The Traffic Systems of Pompeii


Reviewed by Ray Laurence

Many readers will already have come across Poehler’s earlier work analyzing the possibilities of traffic systems in Pompeii (“The Circulation of Traffic in Pompeii’s Regio VI,” JRA 19 [2006] 53–74), and many more will be familiar with his work from the trade book by Mary Beard (The Fires of Vesuvius: Pompeii Lost and Found [Cambridge, Mass. 2008] 53–80). In The Traffic Systems of Pompeii, Poehler revisits this work with a view to reevaluating his original propositions of traffic flow (esp. 137–38). Yet, there is far more here that provides a new understanding of the technology of transport in antiquity, underpinned by almost two decades of study and extensive on-site analysis in Pompeii. This is a gold mine of data, methodologies, and interpretation that places the surface of the street at the very center of urban analysis.

The book opens with a new history of the development of the street grid at Pompeii, the origins of which can be traced to the Archaic era in the southeast part of the city (Altstadt). The street grid was established by a master plan of the fourth century B.C.E., with dating established via excavation (31–2). Of this grid of streets, at least 61% had been paved with lava (or silex) by 79 C.E., when Vesuvius erupted (54–5). The dating of the paving of these streets, also established through excavation, is shown by Poehler to have occurred in the first century B.C.E. (63–9).

The effort involved in paving is revealed by the statistics enumerated in the book. The area with paved streets is estimated to have been 243,582 m² composed of 28,100 tons (although imperial “tons” are indicated here, I think the measure is metric “tonnes”) of lava stone (77). A further 5,800 tons of a variety of stone types were used in the creation of curbstones, with an additional 26 tons (77) for the 316 stepping stones. The latter may seem at first sight slightly on the low side, given that 1 m³ of lava weighs in at 3 tonnes, with the stepping stones measuring approximately 90 cm long x 65–69 cm wide x 25–29 cm high (85–94). However, taking the lower end of this range of measurements, my calculation would see an “average” stepping stone weighing 0.42 tonnes, or 420 kg. As Poehler shows later, this is within the carrying capacity of carts, even if at the higher end for the weights of loads capable of being routinely transported (109).

It might be easy to argue that the paving from the first century B.C.E. could be associated with a form of “romanization,” but Poehler does not do this. Instead, later in the book readers will find a nuanced discussion of the use of Oscan, as opposed to Roman, feet in the measurements of carts that survive from Pompeii (114–23), with gauges most commonly recorded of 4.5–5.5 Oscan feet or 4–5 Roman feet (120). However, Poehler seems to expect that Oscan carts were replaced by Roman carts over time following colonization (116–19), even if this was gradual. For this reviewer, it seems the evidence of the actual carts from 79 C.E. points to a survival of Oscan measures among wheelwrights. This might inform our understanding of cultural change at Pompeii in relation to the long-term survival of local craft traditions, while we might see the adaptation of the streets (paving) to “global” urban phenomena in Italy (see papers in M. Pitts and M.J. Versluys, eds., Globalisation and the Roman Empire: World History, Connectivity and Material Culture [Cambridge 2015]). The presence of stepping stones at Pompeii would appear to have been a local variation, which can be found at some other sites: Norba, Alba Fucens, Marruvium, Aquinum, Saepinum, and Grumentum. Poehler identifies stepping stones as a Late Republican phenomenon (94), which seems to be associated only with central and southern Italy.
Water and drainage is a major theme along with traffic. Poehler shows that side streets were blocked not so much to restrict traffic as to limit the passage of water from the main street into the side street. Equally, stepping stones were placed across wet streets, and pavements were raised to keep water out of houses (82–5). The need to contain water in this manner is seen by Poehler to have increased following the provision of the aqueduct under Augustus (48–9). Thus, some paved streets were reengineered to contain water, while the side streets (many that were unpaved) were kept dry (54–60). This process of reengineering reduced the number of streets for wheeled traffic and narrowed the space in those streets for traffic. Just 16 streets could accommodate two-way traffic, accounting for more than one-third of the street network (149). These actions in relation to drainage directly affected the way traffic could proceed through the city and created a need for streets in which wheeled traffic went in a single direction (that could be subject to alteration).

Poehler’s attention to detail and the observations he makes are at times astonishing as he teases out how the Pompeians were attempting to deal with aging road surfaces. For example, the identification of what would seem an experiment to repair streets by pouring molten iron into ruts in the paving is hard to believe, but when 440 examples support this point (204), it is time to put skepticism to one side and accept that we have evidence for a failed technological experiment (the supporting evidence is available online). Imagining the social interaction that led to pouring iron into ruts probably requires further consideration of the relationship between contractor and city council. Poehler does not shy away from imaginary scenarios and utilizes fiction to drive a cart through the streets (190–215), focusing on inhabitants and strangers as drivers. There are at least one or two other stories to be told from Poehler’s data: the intentions of those who controlled the streets, and the actions of those they paid to implement the various innovations that Poehler has brought to light. Equally, how did traffic on market day negotiate this system of streets with a common destination—presumably the forum—that was closed to traffic?

The final section of the book sets Poehler’s work in a wider context of other cities in the Roman empire with a survey of 24 other sites (218–19). The key problem is that few of these have substantial grids for comparison. However, the site of Timgad does provide a very full story, and it differs from that of Pompeii. Timgad has far more space given over to streets (2.5 times as much, one-third of the city, though n. 582 suggests 40%), and most of the streets form broad colonnaded streets (ca. 14.8 m wide, compared with Pompeii’s average street widths of between 2 and 4 m). The picture created is a city with transport in mind, so different from Pompeii’s narrow and blocked streets. Yet there is still evidence for some of the patterns found in Pompeii, not least driving on the right-hand side (229–30).

Poehler places his work in the context of the study of urbanism and, specifically, the study of space in Roman archaeology, which is often focused on the site of Pompeii. Our discipline needs to take pride in the fact that it has developed what some outside the discipline see as “a mature study of urban space” (S. Griffiths, pers. comm. 2016). Poehler’s book certainly is an important addition to the ever-growing bibliography on both Pompeii and space in Roman cities—it is in fact difficult to discuss one without the other. I should also add that the book presents us with the possibility of reconceiving change in spatial practice, not just of the cart driver but also of others using the streets. While we can also relate the differences, identified by Poehler, in the master plans of Pompeii (fourth century B.C.E.) and Timgad (second century C.E.), we also have within this set of evidence information for understanding changes in the conception of urban space. The key difference was the need to provide space for wheeled vehicles. These are topics that the book opens up for further discussion, and the data provided will facilitate yet more insights into the use of space in Pompeii. It is worth noting that the data behind the book is available online as an interactive map and a data set.

From the beginning to the end of the book, we are treated to a sense of Poehler’s personal engagement with Pompeii as both a place and a subject. As a student in 1999, he spotted something that was invisible to others, cyclical wear on a curbstone, and he “seized upon its significance and, crucially, attempted to apply it to an archaeological landscape 45.8 hectares in area” (255 [emphasis original]). The book allows the reader to see Pompeii through Poehler’s eyes and discover the answers to his questions. As he concludes, “still there remains much to be gained by walking the city with fresh eyes and novel questions” (255). We can hope that the book will inspire the next generation of scholars to undertake studies on a similar scale.
Book Review of *The Traffic Systems of Pompeii*, by Eric E. Poehler
Reviewed by Ray Laurence
*American Journal of Archaeology* Vol. 122, No. 2 (April 2018)
Published online at [www.ajaonline.org/book-review/3651](https://www.ajaonline.org/book-review/3651)
DOI: 10.3764/ajaonline1222.laurence