

The bias of Quaternary geochronology toward the recent

Everything that is nearer seems more important and worthy of detailed attention. That's apparent in our geologic time scale: The Quaternary is the shortest period, the Cenozoic is the shortest era, and the Phanerozoic is the shortest eon.

That trend is magnified in the Quaternary, a period with just two epochs, the Pleistocene and the Holocene. The Holocene is only about half of one percent of the Quaternary, and the Pleistocene is

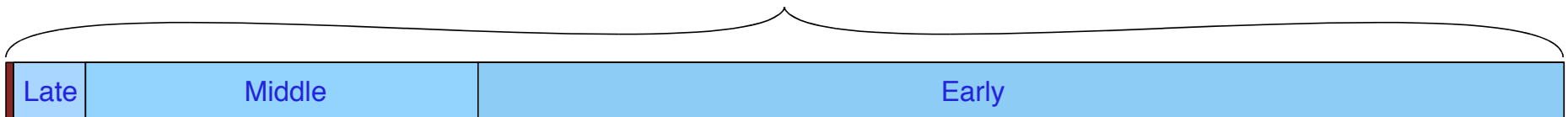
the other 99+ percent.

The same trend continues within the Pleistocene. The Late Pleistocene is not one third of the Pleistocene but only about 5% of the Pleistocene, and most of the Pleistocene is relegated to the distant Early Pleistocene.

The imbalance between Holocene and Pleistocene may seem outrageous, but it can be better understood in its historical context. The two terms arose in

the nineteenth century, before any means for absolute dating were available. It probably seemed reasonable that there was a modern post-glacial and a previous glacial era of roughly the same length. Surely the Pleistocene wasn't more than, say, four times the length of the Holocene. OK, surely no more than ten times as long. Decades and new dating technologies later, the Pleistocene turned out to be 220 times as long as the Holocene.

The Quaternary (2.588 myr)



The Pleistocene (99.55% of the Quaternary)

The Late Pleistocene (the last interglacial-to-glacial cycle)
(5.0% of the Pleistocene)

The Holocene (11.7 kyr)
(0.45% of the Quaternary)

The Holocene Epoch is 0.5% of the Quaternary Period;
The Quaternary Period is 4.0% of the Cenozoic Era;
The Cenozoic Era is 12.0% of the Phanerozoic Eon;
The Phanerozoic Eon is 11.8% of geologic time.