



Figures

2.1 Public clocks were one of the technologies used for distributing synchronized time. They also symbolized, for the surrounding society, values of precision connected with science in general and astronomy in particular. This clock, at the gates of the Lund Observatory, was set up by Carl Charlier and synchronized by radio time signals from the Eiffel Tower and a transmitter at Norddeich, Germany. The citizens of Lund called it “rättaste klockan i Lund” (the most accurate clock in Lund).

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3.1 The Planetary Boundaries Diagram as a synchronizing device. The diagram summarizes the idea that the earth system has inbuilt boundaries, which must not be transgressed. The inner circle shows the safe operating space for nine planetary systems, while the darker wedges show estimated current positions for each variable. Although there are no numbers in the diagram, eight of the nine boundaries have been assigned a digit, for example 350 ppm for atmospheric CO₂. With rates and directions of change of the nine systems known, the diagram could also be read as a perpendicular “clock,” synchronizing human-earth relationships in one single chart. The chart would then show how soon a boundary is likely to be reached. Or, for those earth system indicators where boundaries have already been transgressed, how soon the system can be brought within limits again, if effective environmental governance is provided.

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