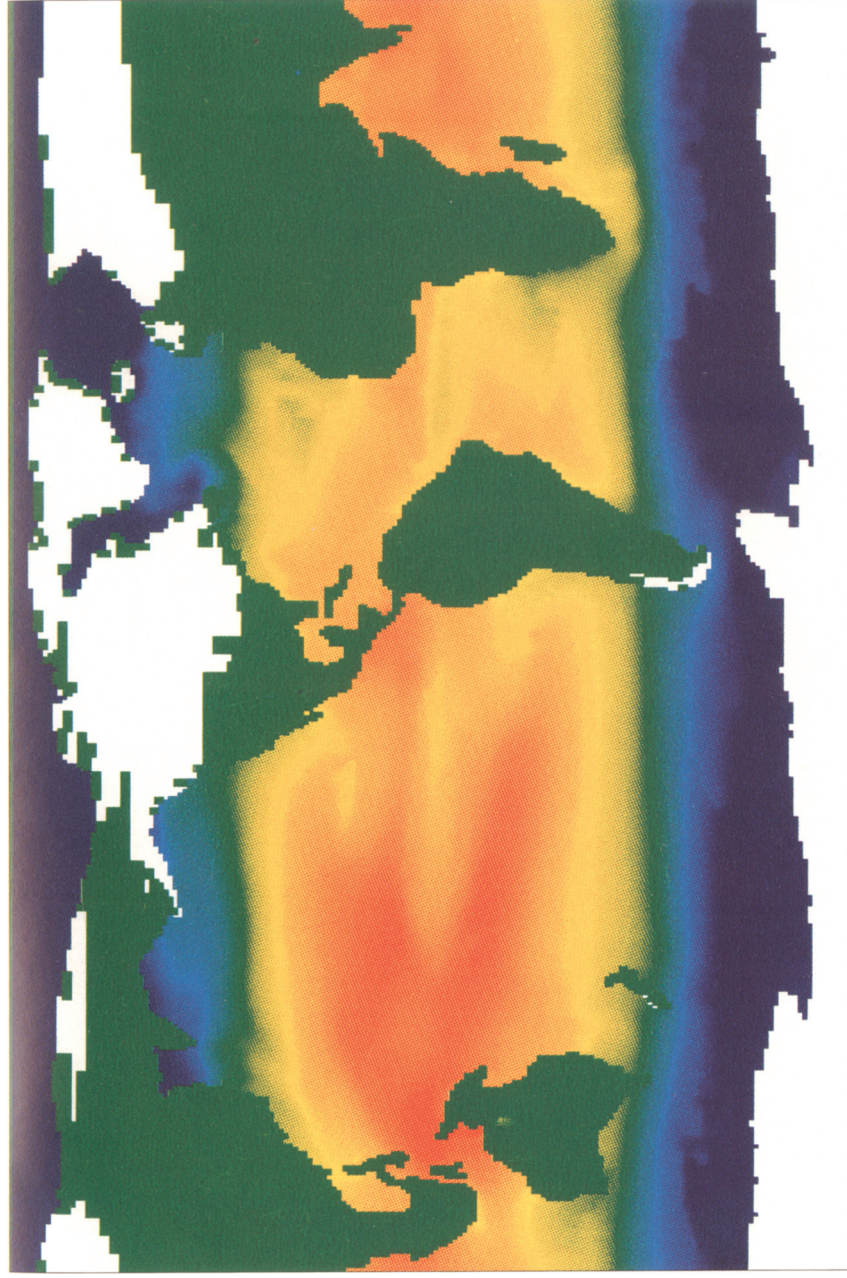


Figure 1.1 Surface temperatures of the oceans at the Last Glacial Maximum (~20 000 years Before Present) determined using an ocean General Circulation Model. Dark blue denotes water temperatures less than 1 °C and red more than 26 °C. The green areas are ice-free land and the white areas are ice-sheets. Sea level was lowered by ~120 m, exposing present continental shelf as land (Bigg *et al.*, 1998).



