was not honest. Most of these claims follow a pattern of "But he was (this) so he could have done (that)" kind of reasoning, which is highly speculative on the part of the person making claims of what it proves. But that kind of rank speculation simply doesn't belong in a rigorous proof, and the more skeptical advocates rely upon it, the more they perpetuate a "half-baked" and never done claim of proof.

### A Rigorous Proof

A rigorous proof, that the PGF is a hoax, has never been offered. Yet it should be possible, if indeed the film were a hoax. Advocates for a hoax should be able to clear up the issues and discrepancies about how the alleged suit or costume was made, given that they like to claim most makeup artists agree it is such. Yet these makeup professionals are curiously reluctant to get involved in a formal and rigorous proof of hoax. One would think that a definitive debunking analysis "Why the PGF is a hoax" by a makeup artist authority, would be a valued and respected effort. We could finally point to this one source and say, "here it is, well done and case closed". It would seem to be an accomplishment of noteworthy credit for such a makeup effects professional, a star on that person's resume.

Advocates for a hoax should be able to clear up the claims the filming was hoaxed or staged yet they make no real effort whatsoever. Instead they just make hollow and unsubstantiated claims (the most common saying the film's been spliced, but never proving such), apparently thinking that if you say it loud enough and enough times, it will become a fact.

It won't.

Advocates for a hoax expend an astonishing amount of time and effort pouring through testimony looking for the meagerest discrepancy of words or phrases, on the assumption that with enough magnification and ever increasingly narrowing the definition of words, they can find a mismatch which they can claim is a "red flag", and then inflate into a "proof" of something. It's a hollow pursuit, that method of trying to discredit people and then use the discredited claim to build a claim of hoax upon. You may as well try to build a high rise building on a large parcel of quicksand.

### Invitation for Rebuttal

I would genuinely like to see a resolution to this mystery of the PGF, and contrary to skeptical accusations, I am not locked into any "belief", and remain fully open to the prospect the film was hoaxed, if someone could simply explain how the hoax was accomplished. If it were, I would be fascinated to know how it was done.

So I cordially invite anyone who is confident the film was hoaxed to submit a presentation of proof, and I will be pleased to re-publish this essay of mine with the rebuttal included, and I give assurance the rebuttal I publish is 100% faithful to the submitted version, unedited. If more than one is submitted, space allowing, I will be pleased to include more than one, each one complete and unedited. Credit attributing the rebuttal to a specific person will be to any specifications the author requests, and any request for confidentiality (such as not disclosing the email address source of the submission, as an example) will be honored.

Should anyone wish to submit a rebuttal essay or proof, please email it to me at:

wmunns@gte.net

### Appendix One

Proving a Hoax - One curious aspect of the skeptical advocates enduring determination to prove the PGF a hoax is that, apparently, they don't know how to do it. They know how to find suspicion in every trivial fact or remark, they know how to take issues of semantics and turn them into "smoking guns". But they actually don't know how to analyze a situation and if it is a hoax or trick or illusion, prove such in a structured and logical way.

As I noted above, in the introduction, the way to prove something is a hoax or trick or illusion is to explain it, demonstrate a knowledge of how it is done, and then describe the specifics of an individual case, based on the data available and the hoaxing or illusion mechanism.

So I felt it would be appropriate to offer some examples of both hoaxed "bigfoot" cases and other types of tricks and illusions as well. We can learn from these examples what method and process should be applied to any attempt to debunk the PGF effectively.

## "Bigfoot" Hoaxes

### 1. The "Bigfoot" Body Hoax

This occurred with the Georgia Bigfoot "Body" in the freezer, and I watched some of the internet participants find the mask used within 12 hours of the first "body" image posted. Below is the imagery posted in the forums by diligent researchers. I was frankly astonished at how quickly they found the mask.

So, in terms of proving a hoax, one fine method is to actually locate the component masks or suit parts. Sadly, this works best with more contemporary hoaxes, because hoaxers more likely use some kind of commercial mask or costume they can buy, and if they do, investigators can likewise find the same thing. So the prospects of finding a mask or costume with could be called the PGF is less likely, although some have tried with fanciful claims that certain masks were the one used for the PGF.

In the matter of the Georgia Bigfoot Body hoax, the chart below was the work of William Parcher, "Crowlogic" (A forum screen name), and "Plaidlemur" (another forum screen name). What's interesting is these people, for the most part, tend to stand on opposite sides of the bigfoot and PGF discussion in forums where they both participate.



