

Kurdistan Region – Iraq

Ministry of Higher Education & Scientific Research

Salahaddin University – Erbil

College of Science



Historical Geology

Geological Time scale

By

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Geological Time Scale

The geologic time scale is considered as the calendar of earth history. On the geologic time scale, the oldest events are found at the bottom and the youngest events are found at the top.

Geologists divided the Earth history into the following units: *eons*, *eras*, *periods*, and *epoch*. Compare the different life forms during each period as well as the evolution of life until the present day.

The most recent 13% of geologic time, from 538 million years ago to the present, is called the Phanerozoic Eon (phaneros is Greek for “evident”).



Eon	Era	Period	Epoch	Map Symbol	
Phanerozoic Eon	Cenozoic	Quaternary	Holocene	H	
			Pleistocene	Ple	
		Tertiary	Neogene	Pliocene	Pli
				Miocene	Mio
			Paleogene	Oligocene	Oli
		Eocene		Eo	
		Paleocene		Pal	
	Mesozoic	Cretaceous		K	
		Jurassic		J	
		Triassic		Tr	
	Paleozoic	Permian		P	
		Carboniferous	Pennsylvanian subperiod		C
			Mississippian subperiod		
		Devonian		D	
		Silurian		S	
		Ordovician		O	
		Cambrian		€	
	Proterozoic Eon =Precambrian				P€