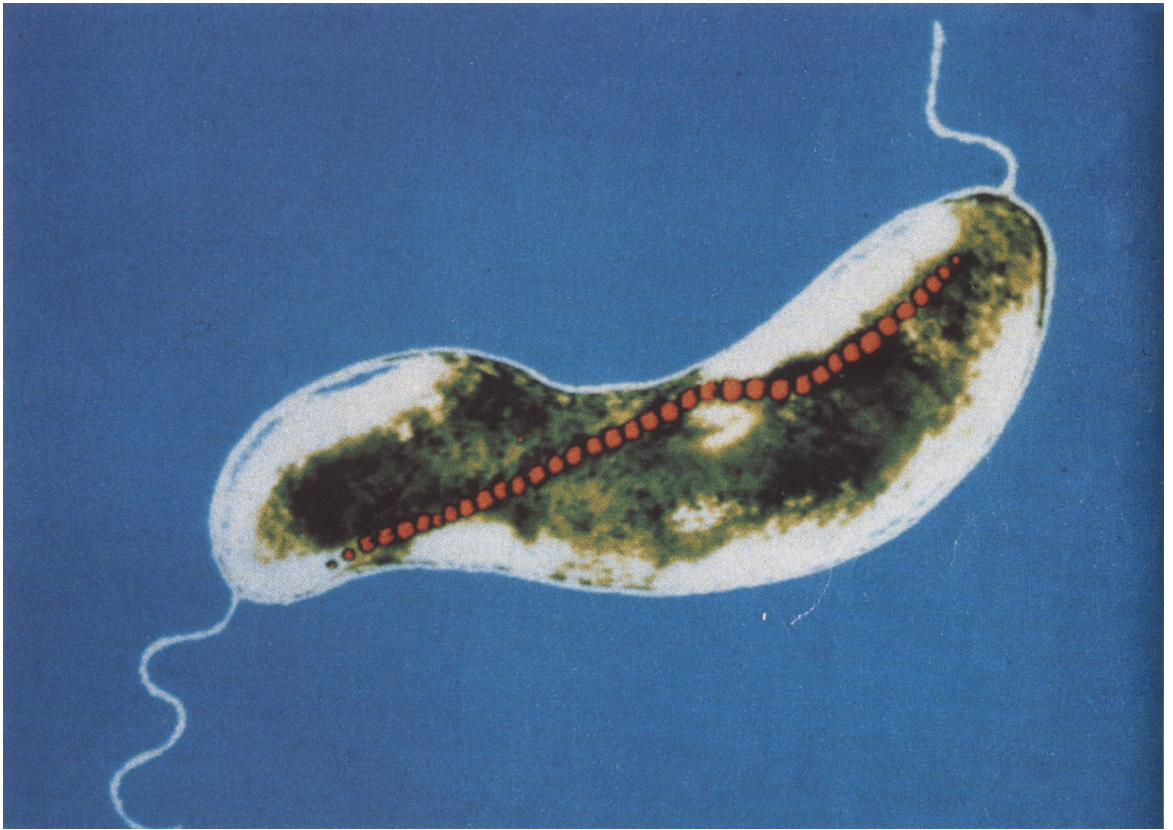