Costume found by W. Parcher and Crow Logic. Blend imagery by Plaidlemur

## 2. The "Tongami" Video

Similarly, when some footage was released of a claimed bigfoot (called the "Tongami Video"), it took only about 36 hours for the mask to be found that was used to fake that video footage, as shown below:



The key to this particular footage and mask in the odd "V" in the center of the upper lip, and the corresponding full lower lip with the vertical crease in the center. Plus the distance from lip to nose, and the match was made.

It should be noted that once these images (of the claimed "real thing") hit the internet, they were usually debunked in days, or even hours. That makes the enduring PGF all the more a rarity by the fact that it still challenges debunking after 43 years.

### Other Types of Illusions Studied

I will begin with a "magic trick" commonly called "Girl to Gorilla", a side show, carnival, and haunted house trick widely used for many years. I have chosen this one specifically because in the PGF, a costume manufacturer, The Phillip Morris Company, makes a gorilla suit for such illusions, and the owner, Phillip Morris, does claim one of his gorilla suits is in fact the basis for the PGF creature we see. So given that he claims the film to be a fake, and claims further that his gorilla suit product was a part of that fakery, I felt the "girl to gorilla" illusion would be particularly apt as an example of how we study illusions to explain what is really happening.

#### Example #1 "Girl to Gorilla" Illusion

What the audience Sees - Generally, a live audience is seated so they all tend to look in a similar direction at a stage platform. And on that stage is a large box. The MC or Presenter brings out a girl (or woman) and introduces her, so the audience sees clearly she is real. Once introduced, she enters the box and sits on a stool or chair, facing the audience. Some type of opening in the front of the box allows the audience to look in and see the girl sitting there, facing them. For dramatic effect, lights may glow and dim, dramatic music may be added ("Drum roll, please") and then, as the audience watches, the girl magically transforms into a gorilla over a course of a few seconds.

Then a noise, flash of light or other startling event distracts the audience momentarily, and the gorilla has now emerged from the box, and may run out among the audience to scare people.

Suffice to say, the girl does not actually transform biologically into the gorilla. There is merely the optical illusion that she does.

Technology of the Illusion - The basic technology to make this illusion work is a sheet of glass, plate glass, specifically. Plateglass (like window glass) has a curious optical property in that it is capable of both transmission of light (through the glass) and reflection of light (off the glass surface). Glass does both transmission and reflection simultaneously, and whether you see the transmitted image from behind the glass, or the reflected image from something in front of the glass, or a blend of both, depends on the intensity of light coming from each direction. Your eye will respond to the brighter light and adjust the pupil to perceive the brighter light well. If the other light is dimmer, you will see it less. If the other light is almost totally dark, you will only see the one bright image.

It is this property of glass which, once understood, allows an illusionist to create the "girl to gorilla" transformation trick.

Illusion Procedure - The box is constructed to have a window area, where the audience sees the girl, and a side area which the audience cannot see inside. In front of the girl is a piece of sheet glass, set at a 45 degree angle to the lines of the box. The chair or stool the girl sits on is aligned in relation to the audience view and the angle of the glass so that another chair or stool in the side

closed part of the box will reflect off of the glass and appear to be in the same spot as the girl's chair or stool. The person in the gorilla costume sits there.

The illusion is accomplished by changing the amount of light shining on the girl, and the amount of light shining on the costumed person. Initially, when the girl enters the box and sits to face the audience, the lights on her are bright, and the lights on the costumed person are off. So even though there is a reflection of the costumed person (the "gorilla") on the glass, it is so faint that the audience cannot see it. They can only see the very bright light image of the girl transmitted through the glass.

The transformation is accomplished by simply dimming down the lights on the girl, while dimming up the lights on the costumed person. The glass both transmits the girl's image and the "gorilla"s reflected image, but what the audience perceives depends on the relative intensities of those two light images. As the girl's lights dim to dark, and the "gorilla"s lights dim up to intensify, the girl appears to be transforming into a gorilla.

Once the gorilla image is the single intense one, the next task is to get the costumed person out of the box, but without letting the audience see that person is coming out from the hidden side of the box, not the place the girl was sitting in. So a distraction, a flash of light, a sudden sound, some side activity, something momentarily distracts the audience while the costumed person gets out of the box and stands in front of the mirror.

The staging may vary in detail, but the underlying principle is the mirroring effect of glass, and the balance of seeing images both transmitted through and reflected off of the glass. This illusion in it's original form, is often referred to as "Pepper's Ghost". So it is a well studied and easily identified illusion.

How Would We Expose This Trick:

Generally, the primary way to expose this trick is to study the structure of the box, because it has very specific dimensional and mechanical requirements for the illusion to work. Second, we would study the lighting on stage and on the box, specifically, because the lighting must be controlled for success. Third, we would look at the staging of audience in relation to the trick, because it requires the audience to be grouped in a place where they all share a very similar point of view.

