

Matt Cartmill, Professor, Biological Anthropology & Anatomy

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Education:

- Ph.D., Univ. of Chicago, Chicago, IL, 1970
- M.A., Univ. of Chicago, Chicago, IL, 1966
- B.A., Pomona College, Claremont, CA, 1964



Research Interests:

My current laboratory research (with Lemelin and Schmitt) focuses on the analysis of mammalian gaits. We are engaged in testing the conjecture that the phase relationships between fore and hind limb cycles in quadrupeds can be explained and predicted as a mathematical function of the contact times of the fore or hind limbs. A paper setting out this theory and our experimental evidence for it is has been submitted for publication. Other papers concerning the peculiar gaits found in primates and arboreal marsupials are in preparation.

Dan Schmitt and I are also undertaking experimental research into the origins of human bipedalism. Known remains of the earliest bipedal human precursors exhibit two peculiarities not found in living apes or humans: an exaggerated distance between the two hip sockets, and an elongated lumbar segment of the vertebral column. We are studying human locomotion and modern and ancient hominoid skeletons to test the hypothesis that these features represent adaptations for enhancing stride length through pelvic rotation.

In addition to these experimental studies, I have recently published or begun working on books and articles about evolutionary psychology, animal consciousness, the probabilities of human origins, and other issues and concepts in the study of human evolution, including a textbook of hominid paleontology to be co-authored with Dr. Fred Smith at Northern Illinois University.

Representative Publications [\(More Publications\)](#)

1. Cartmill, M.. "New views on primate origins." 1992: 105-111.
2. Cartmill, M.. *A View to a Death in the Morning: Hunting and Nature Through History*. Harvard University Press, 1993a. xiv, 331 pp.
3. Cartmill, M.. "A critique of homology as a morphological concept." 1994: 115-123.

4. Cartmill, M.. "Oppressed by evolution." *Discover* (March, 1998): 78-83. (Excerpted in Duke Magazine (July-August, 2000), p. 5. Reprinted in L. Polnac (ed.), *Purpose, Pattern, and Process*, Kendall-Hunt Publ. Co., Dubuque, 5th edition (1999); 6th edition, 2002, pp. 389-397.)
5. Cartmill, M.. "The status of the race concept in physical anthropology." 1999: 651-660.
6. Cartmill, M.. "Understanding the evil that men do." *Chronicle of Higher Education* 2 (June, 2000): B4-B6.
7. Cartmill, M.. "Animal consciousness: some philosophical, methodological, and evolutionary problems." 2000: 835-846.
8. Cartmill, M.. "A view on the science: physical anthropology at the millennium." *American Journal of Physical Anthropology* 113 (2000): 145-149.
9. Cartmill, M.. "The probability of human origins." *When Worlds Converge: What Science and Religion Tell Us about the Story of the Universe and Our Place in It*. Ed. Matthews, C. N., Tucker, M. E., and Hefner, P.. Open Court, Chicago, 2001