

Part II

Modelling Social Systems

The advent of Alife led to a period of great excitement, as the power and flexibility of simulation suggested whole new ways to study the processes of biology. So too with social simulation, a relatively recent development in the social sciences in which simulation methods – most commonly agent-based models – are used to model social systems and their behaviours. The prospect of using simulation to model the emergence of population-level effects from individual social interactions at the agent level.

In Part II we will investigate social simulation as a methodology, uncovering both the strengths and weaknesses of this approach for revealing the processes underlying human society and its evolution. We will examine the complex relationships between social simulations, real-world population data, and social theory. We will also expand the methodological analysis begun in Part I and discover how the modelling frameworks we studied may be applied to social simulation, and how they compare to similar frameworks developed by social modellers and theorists themselves.

In order to examine these frameworks and their potential utility for social simulation, we will take inspiration from the early days of the field. The beginning of social simulation is frequently credited to Thomas Schelling and his residential segregation model, an elegantly simple investigation of how even minor preferences amongst individuals for living near to others similar to themselves can lead to residential segregation emerging at the population level. We will use Schelling's model to compare the methodological frameworks uncovered through Parts I and II, and use the insights gained to propose a way forward for social simulation as a whole.