

# Growing Neural Cellular Automata

2020

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# Classic Cellular Automata



John Von Neumann

Stanisław Ulam



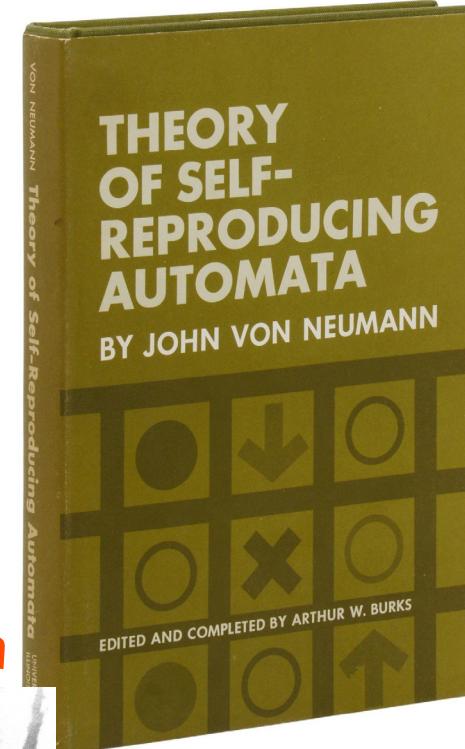
# Classic Cellular Automata



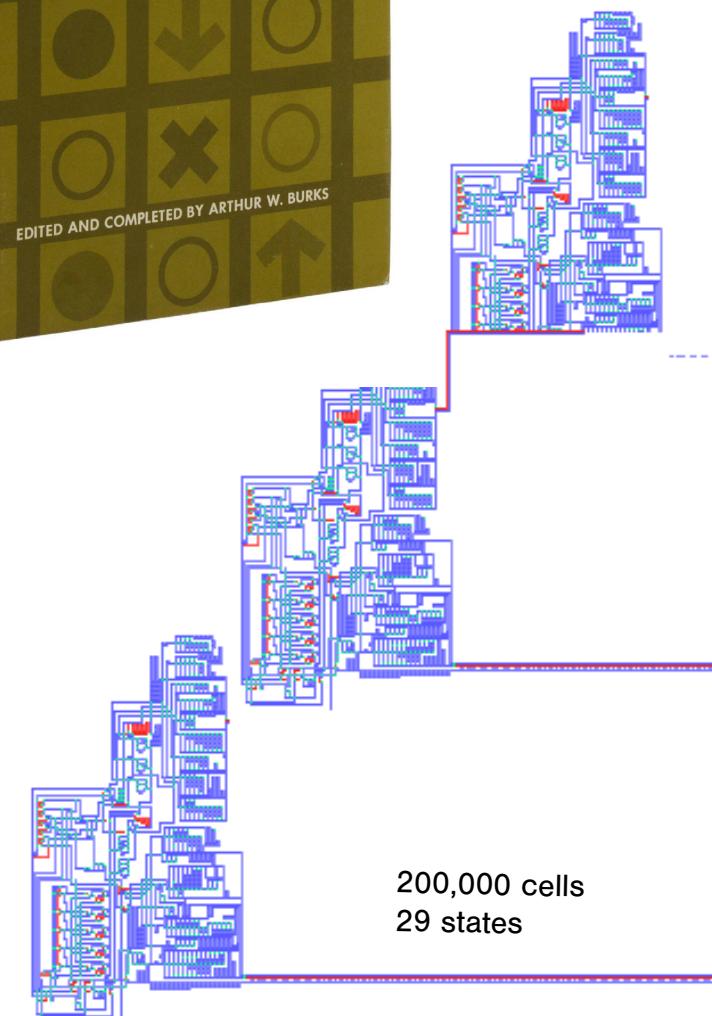
John Von Neumann



Stanisław Ulam