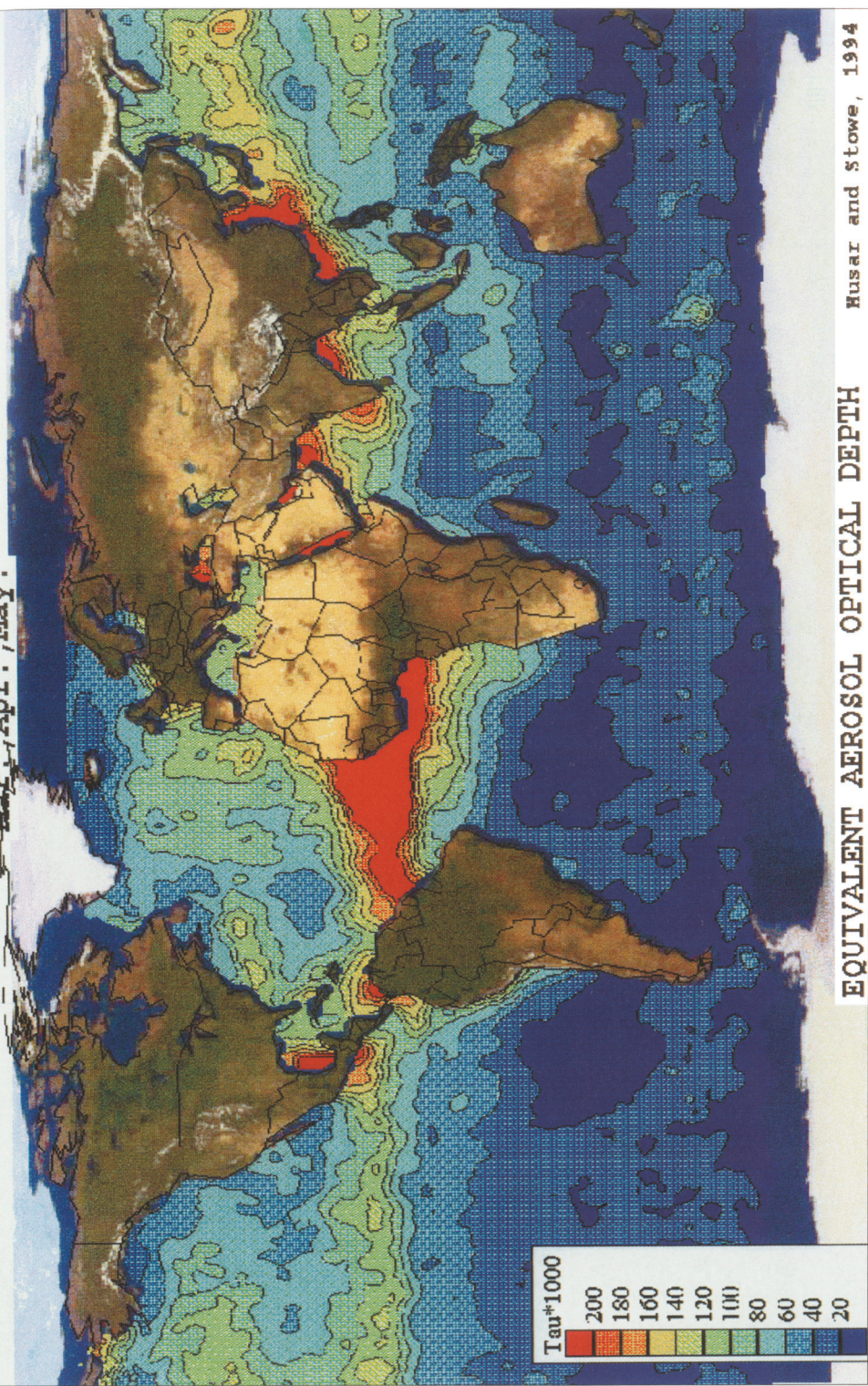


