

Oscar Belvedere: L'acquedotto Cornelio di Termini Imerese. Planimetrie e disegni di Cosimo Serio. Istituto di Archeologia dell'Università di Palermo. Studi e materiali 7. "L'Erma" di Bretschneider, Roma 1986. XXIX, 202 p., 72 tav. & 16 tav. separate. ITL 250.000.

This is a very interesting book for everyone concerned with the archaeology and technology of Roman aqueducts. The small town of *Thermae Himeræae* west of Palermo on the north coast of Sicily was supplied by an aqueduct called *Aqua Cornelia* in CIL X 1084*. Those who consider the inscription genuine have suggested various senatorial *Cornelii* from the late Republic as promoters of the aqueduct, but Belvedere considers some local magnate as a more probable alternative.

The main bulk of the present work consists in a description of the remaining traces of the aqueduct, conducted in a masterly fashion and bringing to mind the works of Lanciani and Ashby. Comparative material is also brought to bear, and the author is well acquainted with recent work on Roman aqueducts. This is particularly evident from the classified bibliography at the end of the book, which among other things contains a useful list of works dealing with single municipal aqueducts in Italy and another dealing with known siphons in the Roman world.

Two siphons are actually the most interesting features of the *Aqua Cornelia*. One of them is the common "inverted siphon" type, where the water crossed a valley in a closed terracotta pipeline. But for crossing the vallone Barattina a unique feature in Roman engineering was used, namely a real siphon in which the water was made to rise temporarily over its free fall level. Belvedere argues that this feature was intentional, since the differences in height are so great that they would have been clearly noticeable. According to Belvedere the siphon was able to function in theory, but he admits that several signs show that restructuring was undertaken, and there is also a parallel aqueduct branch, l'acquedotto di Figurella, which crossed the Barattina valley in a different direction, perhaps necessitated by a later malfunctioning of the siphon.

Belvedere also argues that the Barattina siphon used lead conduits, even though none have been found on the spot. If this is the case, it is interesting because of the diameter which is assumed for the pipes, c. 40 cm. I know of no Roman lead pipes larger than 30 cm., the siphon at Lyon and the *castellum* in Nîmes included (contrary to what Belvedere believes, the *fistulae* in Nîmes were not larger than 30 cm., see G. Hauck - R. Novak, *AJA* 92 [1988] 393-407). However, it should be noted that Belvedere mentions a lead pipe with a diameter of 38.7 cm. found inside the city in 1799 and later lost. One regrets the lack of further information on whether this measurement indicated the inner or the outer diameter, and what the minimum diameter of the necessarily pear-shaped *fistula* was.

A brief chapter presents material relating to the water distribution inside the ancient city. Altogether, the book is a most valuable addition to the literature on Roman aqueducts.

Christer Bruun

David Kennedy – Derrick Riley: Rome's Desert Frontier From the Air. B.T. Batsford Ltd, London 1990. 256 p. GBP 29.95.

The rapid progress made in Middle East archaeology between the two World Wars was unfortunately checked by political developments in the post-1945 period. As a result, the remarkable aerial researches of Père Antoine Poidebard and Sir Aurel Stein could not be continued by programmes of aerial reconnaissance comparable to those carried out or in progress in several parts of Western Europe. With this book, the authors set out to make some of the material on the desert frontier of the Roman Empire more easily accessible both to scholars and a wider public. A survey of the geographical and historical context is followed by a section on aerial photography and archaeological prospection, with a very interesting corpus of material both from the 1920s-1930s and of more recent origin, as well as a detailed examination of the sites (water supply, roads and communications, temporary camps and siege works, fortress cities, legionary fortresses, forts, towers, etc.). Apart from the photographs, the text is accompanied by maps, a toponymical glossary, a large bibliography, an appendix on Roman emperors and an index of subjects and names.

Outi Merisalo