

White and the *Rustici*

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THE study of Roman farming goes back some centuries, I think, beginning among the Italians of the Renaissance. The transmission of the Roman agricultural tradition is another question, and in some lands must be continuous; the Arabic *Kitaba al-Felaha* (twelfth century?) owes much to Greek and Roman sources, and in some eastern regions, such as the Balkans and Cyprus, peasants were recently working much as their forbears worked when their lands were part of the Roman Empire. But it would be interesting to establish how many of the more recent students of Roman methods had personal experience of farming. Adam Dickson, who wrote in 1788, certainly had; one suspects that Billiard knew his vineyards. Although the bibliography of classical agriculture is enormous (White himself has listed 918 items), it has been as difficult to distinguish authors who write as if they really knew the nature of agricultural methods as it has been to discover historians who have paid instructed attention to agriculture as the foundation of Roman society. Management, tenure, the labour problem, the plough, the relative importance of various branches—all these subjects and others have received ample study. But more often than not the bones of actual farming elude us in these works. In the last century some enterprising Gallic villa digs (Anthée, Chiragan) provoked their intelligent excavators to attempt to derive from the *bâtiments d'exploitation* estimates of areas, yields, and livestock; in the 'twenties and 'thirties in England, Cocks, Corder, and Radford began to look at villas as farms, and in the 'thirties Fritz Fremersdorf's splendid and meticulous excavation of the Müngersdorf villa demonstrated how an economy could be reconstructed by disclosing and analysing all the villa's outbuildings. More recently, the French have begun to look at Roman farming through mosaic pavements, and Tchalenko has used the

hitherto neglected rural remains of north-west Syria to essay a remarkable reconstruction of the area's agrarian history in the Roman and Byzantine periods.

Yet in most of the other various works something is missing, namely the conclusions arising from a personal involvement in agriculture. A rare exception to this was the late C. E. Stevens's account of the agriculture of the later Roman Empire. Generally, however, one of the missing elements has certainly been the connecting link between the archaeological remains and the agrarian reality, and their use to test the written sources, which in the Graeco-Roman period are (outside Italy) usually inadequate. Uncommon too has been the study of farmsteads in relation to their environment and to one another; the work on the *Ager Veientanus* of Ward Perkins, Threipland, and Kahane is excellent in this respect, but suffers from the lack of excavation in that region.

Professor White's *Roman Farming*¹ goes a long way to furnish the missing personal involvement with the craft, and he has not ignored what archaeology has to offer to this field of study. But the gravest deficiency of this book, which possesses numerous merits, is its misleading title. The error is only apparently semantic; the problem is, What do we understand by the word "Roman"? If it is here used to denote the farming of the Romans and their subject peoples (including the inhabitants of Gallia Cisalpina) in Italy only—well and good; if the title is intended to refer to the agriculture of the Roman Empire from Aswan to Inchuthill—then this is not the present book. By and large, this work deals with Italian farming of the later Republic and the earlier Empire, with a highly contracted account of developments elsewhere down to the end of the western provinces. Various brief references to

¹ K. D. White, *Roman Farming*. Thames and Hudson, 1970. 536 pp. 81 plates, 12 figs.

imperial provinces, such as those included in Gaul, Britain, Spain, Africa, Greece, and Syria, leave us unsteady and wondering if a standard agriculture prevailed throughout the empire. The answer, of course, is obvious: Roman techniques notwithstanding, in the Mediterranean and oriental regions local traditions and methods survived, perpetuated by natural conditions, and modified by Roman influence, while the temperate zones imposed their own climate and physiography on their farming, and the degree of Roman influence constitutes a complex and absorbing problem.

