

The shape of the Roman world: modelling imperial connectivity

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“La Méditerranée, ce sont des routes” (Lucien Febvre)

1. Sizing up Braudel’s “ennemi numéro 1”

The Roman Empire was very large: at the peak of its power, it extended 33 degrees of latitude from north to south and 34 degrees of longitude from east to west. The first of these accomplishments is by far the more remarkable, given that ecology favors expansion along an E–W axis. Of all the contiguous empires in pre-modern history, only those of the Mongols, Incas and Russian czars matched or exceeded the N–S range of Roman rule. And unlike those of any other major contiguous empires, the Roman territories were dramatically segmented, wrapped around an inner sea of 2.5 million km². Mountain ranges such as the Alps and Taurus on occasion required travelers to climb above 2,000 m to traverse passes. Within its borders, the Roman Empire was unprecedented and remains without successor, still the only state in history to have claimed all that space. Holding on to it, and distributing the resources required to maintain the imperial superstructure, must have been a formidable challenge. And yet, after generations of scholarship, we have only a vague sense of how this system was spatially configured and how closely its constituent elements were connected. Conventional maps look at the Roman Empire from high above. By representing distance as the crow (or rather, a plane) flies, they fail to give us a proper sense of how different hard and liquid surfaces, altitudes and climes shaped the movement of people across this vast space. The real cost of travel, in terms of time and money, remains unknown. A pictorial itinerary such as the *Peutinger Table* might arguably do a better job than a modern map by focusing on connections, but it does so in a way that likewise makes it impossible to understand spatial differentiation overall.¹

Fernand Braudel noted this problem a long time ago, drawing our attention to the human struggle against distance, the “ennemi numéro 1” of civilization.² He sought a way forward by developing what we might call “cost contour maps”, in which isochronic lines superimposed on conventional maps represented the time it took couriers to deliver messages from all over Europe to reach Venice during the early modern period.³ Inevitably, his pioneering efforts were narrowly circumscribed by the resources available at the time. A more comprehensive model of connectivity costs poses considerable challenges: it requires us to approximate the pace of movement across different terrains, by different means of trans-

1 The best conventional map resource is, of course, R. J. A. Talbert (ed.), *Barrington atlas of the Greek and Roman world* (Princeton, NJ 2000) (now also available as a tablet app); the best study of the *Peutinger Map* is his *Rome’s world: The Peutinger Map reconsidered* (Cambridge 2010), with the splendid online resources at <http://peutinger.atlantides.org/>. For ancient maps in general, see now the references in Talbert’s ‘Maps’, *Oxford Bibliographies*, June 26, 2012, DOI: 10.1093/OBO/97801953896610075.

2 F. Braudel, *La Méditerranée et le monde méditerranéen à l’époque de Philippe II* (Paris 1966) 326 (poorly rendered as the ‘first enemy’ rather than “enemy number one”, in the English translation of 1972).

3 *Ibid.* 331–39, drawing upon P. Sardella, *Nouvelles et spéculations à Venise au début du XVI^e siècle* (Paris 1948).