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Nota di contenuto	Preface; Contents; Contributors; 1. Introduction Andrew Adamatzky; 1.1 Motorways; 1.2 Imitating road development; 1.3 Slime mould; 1.4 Physarum computing; 1.5 What the book is about; 2. Methods: how we conducted experiments and analysed their results Andrew Adamatzky; 2.1 Obtaining P. polycephalum; 2.2 Cultivation; 2.3 Experiments; 2.4 Physarum and motorway graphs; 2.5 Proximity graphs; 3. Trans-African highways Andrew Adamatzky and Anne Kayem; 3.1 Propagation from Cairo: three scenarios; 3.2 Protoplasmic networks of trans-African highways 3.3 Lubumbashi and Lusaka to Harare and Beira is the strongest link 3.4 Summary; 4. Tracing historical development of Australian highways Andrew Adamatzky and Mikhail Prokopenko; 4.1 Slime mould traces gold rush networking; 4.2 Physarum reconstructs the Gabriel graph; 4.3 Australian highways are a subnetwork of the Physarum network; 4.4 Famine and large-scale contamination; 4.5 Summary; 5. Belgian transport networks: redundancy and dissolution Andrew Adamatzky, Bernard De Baets and Wesley Van Dessel; 5.1 Bioessential motorways grow from Brussels 5.2 Physarum almost perfectly approximates Belgian motorways 5.3

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Sommario/riassunto

Slime mould Physarum polycephalum is a monstrous single cell well known for its task-solving abilities - solves computational geometry and logical problems, navigates robots and generates music.The slime mould could also build motorways, highways and expressways. It is used to analyse transport networks of Africa, Australia, Belgium, Brazil, Canada, China, Germany, Iberia, Italy, Malaysia, Mexico, The Netherlands, UK and USA. The largest cities are represented by oat flakes and the slime mould is inoculated in a capital. When all oat flakes are covered by the slime mould, the structure of the