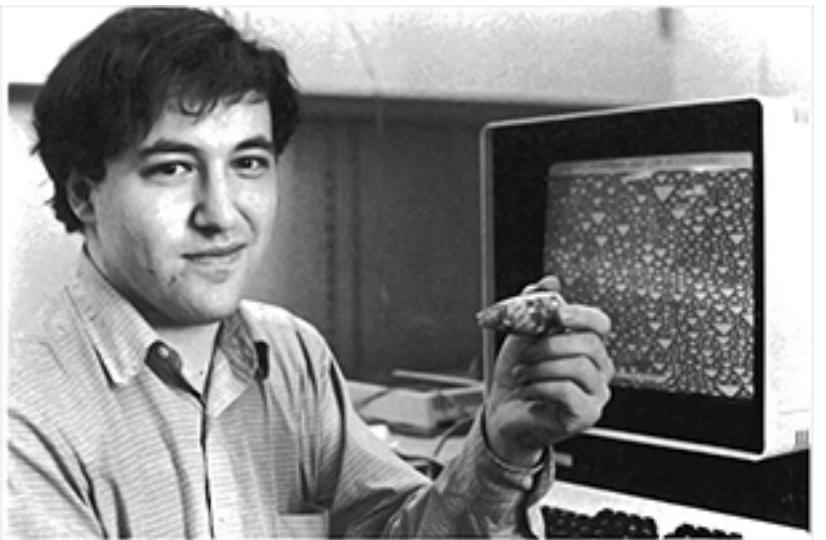


1940s



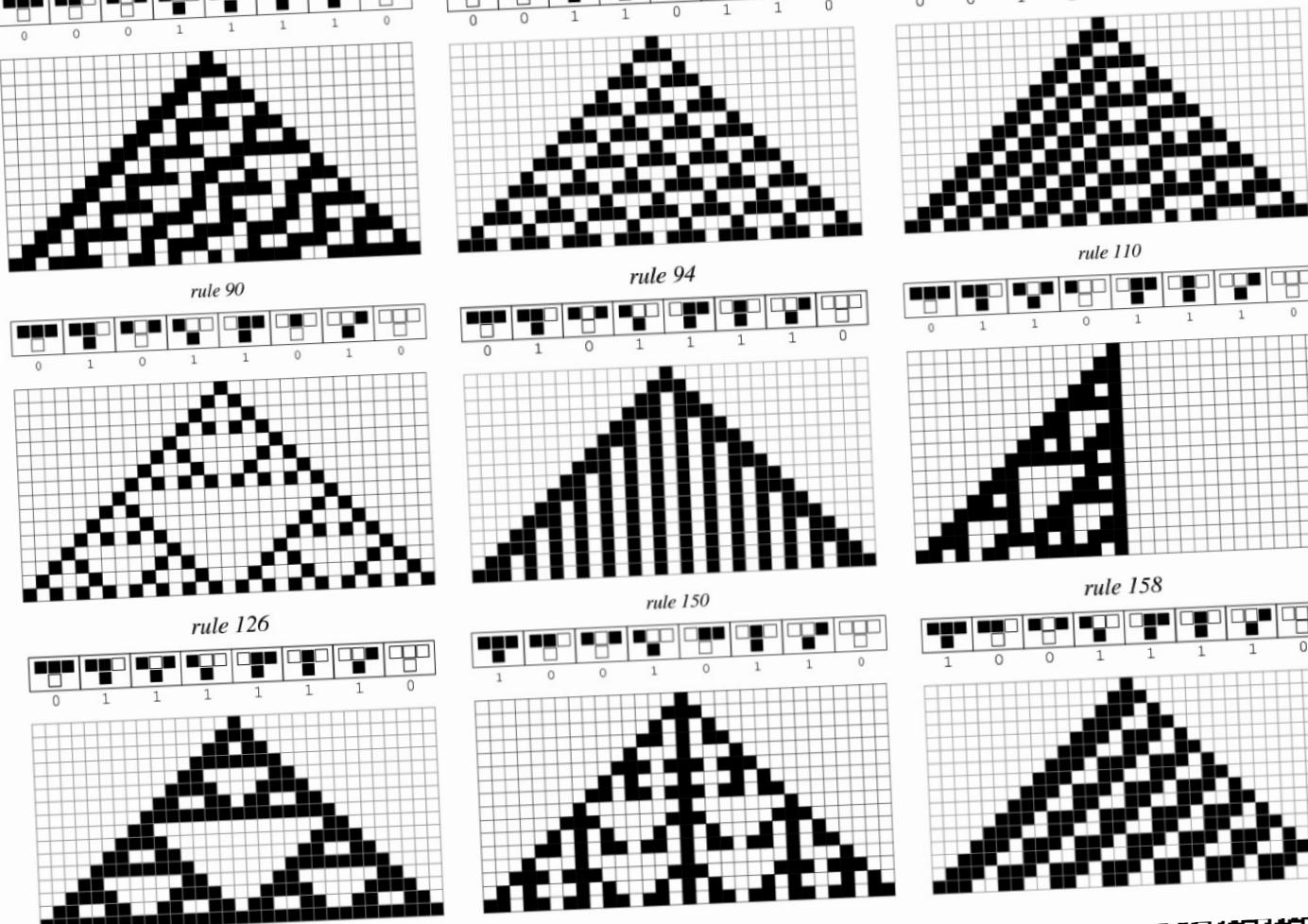
200,000 cells  
29 states

# Classic Cellular Automata



Stephen  
Wolfram

