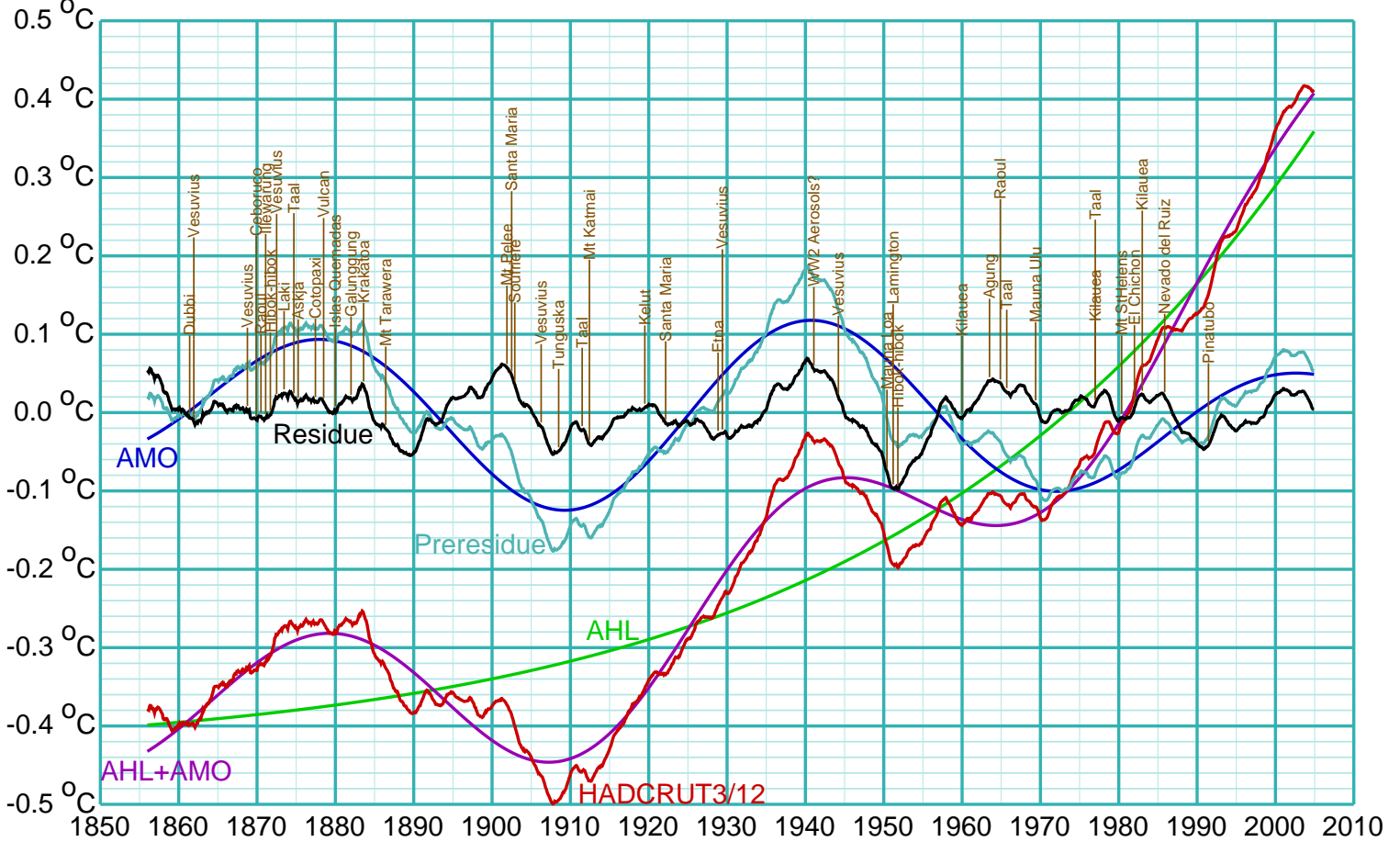


AN ELEMENTARY MODEL OF MULTIDECADAL CLIMATE CHANGE: 1850-2010



HADCRUT3/12: global temperature, 1850-2011, unadjusted, smoothed to 12-year moving average

AHL(y): Arrhenius-Hofmann Law, $1.837 \ln(280 + 2^{(y - 1790)/32.5})$

Preresidue = HADCRUT3/12 - AHL. $r^2 = 0.870$

AMO(y): Atlantic Multidecadal Oscillation correlate, $0.0660 (\sin(2 (y - 1925)/56) + \sin(2 (y - 1925)/75))$

Residue = Preresidue - AMO. $r^2 = 0.9823$

Elementary model of HADCRUT3 for 1850-2011, as a function of year y:

$$1.837 \ln(280 + 2^{(y - 1790)/32.5}) + 0.0660 (\sin(2 (y - 1925)/56) + \sin(2 (y - 1925)/75))$$