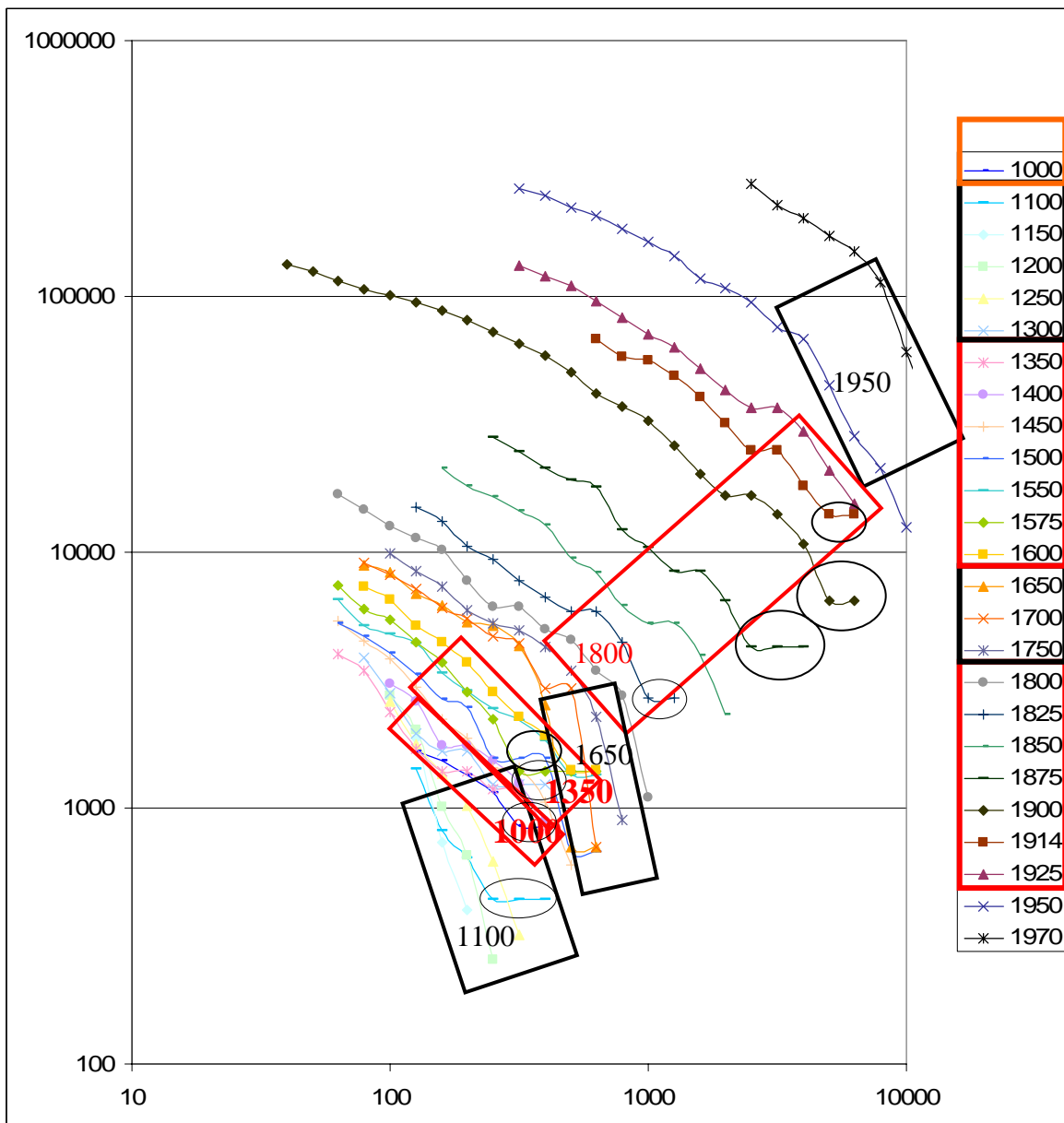
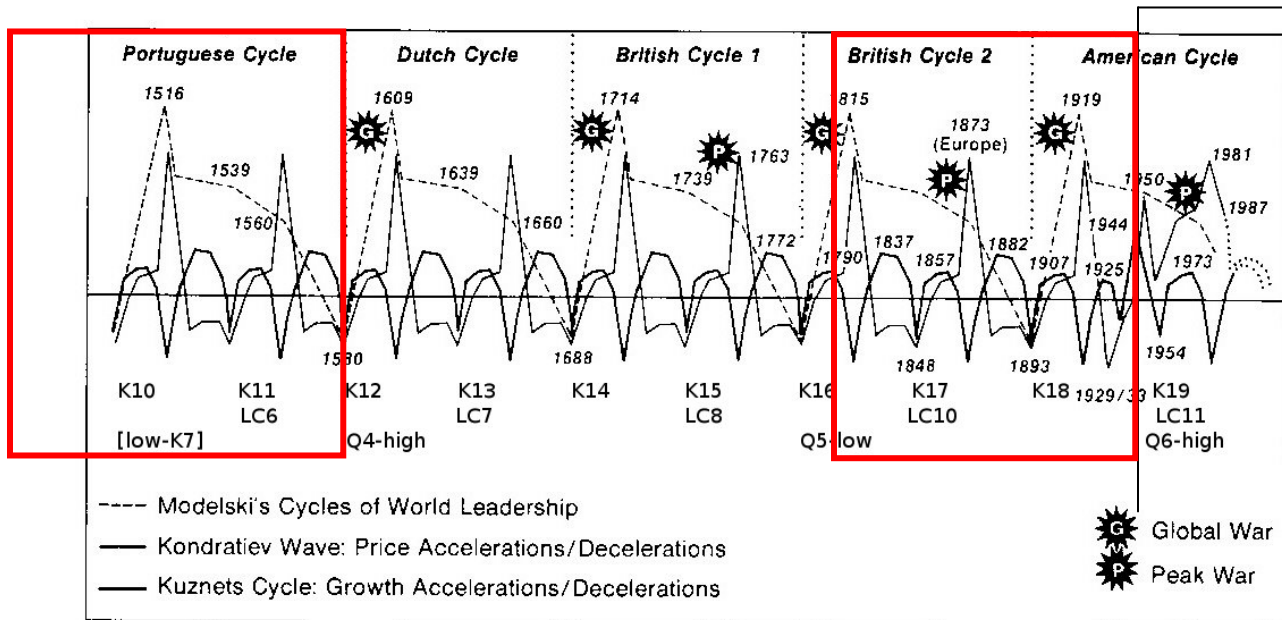