Plate 1.8 False colour scanning electron micrograph of a magnetotactic bacterium and its intracellular chain of magnetite crystals. (Photo: H. Vali, reproduced with permission from *Nature*, 343, p. 213, Copyright 1990, MacMillan Magazines Limited.)

Figure 3.3(a–d) (*following four pages*) Remotely sensed dust haze through the four seasons (from Husar, R. B., Prospero, J. M. & Stowe, L. L., *Journal of Geophysical Research*, 102, 16889–909, (1997), copyright by the American Geophysical Union.

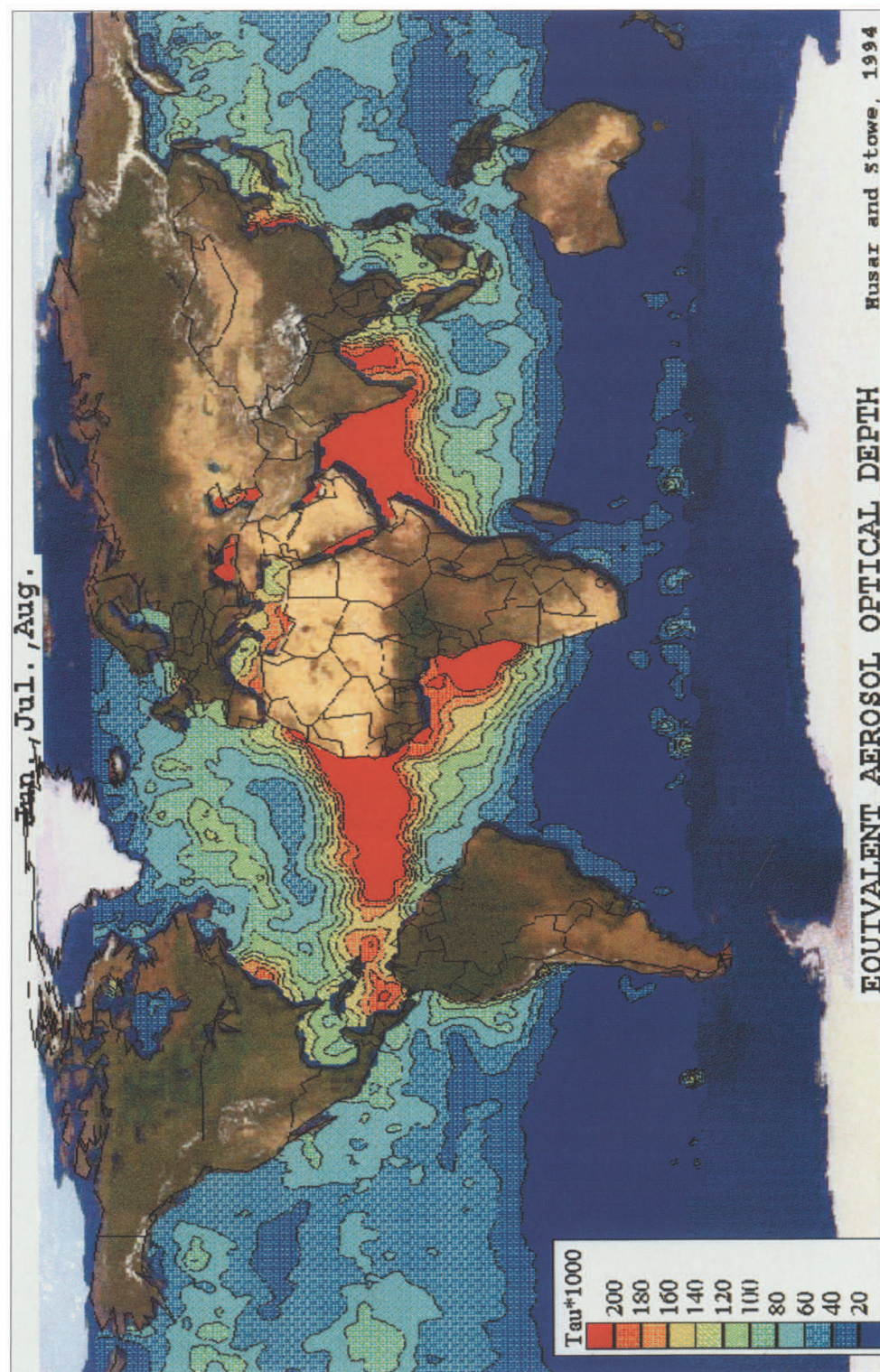
Mar., Apr., May.

(a)



(b)