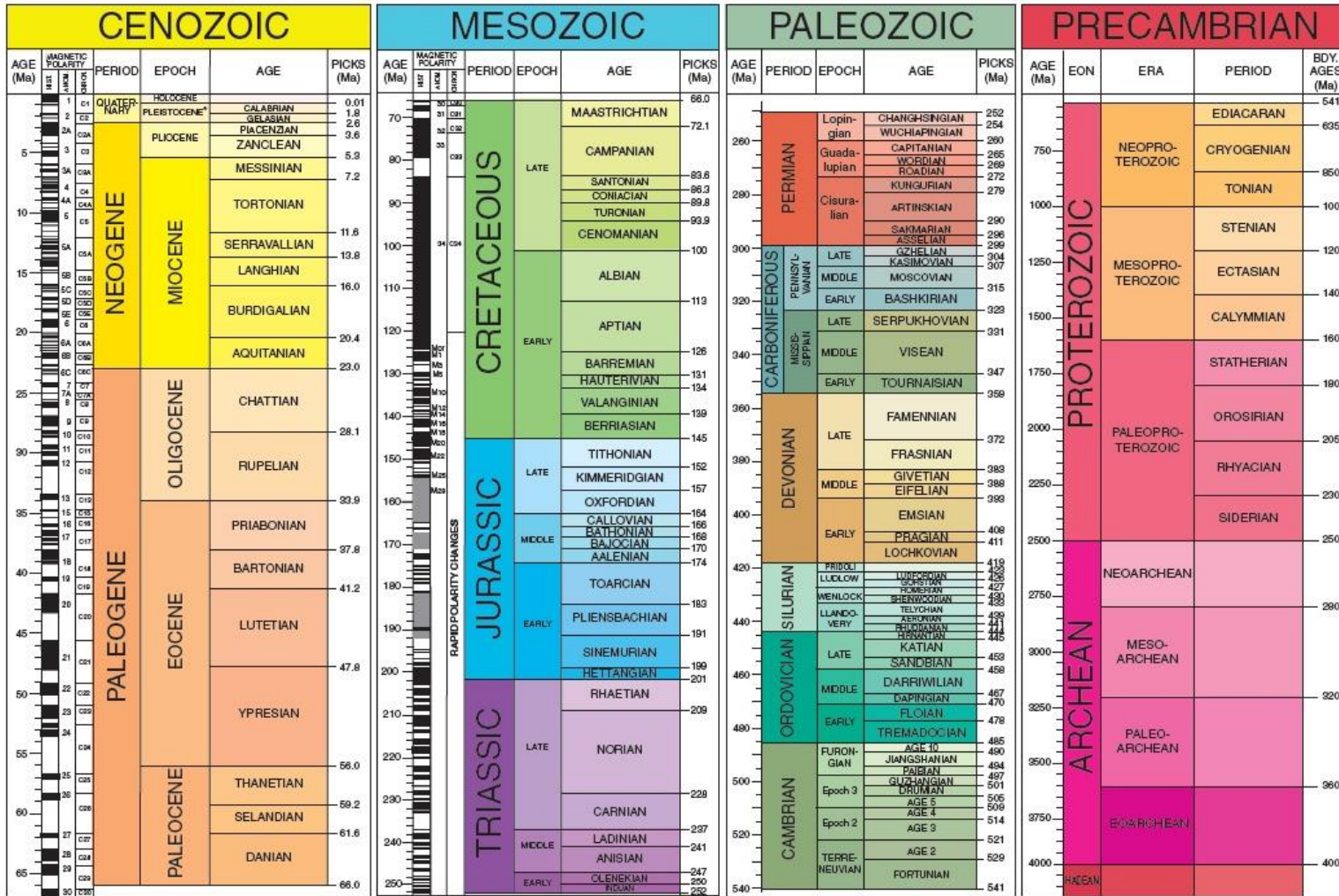
66 my

245 my

538 my

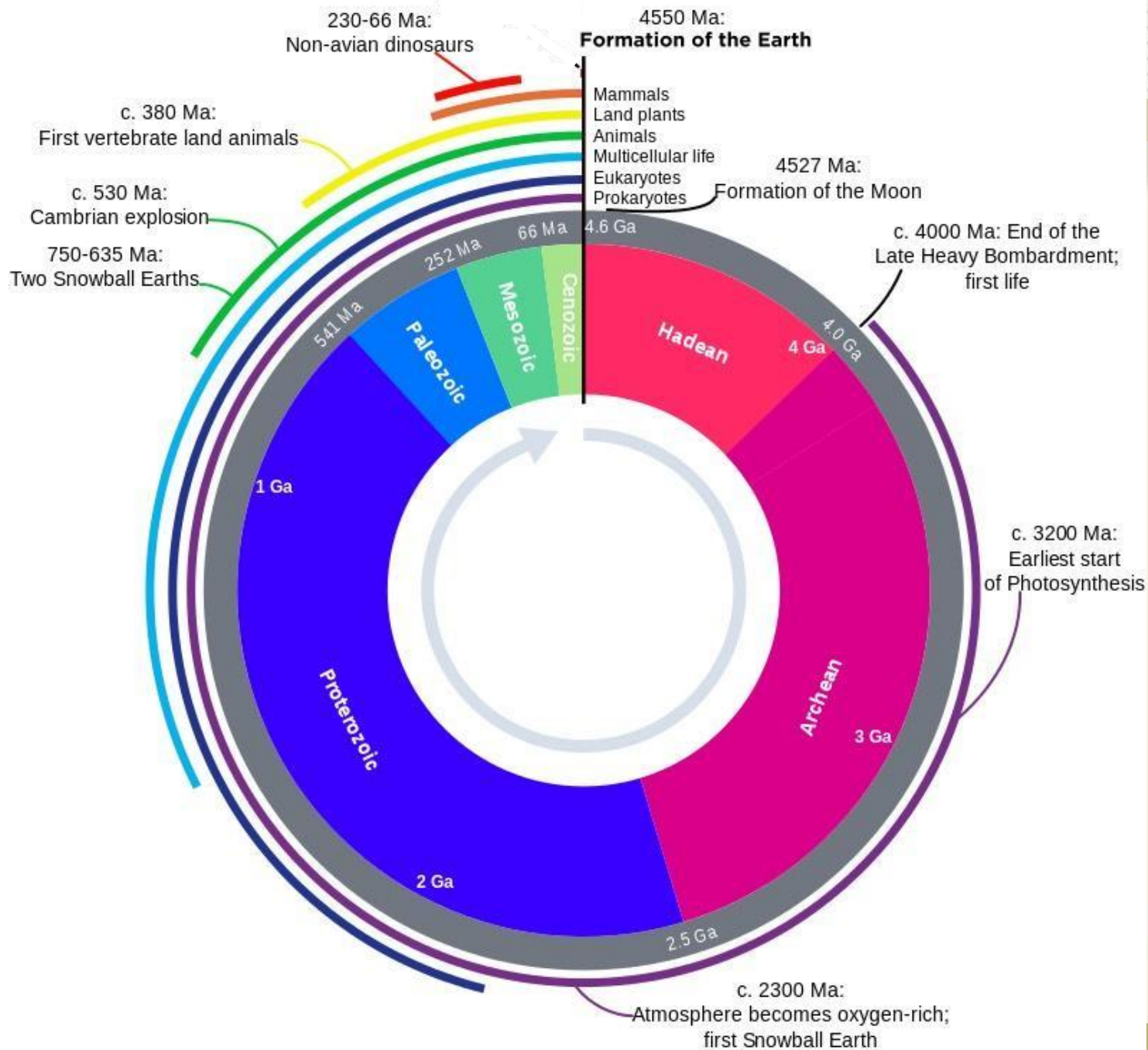


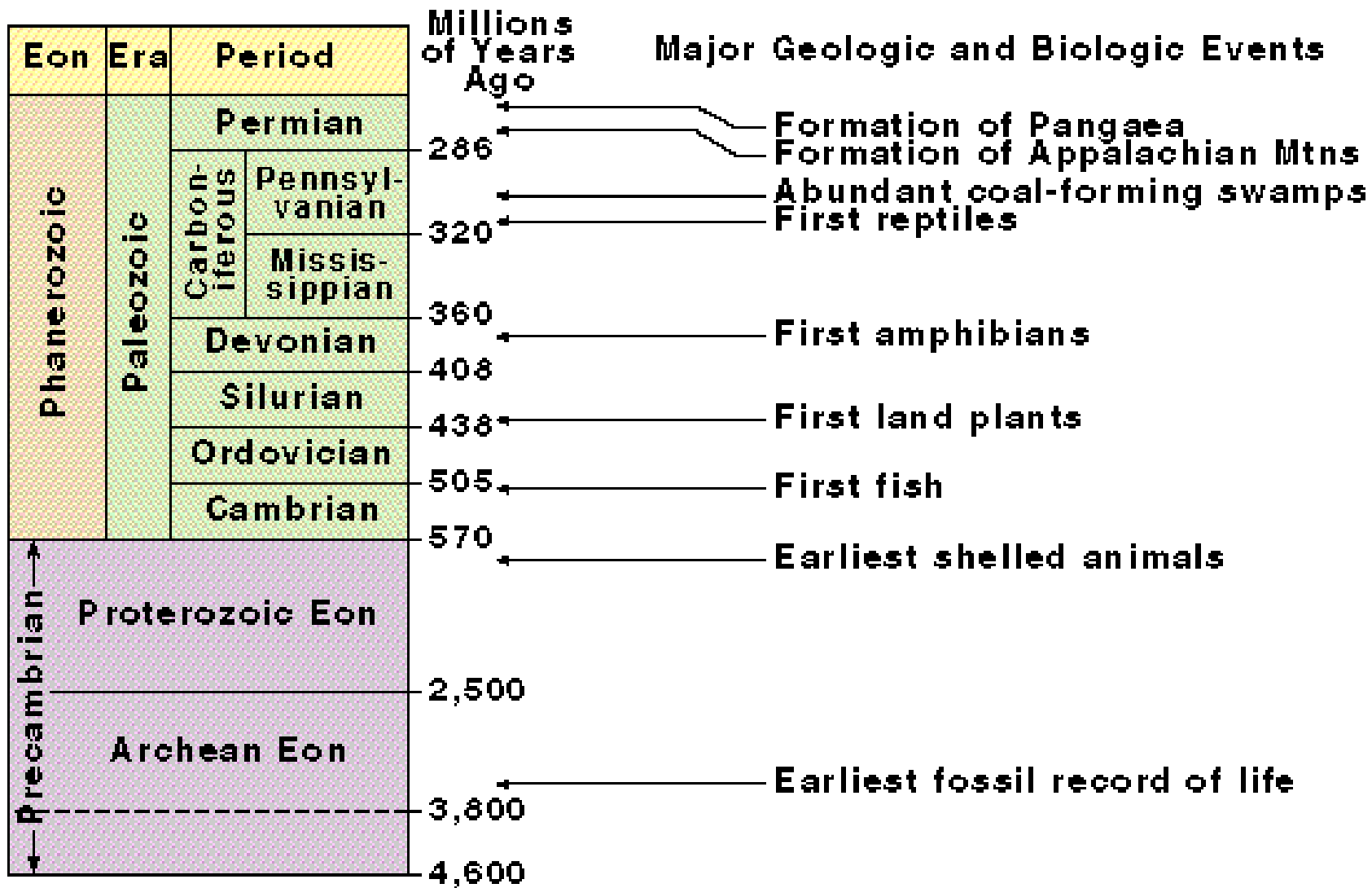
GSA GEOLOGIC TIME SCALE v. 4.0

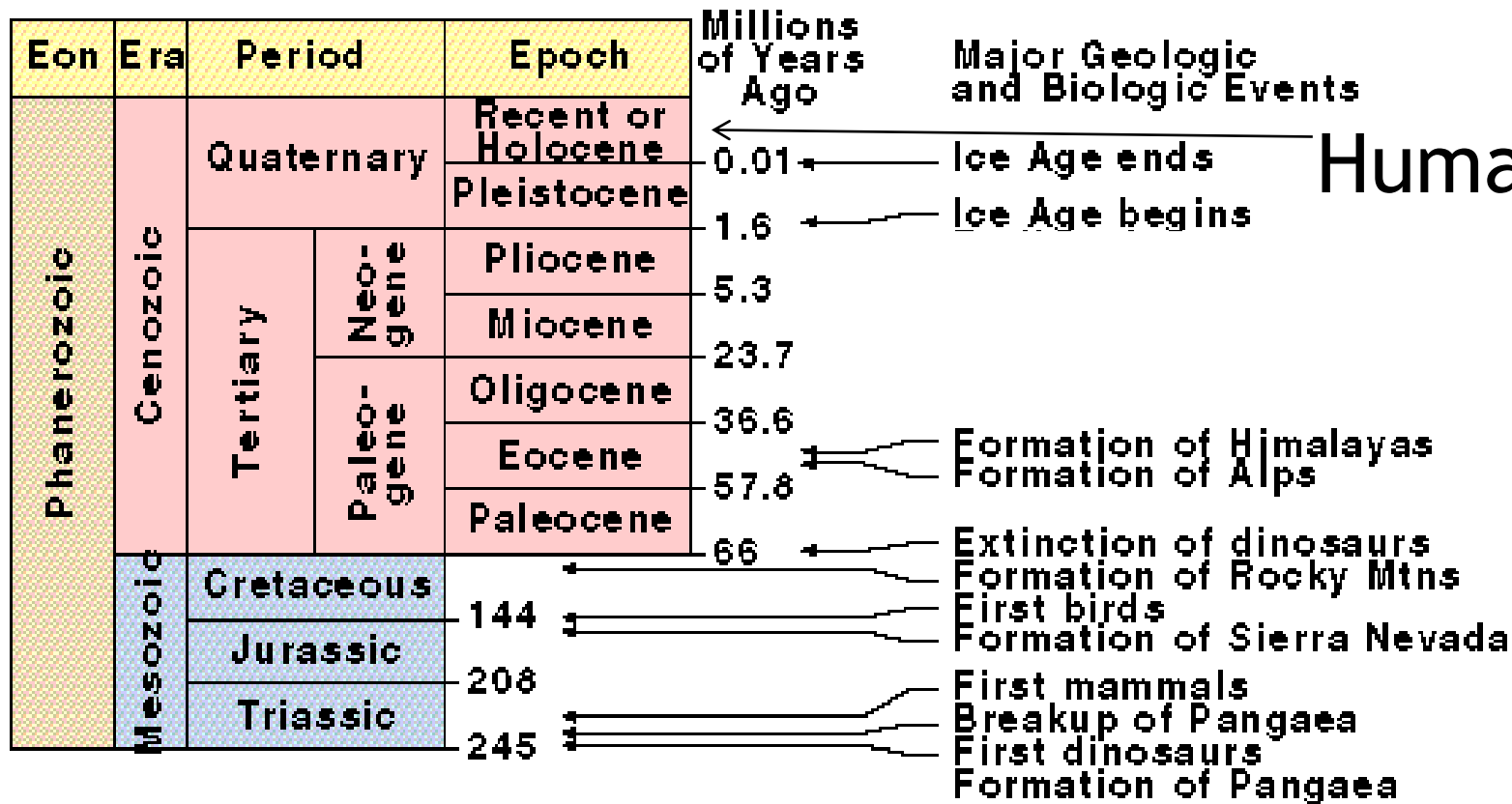


*The Pleistocene is divided into four ages, but only two are shown here. What is shown as Calabrian is actually three ages—Calabrian from 1.8 to 0.78 Ma, Middle from 0.78 to 0.13 Ma, and Late from 0.13 to 0.01 Ma. Walker, J.D., Gaisman, J.W., Bowring, S.A., and Babcock, L.E., compilers, 2012, Geologic Time Scale v. 4.0: Geological Society of America, doi:10.1130/2012.GT8004R3C. ©2012 The Geological Society of America. The Cenozoic, Mesozoic, and Paleozoic are the Eras of the Phanerozoic Eon. Names of units and age boundaries follow the Gradstein et al. (2012) and Cohen et al. (2012) compilations. Age estimates and picks of boundaries are rounded to the nearest whole number (1 Ma) for the pre-Cenomanian, and rounded to one decimal place (100 ka) for the Cenomanian to Pleistocene interval. The numbered epochs and ages of the Cambrian are provisional. REFERENCES CITED Cohen, K.M., Finney, S., and Gibbard, P.L., 2012, International Chronostratigraphic Chart: International Commission on Stratigraphy, www.stratigraphy.org (last accessed May 2012). (Chart reproduced for the 34th International Geological Congress, Brisbane, Australia, 5–10 August 2012.) Gradstein, F.M., Ogg, J.G., Schmitz, M.D., et al., 2012, The Geologic Time Scale 2012: Boston, USA, Elsevier, DOI: 10.1016/B978-0-444-59425-9.00004-4.