Over the last millennium (1000-2000) the slope of the upper tails of city size distributions has oscillated six times between **hierarchical, flat slopes with many graduated hubs (in red)** and overall more egalitarian distributions with fewer hubs but more extreme hubs (in black). Sometimes the former also have a second upper tail with more extreme hubs that represent primate cities. The **red** distributions occur in periods of disruptive world conflicts. The figure below shows the number of people (in 1000s) on the y axis in world cities at or above the city sizes (in 1000s) on the x axis. The cities included are of increasing sizes over successive periods, but if we included all cities over 100K in recent times and projected these curves, we would have billions of people on the Y axis. The curves tend to be power-law (straight lines in a log-log scale) in the upper sizes but flatten to more ordinary distributions as the numbers in cities grow smaller, i.e., the curves bend down and to the left for each period.



The long periods of oscillation between these city size periods are coordinated with shorter oscillations in leading sectors of economic innovation, with leading nations, and with global wars, some of which disrupt land routes for trade and others of which stabilize trade.



**Figure 82. World-Leadership Cycles and the Kondratiev/Kuznets Rhythms**

Figure 4: A schematic modified from Berry (1991:161) to show the nesting of cycles for construction and labor migration (Kuznets), inflationary (Kondratieff), world political leadership (Modelski), and city-size distributions (Q). Schumpeterian K-waves are not shown but operate at the time-scale of Kuznets cycles.