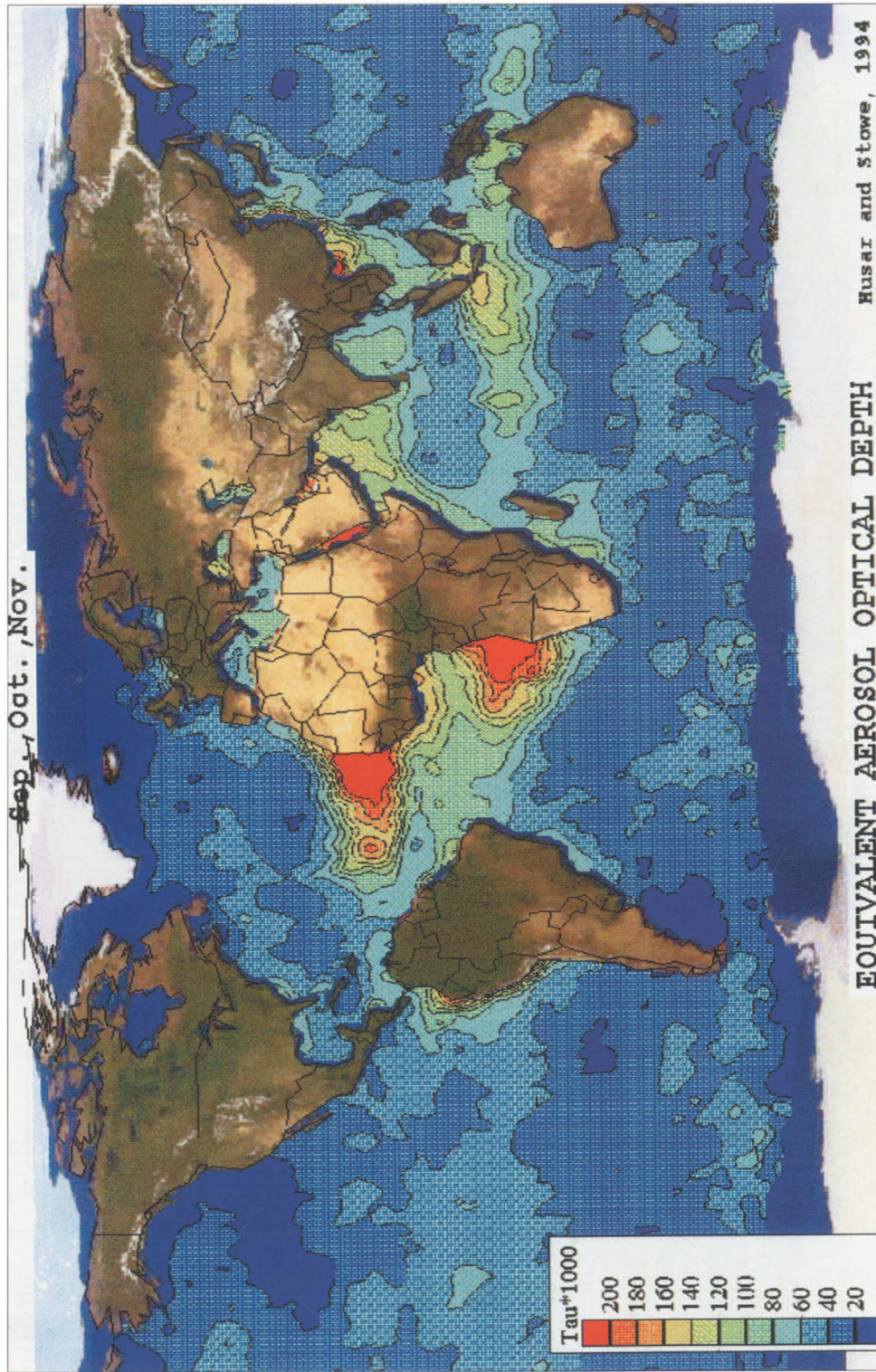
Jan., Jul., Aug.