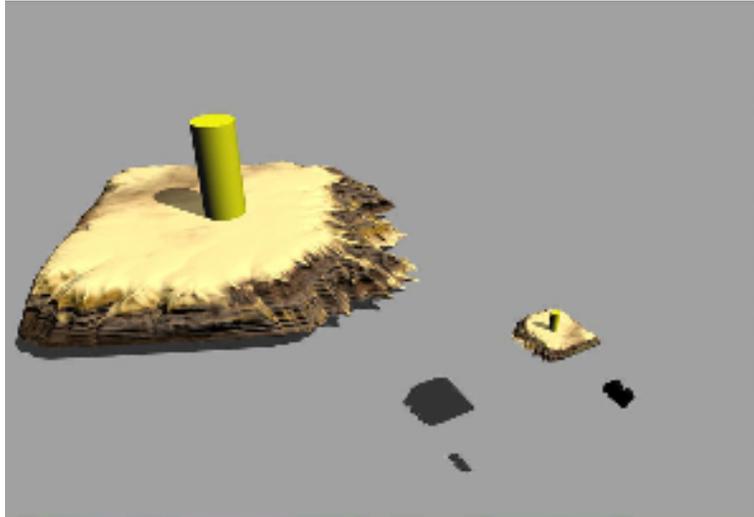
#### EXAMPLE #2

A second example of a illusion or trick process is one I have personal experience working with, since it was a common motion picture special effects trick, before the development of CGI (Computer Graphics Imagery), which it the mainstay of visual effects today.

#### Foreground Miniature Trick Photography

What the audience Sees - For the special effect trick called a "foreground miniature", a small object close to the camera is made to look like a very big object much further away. First, the general principle is explained, and then a few examples below are from my own experiments with the technique.

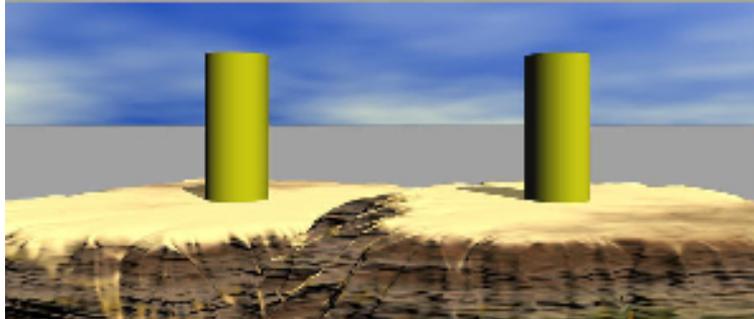
## General Principle (Illustrated):



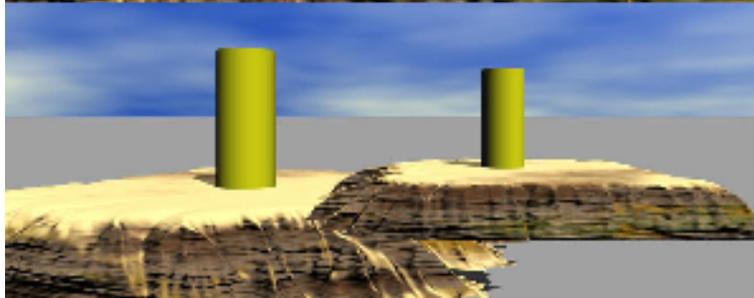
### Foreground Miniature Visual Effect

The set-up has a full scale element (far left) and a miniature element set close to camera (on right).

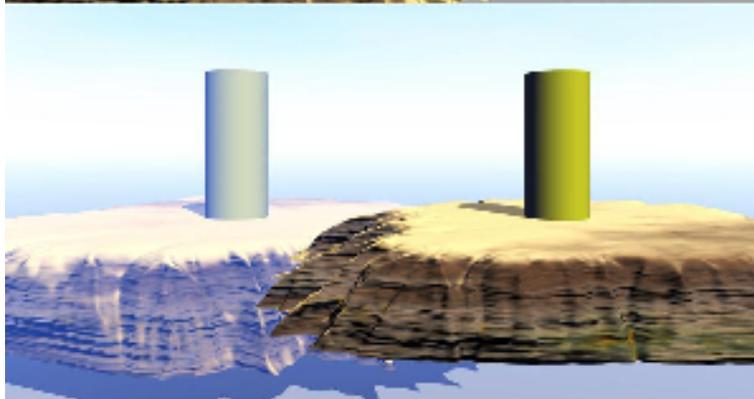
The alignment must be made while actually looking through the camera lens. Additionally, the lens must be set for a large depth of field, so F Stops of F11, F16, and F22 are common.