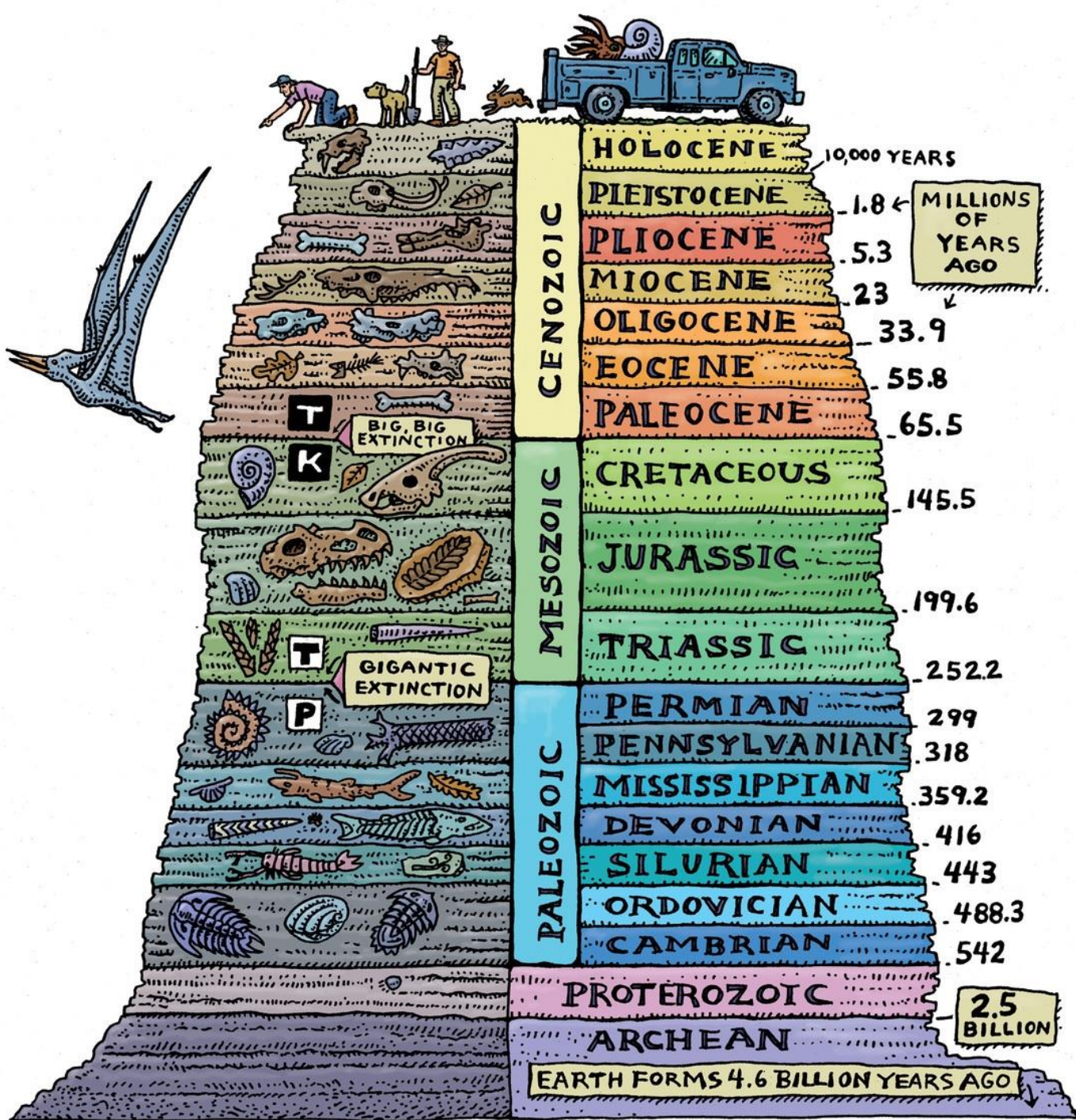






Human





THANKS