EQUIVALENT AEROSOL OPTICAL DEPTH

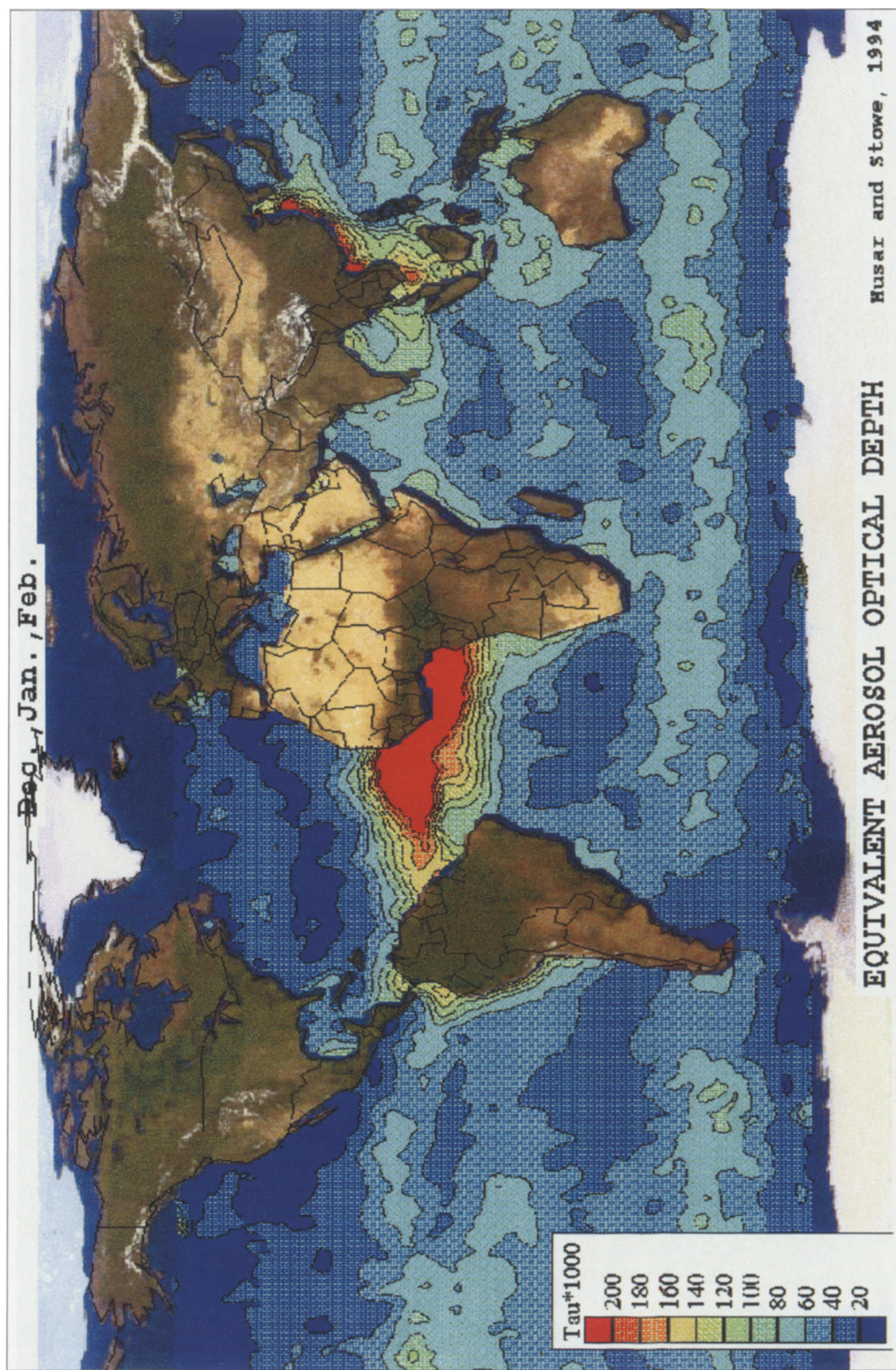
Husar and Stowe, 1994

Sep., Oct., Nov.



(c)

(d)