Through the camera lens, the scene will look like this (at left). The two cylinders look equal in size.



Any change in camera position will ruin the illusion and expose the trick. For example, here, the camera was moved back slightly and the close object got smaller in comparison to the distant object.



Haze or smoke in the air can also ruin the illusion because the distant object will be more hazy than the close object.

So, like all visual illusions, there are rules for how it can be successful, but breaking the rules will expose the trick. If we understand the rules of an illusion, we can detect when it is being used.

How Do We Find Evidence of the Trick or Hoax:

We need a criteria for either validating the authenticity of the image or verifying that a trick or illusion is being done. Understanding the illusion or trick method and requirements for success gives us that criteria, which is why it is imperative that to expose a hoax or illusion, one must know how it is engineered or accomplished.

With a still picture, we are limited by the available data, as compared to a filmed action sequence. Less data means less potential for exposing the trick or hoax. So in a still photo, we would look for flaws in the execution of the process, and one noted in the dinosaur example below is the shadow issue, explained better there. We would also look for lines of separation between the foreground and background objects.

With a filmed sequence, we have more data to analyze, and we would look for any vibration of the foreground miniature (like from a breeze) and see if there is any shift of foreground relative to background (the same clue we'd look for in a composite film image created by a traveling matte process). We would also study the staging of any action to see if background people or objects cross in front of the suspected miniature (which is pretending to be back in the picture more fully, and if so, other things could move in front of it). Knowing the camera must be locked down to one solid fixed position, we'd look for any camera movement. Seeing any would cause us to exclude the foreground miniature technique.

The Dinosaur - I wanted to show how large an Ultrasaurus was (at the time, believed to be in the Brachiosaurus family, so I used a Brachiosaurus), as part of a proposal to finance a dinosaur exhibition with full scale robotic dinosaurs. I didn't have a full scale Ultrasaurus, but the picture looks like I do. It's a trick photograph, based on the "Foreground Miniature" illusion process.



The illusion works because the miniature dinosaur is behind the light blue Volkswagen car and the tree growing out of the street curb grass, so it seems to be in the scene, not just in front of the scene. The trick is that the cars, the parking lot, and the tree on the curb are also miniatures, along with the dinosaur model.

Technology of the Illusion - Photographing through a standard camera produces a compression of the three dimensional world into a 2 dimensional image. Third dimension depth perception is lost in the process. Understanding how it is lost allows us to take advantage of this occurrence and produce an image that blends near and far, resulting in a false perception of distance and size. Under proper circumstances, something small and close cannot be distinguished from something large and farther away. But such an illusion has limitations of use. It requires a locked down camera, and the scene rigged to that exact camera position. It requires a great depth of field (the near and far limits of clear focus the lens will provide, so the small very near thing is as much in focus as the far and very large thing) and this great depth of field is achieved by a lens aperture setting near the end of it's F stop range, like F11, F16 or F22 (for most lenses). And it requires clear air (if outdoors), no haze or smoke in the air, because haze softens the far objects more than it does close objects, and thus creates separation we don't want. Finally, it requires an identical or matching light source shining on the foreground object and the background object.

Illusion Procedure - To accomplish this effect, we start by selecting the background and locking down the camera on a tripod for the chosen composition. Then we set the small foreground object on a secure platform or support device, where we can look through the camera and position the small foreground object, adjusting the position and distance from camera until we get a composition we like. In the dinosaur photo, the building is the actual background scene object, a real industrial shop in a business complex. The dinosaur, the parking lot, the two cars, and even two of the trees are all part of the miniature. The alignment is to make the far edge of the parking lot model align with the actual base of the distant building. As it is outdoors, the sun illuminates both foreground and background equally, which helps the effect.