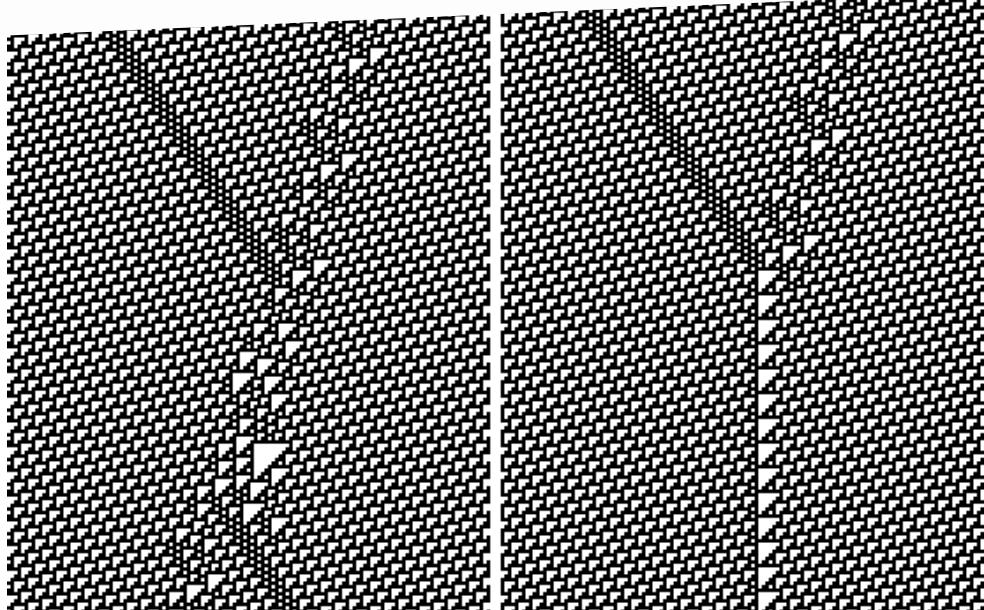
1980s



WolframAlpha

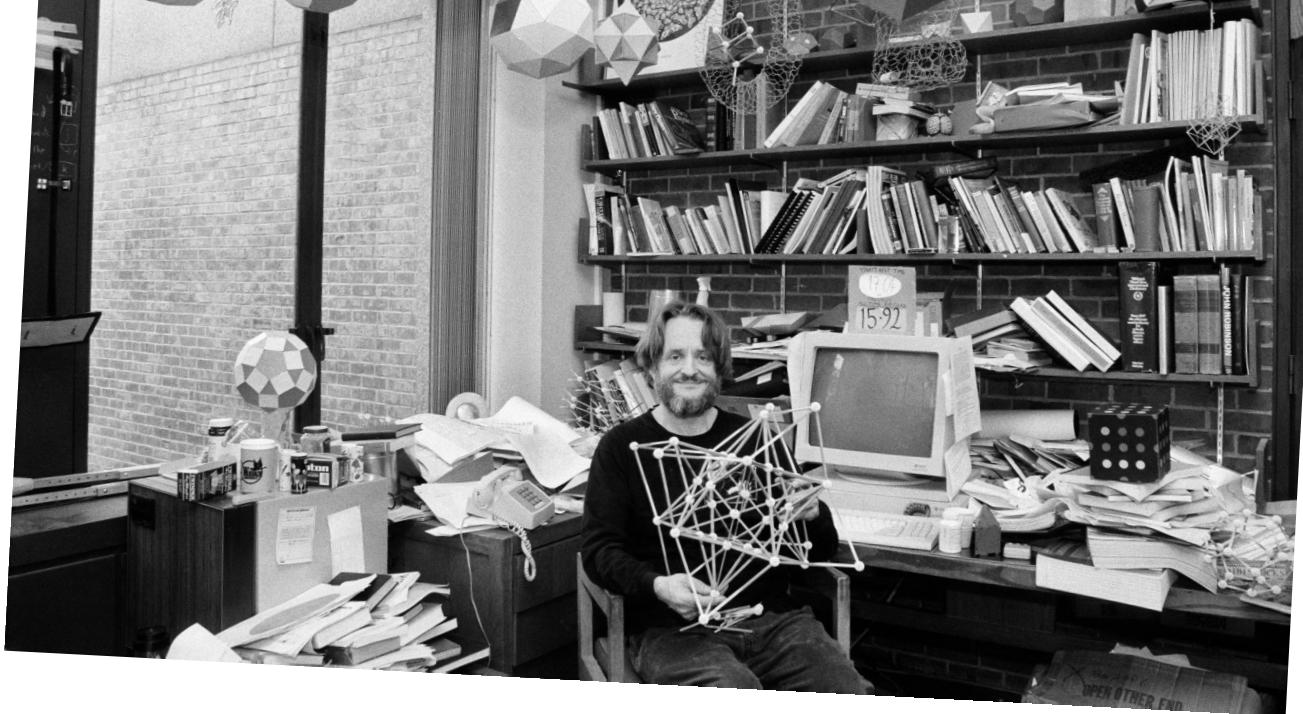
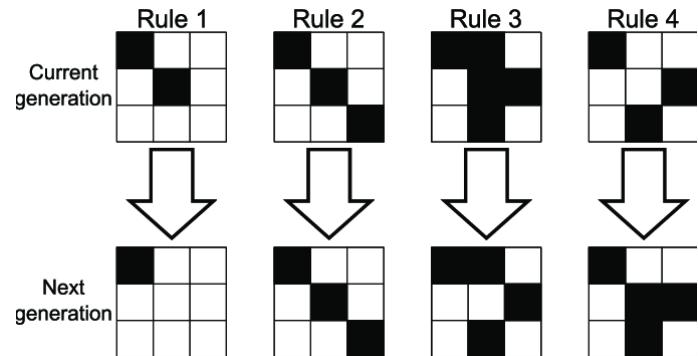
Matthew Cook

