

*Tot aquarum tam multis necessariis molibus...** Recent studies on aqueducts and water supply

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First came definitive treatment of circuses,¹ then successively volumes on the amphitheatre² and the baths³; and now Trevor Hodge on aqueducts: his *Roman aqueducts and water supply* (hereafter Hodge, *Aqueducts*) is the most important of the works on aqueducts which have appeared over the last quinquennium.⁴ It looks as though Roman structures are, systematically, at last receiving the sort of modern, detailed monograph treatment by category which each has long deserved.⁵ Hodge, who had prepared the way for this book in a number of important studies on water supply over the previous decade,⁶ as well as choreographing the wittily-entitled *Future currents in aqueduct studies* which presents recent work by other leading Roman hydraulicists (hereafter Hodge, *Future Currents*),⁷ has written in *Aqueducts* an immensely detailed book which will long stand as the definitive monograph of its subject in English. This is a work written with learning, lucidity and a light touch: despite the wealth of detail and the often technical nature of his subject, Hodge never lapses — *mirabile dictu* — into obscurity or pedantry. It is a book written with style, enthusiasm and gusto: its brisk, lively and often witty narrative moves along with all the speed and the sparkle of a fully-fed and fully-functioning water supply. It is a masterly survey, and Hodge deserves warm congratulations for his presentation of a vast mass of data in such coherent, convincing and readable fashion. We will return to it in more detail below.

This quintessential aspect of Roman civilisation is a field which — Hodge's own researches apart — has been dominated by German scholarship over the past decade: one may single out in particular the work of Gunther Garbrecht and Klaus Grewe.⁸ Indeed, it is one of the many strengths of Hodge's book that he is not only abreast of this latest German research but also provides a distillation of it in English for the first time. The publications inspired and partially financed by the appropriately named Frontinus-Gesellschaft, including the three handsome volumes *Die Wasserversorgung antiker Städte*⁹ which contain important essays on general aspects of the subject as well as detailed illustrated notes on selected key aqueducts, are particularly valuable; and thanks to K. Grewe's exhaustive research on the Eifel aqueduct (95 km in length) which served Cologne — after Carthage's, one of the longest known in the Roman world¹⁰ — we now have, in his magisterial *Atlas der römischen Wasserleitungen nach Köln*, a

* Frontinus, *De Aq.* 1.16.

1 Humphrey 1986. For reading this article in draft and making helpful suggestions I am grateful to Andrew Poulter and especially to Andrew Wilson who has been generous in his sharing of ideas and knowledge.

2 Golvin 1988.

3 Nielsen 1990; Yegül 1992.

4 Hodge 1992.

5 Bridges have now also received detailed monograph treatment, in both English (O'Connor 1993) and Italian (Galliazzo 1995); the former has a chapter on aqueduct bridges (150-62). What is still badly needed is a fresh monograph on Roman theatres, a theme of current research by F. B. Sear.

6 E.g., Hodge 1983, 1984, 1989.

7 Hodge 1991a.

8 Garbrecht 1986, 1987, 1988; Garbrecht and Jaritz 1992; Garbrecht and Manderscheid 1995; Grewe 1985, 1988a. See also infra nn.11 and 28, and Grewe's useful contributions to *Antike Welt*: Grewe 1991b, 1992, 1993 and 1994. For an excellent review of aqueduct scholarship in the 1980s, see Leveau 1991.

9 Garbrecht *et al.* 1986, 1987, 1988. A fourth volume in this series concerns mediaeval water supply: Grewe 1991d.

10 For Carthage, Rakob 1974; for a table of some aqueduct lengths, see Hodge 1992, 347-48. There is still