

Scheidel (W.) *Measuring Sex, Age and Death in the Roman empire: Explorations in Ancient Demography* pp. 184; figs. Ann Arbor. Journal of Roman Archaeology, suppl. ser. 21. Hbk. ISBN: 1 887829 21 0

This book consists of four loosely linked studies, on brother-sister marriage (ch. 1), reported ages in Roman Egypt (ch. 2), the Roman imperial army (ch. 3), and on seasonal mortality (ch.4). I will comment briefly on the two central chapters before turning to the perhaps more radical chapters that frame the study.

According to ancient funerary monuments, as is well known, a disproportionate number of ancients attained a number of years at death with the terminal digits 0 or 5. Such observations have been used to cast doubt on the reporting of age in funerary contexts and to question the levels of literacy of the population in which age was reported so loosely. S. demonstrates statistically that in census returns and tax lists from Roman Egypt these 'adjustments' or inaccuracies were remarkably rare, though attested, but that in other kinds of evidence, mummy labels, the epigraphic record and in contracts, such patterns were much stronger. There was also a consistent avoidance of the final digit 7. In contexts in which age matters financially and where ages could be checked against previous declarations, the Egyptians tended to be consistent, but in contexts in which general description of age was required (such as when age is used as a descriptor on contracts) approximations were more common. I am unsure whether this demonstrates that most Egyptians knew how old they were or the qualities of the bureaucratic system.

S. turns to the Roman army of the early principate in chapter 3 and examines what the likely patterns of mortality imply for Roman finances and recruitment patterns. S. points out that extending military service from twenty to twenty-five years produced substantial savings for the fiscus. He also attempts to use the various inscriptions enumerating those discharged from particular legions in particular years to estimate the size of the legion. He concludes that the resulting legions appear rather small and suggests that early discharge or promotion out of the legion explains this. I remain unconvinced, believing that irregularities in recruitment offer the most likely explanation. S. argues that even after the Augustan reforms 15-20% of Roman males must have joined the army aged 20. This depends on accepting the traditional 'low' estimate of the Roman population in the face of the 'high' estimate proposed by E. Lo Cascio.

Chapters one and four raise more substantial problems. Chapter four concerns seasonality of death and should be read in conjunction with Brent D. Shaw 'Seasons of death: Aspects of mortality in imperial Rome', IRS 86 (1996), 100-38. S. argues that the pattern of seasonal mortality in Rome (particularly high in the summer months) results from the peculiar disease regime of the capital and is, therefore different from the mortality patterns of Egypt. Further, the seasonality of mortality in Egypt looks different from that of other regions, such as North Africa, conclusions broadly confirmed by Shaw, though the latter is more cautious. The differences in seasonality of mortality suggest that mortality patterns were localised and it must, therefore, follow that the resultant population structures were different.

The first chapter is the most methodologically innovative, using the insights of socio-biology to investigate the implications of brother-sister marriage which, if we accept S.'s view, are shocking. The chances of serious disability increase ten fold, IQ falls dramatically, and perinatal infant mortality (presumably massively increased in antiquity by infanticide) also increases by at least 200 - 300%. S. concludes that sibling marriage put 'the very survival of any given family at a considerable and easily avoidable risk.. in a manner that must eventually have dawned on all but the most benighted contemporary observers' (p.38). Furthermore, he argues that studies of unrelated young children brought up together suggest an absence of mutual sexual desire when the children reach maturity. The evaluation of this depends at least in part on the credence one plays in socio-biology, a discipline with a rather shady background, and although I am not equipped to offer a proper critique, I have a few doubts. Firstly, S. can offer no explanation for the phenomenon of sibling marriage. Yet, without a convincing explanation, it strains credence to believe that large numbers of Egyptians willingly imposed such burdens on their children and it may be easier to conclude that the science is misleading. S. also shows that some in-bred (but not incestuous) populations do not show the debilitating characteristics outlined. Another concern is the applicability and scientific basis of modern studies of children of incestuous unions. Modern incest is abusive and linked to other forms of physical and psychological violence. Certainly, anecdotal evidence would suggest that children of incestuous unions suffer IQ reduction but abuse is often recognised through the manifestation of other forms of anti-social behaviour which may lead to a bundle of psychological and social problems that effectively limit the abused's social opportunities and ability to escape from the influence of the abuser, possibly condemning them to the margins of society. The secretive nature of

abuse means that the known population of children born from incestuous unions is small and their family histories murky and abusers are often themselves victims of abuse that may be perpetuate over generations. How could one strip out the social factors from the biological, a problem which has particularly beset studies of intelligence? Also, the patterns of modern abusive activity would suggest that we ought to be very cautious in looking for biological determined psychological taboos. The parallels adduced by S., kibbutzim and sim pua marriages (marriage of couples brought up together from early childhood) demonstrate the reluctance of what one might term 'fictive' siblings to marry, but both phenomena occur in societies which have incest taboos. It is not clear that the attested psychological distress can be transposed to Romano-Egyptian individuals.

S.'s study is a fascinating and thought-provoking contribution to our understanding of what Brent Shaw calls 'the basic facts of life, and death, in the Roman world'. The difficulties of the material are exposed and there is no attempt to obscure the many remaining problems. Once one adds topics we know so little about, macro-demography (population of regions), patterns and ages at marriage, management of fertility, population control and local and chronological variants in fertility strategies as well as mortality regimes, one can see how far we are from a proper understanding these complex basics of ancient societies.

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