Rule 110  
2004

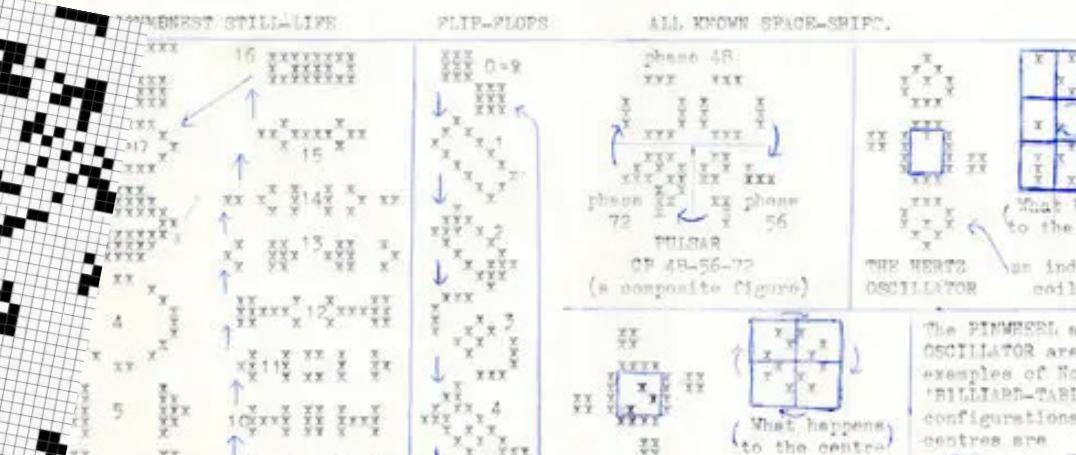
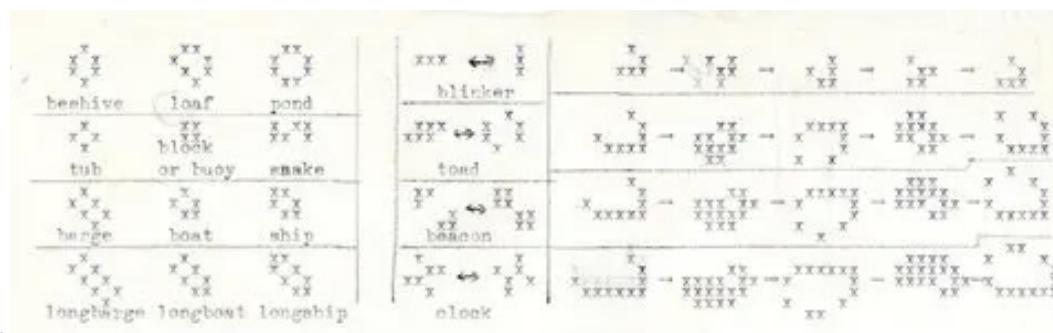
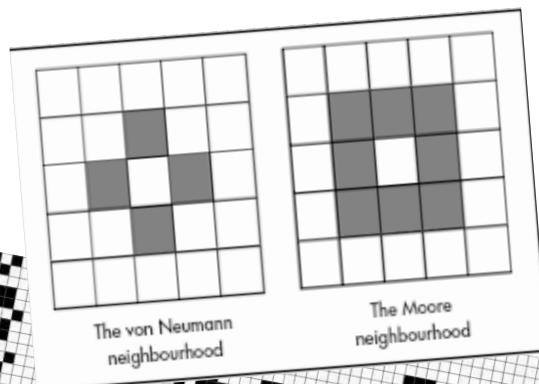
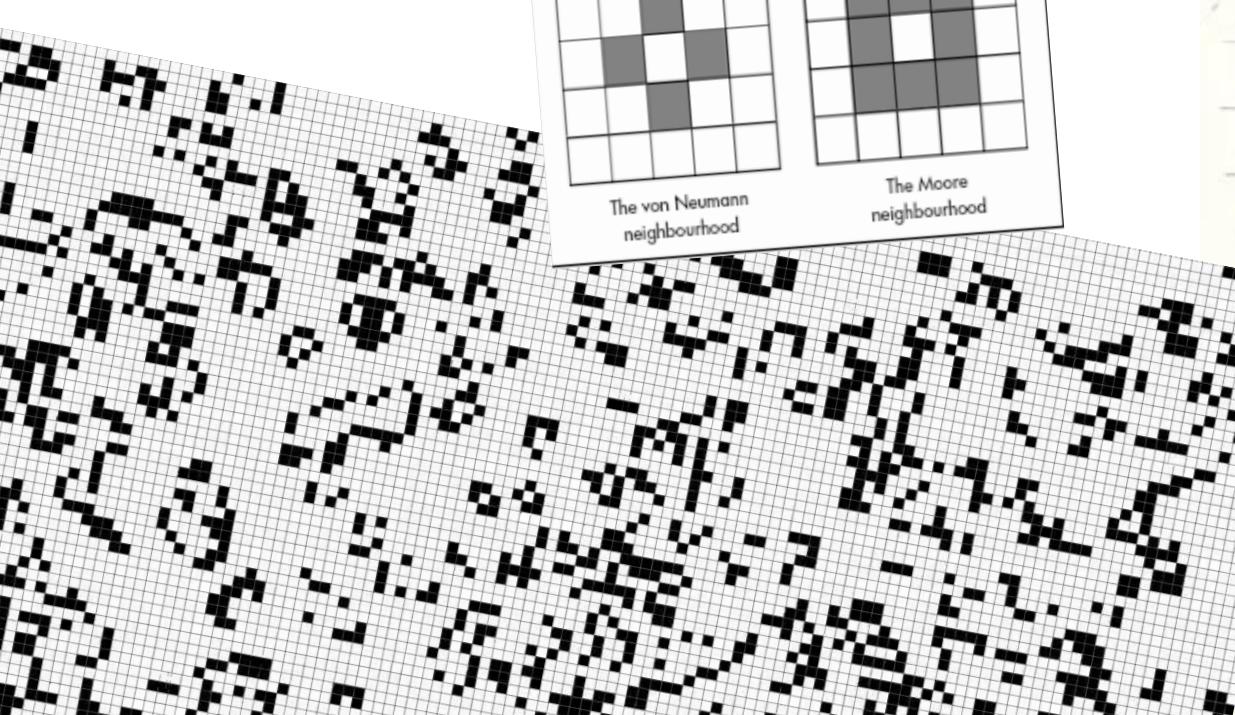


