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Phanerozoic cycles of sedimentary carbon and sulfur

(isotopes/sediment cycles/natural oxygen reservoirs)

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COUPLING OF THE SEDIMENTARY SULFUR AND CARBON CYCLES — AN IMPROVED MODEL

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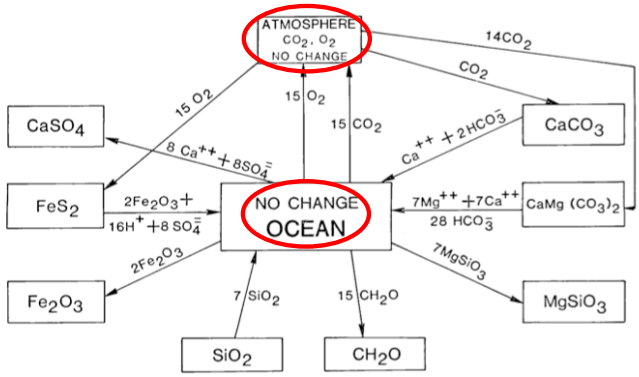


Fig. 1. Coupled changes in sedimentary reservoirs necessary to increase the gypsum ($CaSO_4$) reservoir by 8 molecular units, without changing the composition of the atmosphere-ocean system (adapted from Garrels and Perry, 1974 and Garrels and Lerman, 1981).

Garrels and Lerman, 1981

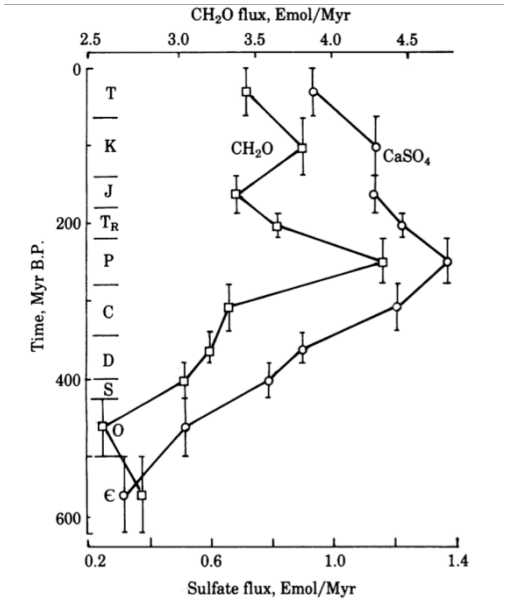
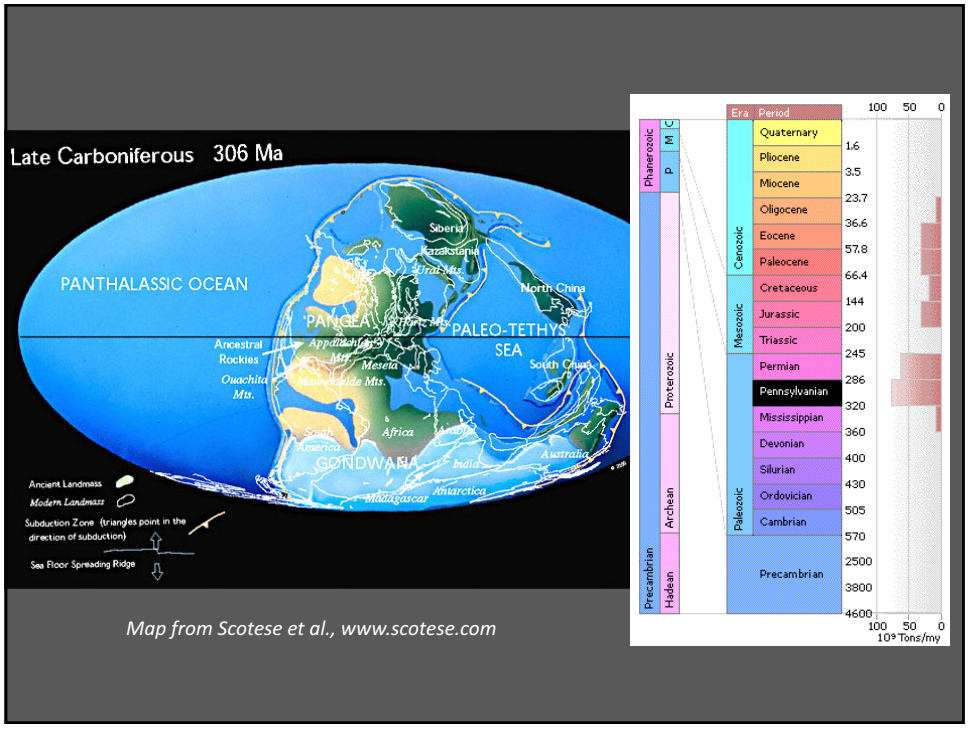
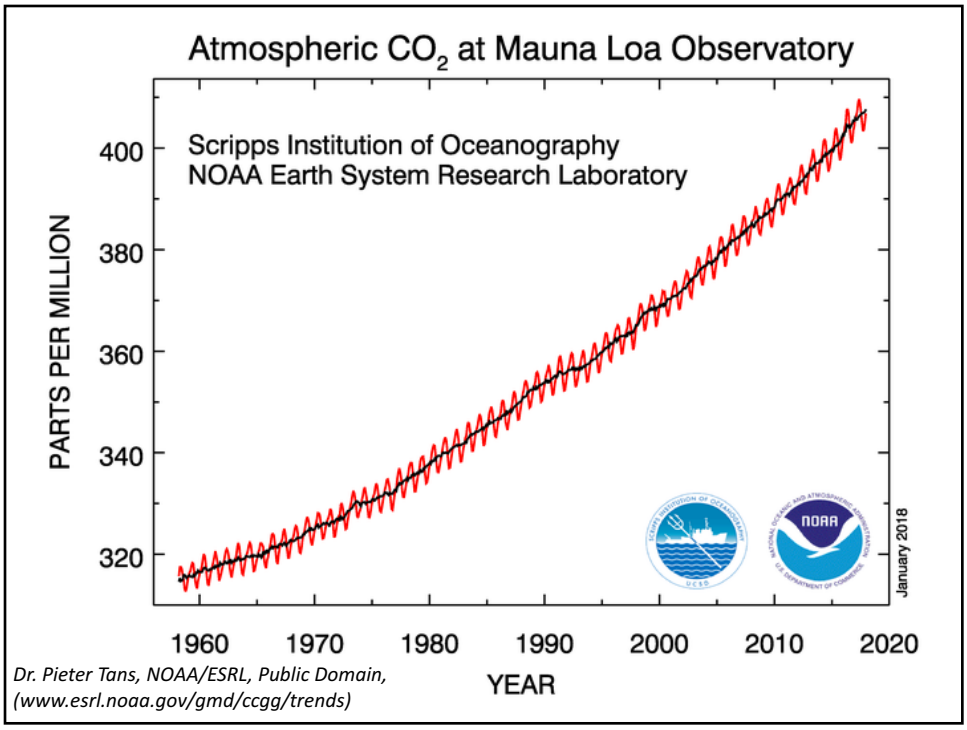


FIG. 6. Variations in the organic carbon and sulfate fluxes from the ocean to sedimentary reservoirs (F_{45} and F_{32}) as functions of age. Carbon fluxes were computed from Period mean values of $\delta^{13}C$; sulfate fluxes were computed from the model.



Map from Scotese et al., www.scotese.com



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