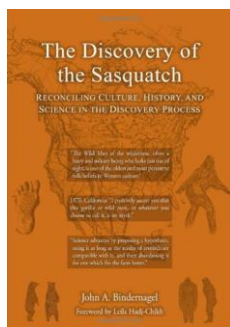


Book Review

The Discovery of the Sasquatch: Reconciling Culture, History, and Science in the Discovery Process. By John A. Bindernagel, PhD, Foreword by Leila Hadj-Chikh, PhD, Courtenay, B.C., Beachcomber Books, 2010. 352 pp. ISBN: 978-0-9682887-1-9. \$49 USD (softcover).



John Bindernagel's book *The Discovery of the Sasquatch* is less a book about sasquatch than it is a meticulously studied treatise on the nature of science – that is the nature of science in theory vs. the nature of science in practice – for they can be two different things. Science is, after all, conducted by people, interpreted by people, and reported by people. And in that capacity there is much room for error, sometimes intentional, but mostly unintentional.

Bindernagel quotes Geneticist Norton D. Zinder in Chapter VI, "The important part of a scientific discovery in almost any aspect of science is the reception it receives, and this is in large measure a social phenomenon not always based on scientific criteria." We see right from the outset that regardless of the rigors of the scientific method leading toward a new discovery, the process is beset with obstacles, pitfalls, and the vagaries of human social interaction involving biases, politics, job security, and jealousy, human weaknesses that can drive a wedge between compelling data and the reporting process or between the reporting process and acceptance of a hypothesis.

History is full of long delays in the final acceptance of a "new" discovery in the world

of zoology as Bindernagel documents with numerous examples. He uses the fairly recent discovery of the Okapi apparently depicted on the walls of temples in ancient Persia around 500 B.C. Later it was "rediscovered" in the 1800's, but misidentified first as a donkey, then a "forest zebra," finally recognized as a relative of the giraffe in 1901, when it was officially accepted by the scientific community. Before acceptance, speculations about the nature of the claims of a new species of large mammal abounded. Was it merely a tall tale, a hoax, a unicorn, a missing link to ancient animals long extinct, and "How could an animal this large go undetected for so long?" Sound familiar? Bindernagel uses one example after another of scientific discovery that are suspiciously parallel to the history of sasquatch research leading to the observation that this journey is not unique to the "sasquatch phenomenon," but instead a pattern often seen in the discovery of reclusive, rare, or otherwise 'cryptic' species.

He digs and prods at the history of delayed acceptance of the gorilla and the platypus to show that this pattern repeats itself and creates its own self-sustaining institution fed largely by fear of ridicule or the very human social tendency to not upset the apple cart. This institutional glitch by way of peer pressure, serves to discourage otherwise open-minded scientists from pursuing legitimate avenues of exploration within their own field of study.

Nor does Bindernagel limit his analysis of this problem within the discovery process of science to zoology. He points out that in medicine the blocks to scientific discovery follow the same pattern. He cites the notable neurologist and author Oliver Sacks who describes "several neurological phenomena which after having been discovered and described in the 1800's, were subsequently forgotten or ignored until they were rediscovered several decades or, in some cases, more than a century later." Examples include ailments such as Tourette's syndrome, alien limb syndrome, and geometrical spectra associated with migraine headache.

Such discoveries were well described then essentially forgotten and redescribed in a different time and finally accepted. Scientific research into the sasquatch question has been plagued by the same forgetfulness. Serious researchers are well aware of the reports, even close-up descriptions of limb length, body mass, facial similarities to apes, in the 1800s which have been all but forgotten today. Many believe this forgetfulness and often vehement resistance to research in this area to be unique to this species. Bindernagel says it is not. It is characteristic of the scientific process, and one that impedes and forestalls good science.

Once biased skepticism reaches higher levels of authority the wheels of progress slow down. Most scientists on the level of field discovery are respectful, often intimidated to some degree, by the recognized authorities in their orb of specialty. But these authorities are not immune to biased thinking. The authority of a few in high places in science tends to become the authority of the scientific community at large. Bindernagel quotes Galileo, "In science the authority of the opinion of a thousand is not worth as much as a spark of reason in one man".

He goes on to quote Carl Sagan, "Mistrust arguments from authority...Authorities must prove their contentions like everybody else."

We are all guilty of believing what the experts tell us is well established truth – universally accepted. In reading Bindernagel, I am reminded of the controversial biochemist Ernst Krebs who discovered some of the B vitamins. He believed that a good scientist is a practitioner of "corrosive thinking." That is all processes and facts should be periodically revisited no matter how well established to see if they still stand up to scrutiny in the light of potentially new alternatives, or to in fact see if they were initially derived from questionable opinions to begin with. Historian George Kitson Clark is quoted, "Science advances by proposing an hypothesis, using it as long as the results of research are compatible with it, and then abandoning it for one which fits the facts better."

Bindernagel systematically reviews the evidence from the cultural and oral histories of native North American tribes, sifting observational fact from myth and imagination, and ties these stories with documented historical accounts going back to as early as 1870. Next he looks at the history of science as it relates to the large bank of evidence, scrutinizing an abundant collection of track evidence, numerous sightings, and even movie camera footage, teasing out usable science from misidentification, hoax, and imagination to arrive at a place where one has to ponder why this subject has not become the most interesting area of exploratory endeavor to ever tantalize the field of zoology. Yet it has not.

In the end this book pierces the bubble of the hallowed ground of science and exposes the taboos and reticence of the scientific community to practice good science when it threatens the social and personal standing of the individual humans who comprise it. I did not suspect when I began reading this book that I would come away from it realizing that here is the key to understanding the greatest weakness of science.

On the table top of sasquatch research

Bindernagel reveals the chess game of science as it is played by its very human participants with all their foibles and traps that stagnant thinking and peer pressure can bring to bear.

As an examination of the philosophy and practice of science this book should be read by all scientists of every discipline. Even the non-scientist, or citizen scientist, who wishes to collaborate with the professional scientist, such as the amateur sasquatch investigator, who today collects the bulk of the evidence available, would benefit from Bindernagel's scholarly treatment of how science should work, why it works, and why it occasionally goes astray.

While employing examples of previous scientific discoveries Bindernagel successfully convinces the reader that except for the final phase of acceptance by the scientific community, sasquatch has already qualified as a viable candidate for an extant species. Said species must yet be determined by means of a specimen and the scrutinizing eye of science, but enough information already exists to reflect the existence of a primate that is unknown to science, this much has been discovered.

He cites a respectable collection of hair

from many locations which has been scientifically identified as from the same unknown animal, yet originating from many hundreds of miles apart. He cites the 1967 Patterson film, which has been laboriously studied by the most qualified film, biokinetics, and costume experts all concluding that the animal in the film is a real biological specimen – not a hoax. He cites hundreds of descriptions of an unknown primate which are not only consistent amongst themselves, but are completely congruent with tribal cultural descriptions going back to ancient times. He cites consistencies in the location of enumerable sightings within seasonal parameters of "good habitat" for a large omnivore. His case is clear. There is no question that this animal exists! Short of a formal scientific nomen and a type specimen the discovery of sasquatch is happening. It has been "discovered," but not yet collected. And only a handful of courageous scientists are willing to face ridicule in pursuit of the final objective.

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