# Classic Cellular Automata

1968-1970



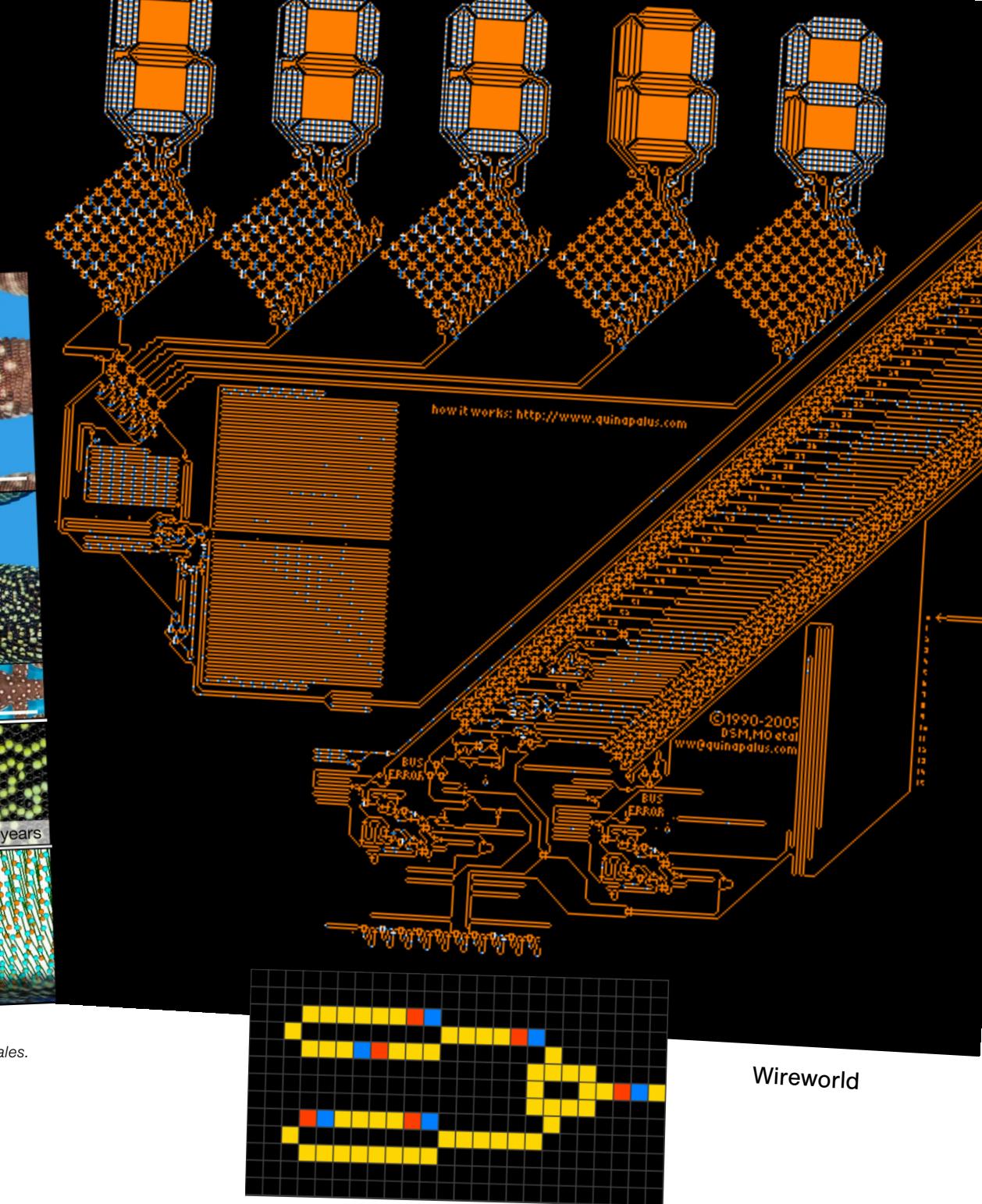
John Conway



# Classic Cellular Automata



Manukyan, L., Montandon, S., Fofonjka, A. et al. A living mesoscopic cellular automaton made of skin scales. *Nature* 544, 173–179 (2017). <https://doi.org/10.1038/nature22031>



# Neural Cellular Automata

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