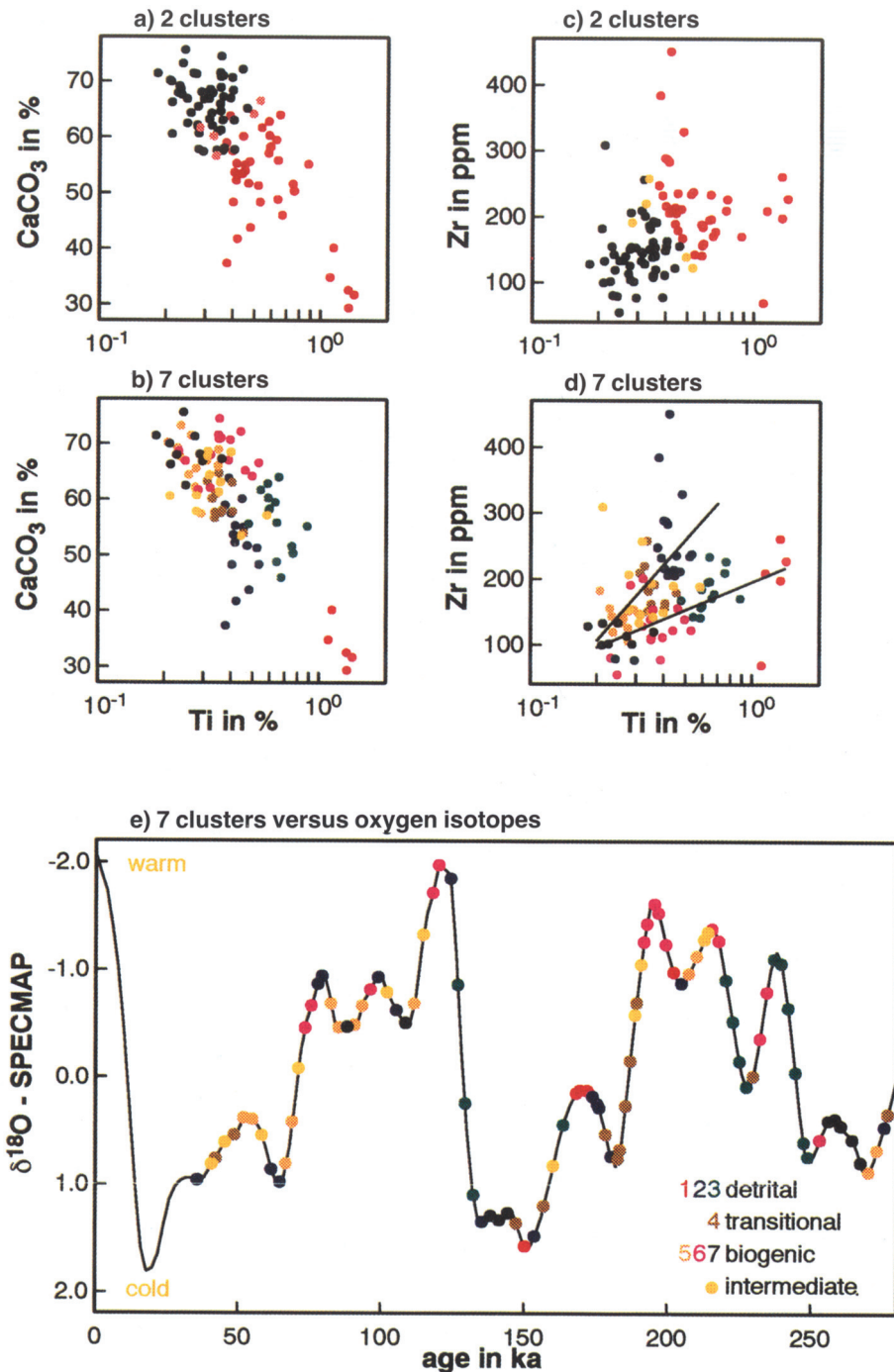


Figure 10.8 Relationships between Ti and carbonate content in the two cluster model (a) and the seven cluster model (b), and between Ti and Zr (c,d). In the two cluster model, there is a biogenic (black) versus a detrital grouping (red) with some intermediate cases (yellow). In the seven cluster model, the biogenic and detrital clusters subdivide into two lines of clusters with a different Ti–Zr relation, interpreted as reflecting different source areas of detrital input. If the seven clusters are plotted versus SPECMAP (Imbrie *et al.*, 1984), some consistent relations appear. For instance, it appears that detrital, cluster 3 samples typically occur during rapid warming, reflecting increased detrital input following melting of ice-sheets. Other relations are discussed in the text (After Kruiver *et al.*, 1998)



Figure 10.9 Above: the Trubi marls at Punta di Maiata (Sicily). Precession is represented by carbonate quadruplets of grey marls (insolation maxima) and white-beige-white marls (insolation minima). Minima in eccentricity are characterized by increased carbonate content, visible as indurated white layers. (Photo: courtesy of Jaume Dinarès Turell). Below: alternation of lignites with marls represent precession in the Ptolemais basin (NW Greece), where the marls correlate to insolation maxima, and thus with the grey marls of the Trubi (Photo: courtesy of Joris Steenbrink).