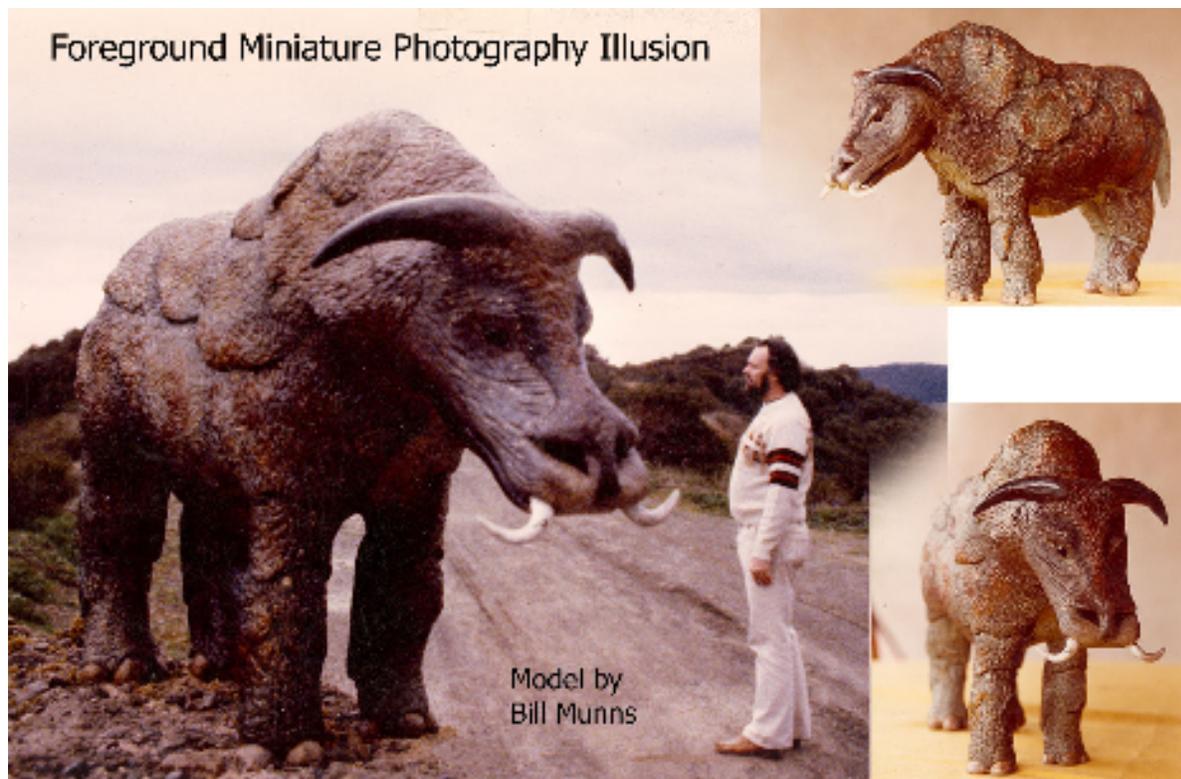
In this wider photo below, (the camera is the same position, but the lens was zoomed out a bit to show the rigging), you can see the parking lot is painted on a 3/4" sheet of plywood, and a plumbing flange and pipe bolted under it provide the secure attachment rigging to hold it securely. And below the plywood, you can see the actual street in front of the building.



How would we expose this photo as being an illusion of trick photography? We would study the shadows in this case, such as the shadow cast by the tree on the street curb, and we see the shadow goes away from camera, back toward the building. Similarly, the smallest tree on the far right (a real tree, not a miniature), in a planter close to the building, casts a shadow on the building. But the dinosaur does not cast a shadow on the building, proving it is not large and close to the building as it appears to be. We might also look for the exact dinosaur model (often sold in natural history and science museum gift shops) and thus identify the model and its true size. These would be acceptable methods for proof of illusion, in this case.

### Other Examples

The Photo composite immediately below is of a fanciful creature I designed for a project I hope to one day produce. The project took place on a fictitious world, and was populated by fictitious creatures. This was done many years ago, before CGI creatures were even imagined. The models I made are about 7-9" tall, but I needed to show what the intended full scale of the creatures would be in the story. So I used the foreground miniature technique to make a small model look like a full scale creature. Right shows the model on a table. Left is the trick photo.



The second example, below, has the sculpted creature model on the left, and a real full scale model on the right, simply as a comparison. The left model is 9 inches tall. The right model (the "Elephant Bird" *Aepyornia maximus*) is 9 feet tall.

Foreground Miniature vs True Full Scale Model  
(below) (Right)



No doubt some readers may wonder of the relevance of these examples. There are some claims about the PGF that costume illusions are employed to alter the apparent anatomical proportions of the figure seen in the PGF. Claims such as shoulder pads to raise the shoulders, and arm extensions to lengthen the arm, are particularly common.

These costume effects are indeed illusions, just like the above example illusions, and the costume illusions similarly have rules for how they are used effectively, and criteria for when they fail and can be exposed for the tricks they are.

So the methodology shown here, how to evaluate and expose an illusion, should likewise be applied to any claims by skeptical advocates that a suit or costume employs any devices or illusions to alter the apparent anatomical proportions of the PGF figure.

To prove a hoax, you must explain the hoax. Skeptical advocates frequently make the claim, but never offer the subsequent explanation. And that is why they have failed for 43 years to debunk the PGF Mystery.

Bill Munns April 8, 2011

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