Cellular Automata (1): General & Overview Papers


Couclelis, Helen. 1985. Cellular worlds: a framework for modelling micro-macro dynamics. Environment and Planning A 17: 585-96. Quite possibly the earliest paper on CA in the geography literature. You will see it cited a lot as part of the history of the field, so here it is.

———. 1987. Of mice and men: what rodent populations can teach us about complex spatial dynamics. Environment and Planning A 20: 99-109. Another early and widely cited paper on CA. I believe the points it makes are still valid. It was great fun to write and I hope it's fun to read!

Horgan, John. 1995. From complexity to perplexity: can science achieve a unified theory of complex systems? Scientific American, June: 104-9. Don't buy all that hype about complexity. Is this all an over-inflated shiny bubble about to burst?... Not specifically about CA but about the whole 'paradigm' that gave us CA.


Wolfram, Stephen. 1984. Cellular automata as models of complexity. Nature 311, no. 4: 419-24. By the Wunderkind of cellular automata research, an article summarizing his work on CA as complex dynamic systems. Goes over some of the material we discussed last Monday (automata, languages and computation).