Of all this, I have no doubt, the author is well aware; but the lack of firm definition of the book's scope leaves the informed reader with an underlying malaise. The fact is, that the agriculture of the Roman Empire was both a palimpsest and a mosaic, and the history of the encounter between the indigenous husbandry and the Roman, whether in Belgica or in Judaea, is not only at the beginning of its investigation but of considerable, perhaps of decisive, importance to all who wish to understand the technology and society of the Roman world. That the present book should be preponderantly technical rather than sociological is no deficiency; we are profoundly grateful to White's unique mastery both of Latin texts and of agricultural economy and techniques. But the unbalance remains, and further scholarly effort will be needed to extend the picture to the various provinces, and to combine technical and economic considerations with other aspects in order to produce an agrarian and social history.

This said, we are all praise for the book's aesthetic format, for its well-selected illustrations which fluctuate from Italian winnowing to African landscape mosaics, and for its orderly and systematic treatment of literary sources, the geographic setting, crops, manures, cereals, arboriculture, animal husbandry, personnel management, organization, types of production and estates, farm-buildings, and technical progress. These chapters, moreover, are interlarded with down-to-earth appendixes on such subjects as the Roman authors' classification of

soil-types, ration-scales for working oxen, and a glossary of terms used in the cultivation of vines and olives. The notes embody a wide bibliography, but we miss a consolidated list (perhaps omitted for reasons of space) which would have made life easier, and this induces us to turn to White's invaluable *Bibliography of Roman Agriculture* (1970). In his bibliographical citations, nevertheless, the provincial question again raises its head: Does Professor White know what was going on on the fringes of the empire? Where is Tchalenko's remarkable survey of Roman rural society in north-west Syria, and what of Graeco-Roman dry-farming in Cyrenaica? Evenari's astounding and authoritative English book on the ancient agriculture of the Negev, unluckily for White, appeared a year after the work under review; the symposium on Roman agriculture in Germany (*Germania Romana*, iii, Gymnasium 7, *Römisches Leben auf Germanischem Boden*, ed. Hinz) almost concurrently with it. The fact is that Professor White's interest is primarily centred on the techniques described or implied by the *Scriptores Rustici*, and it is within this circumscription, on the whole, that the critic must wield his pen.

An interesting point arises, for instance, on the question of the "three-month" wheat referred to by Columella and Pliny. White terms its alleged time of maturation "a typical exaggeration". Maybe, but this rapidly ripening variety is referred to also by Theophrastus (*Hist. Plant.*, viii, 4), and in the reign of Ptolemy Philadelphus by papyri, which call it "Syrian" or "second-crop" wheat; a similar strain was known to the Judaeans farmers of the second century of the current era. As to the possibility of maturation within so short a space of time, the verdict must lie with the botanists, and a vital point may be that, in Egypt, the alleged variety was an irrigated crop.

As regards White's treatment of the problems of Roman fallowing and crop-rotation, I have a feeling that his discussion after a given point begins to ramble; the evidence is clear that the importance of rotational courses was well understood by experienced and literate

farmers, and areas where continuous cropping was successfully practised are referred to by the authorities. The problem is surely to what extent this knowledge was applied, and what were the factors that restricted its diffusion. As to Virgil's evidence for the frequency of rotations in Augustan Italy, one might draw precisely the opposite conclusion to that drawn by White from the text. The low rating of cattle manure in the scale of values recorded by the *Scriptores* is an instance of the inapplicability of Italian experience to temperate zones and even to the entire Mediterranean; it is clear enough from the byre accommodation in some Roman villas in Britain and Germany that cattle manure was valued in the temperate countries, while the extraordinarily high scales of farmyard manure prescribed by Jewish authorities in the first two centuries AD (twenty tons to the acre!) imply a close dependence on herds maintained in the stall or the farmyard. And *in pari materia*, how does White arrive at his equation of 24 loads = 12 tons? Columella does not state what the weight of the *velae* was; Dickson calculated it at 11 cwt, thus differing little from White, but the result is to attribute to the individual Roman cow an output of 66 tons per year. Eckles and Palmer make the average manure yield of the modern milchcow some 9 tons, and the Roman cow was certainly a smaller animal. Even assuming that litter is reckoned, 66 tons is an impossible quantity, and when I mentioned Dickson's estimate to an experienced Kentish stockman, his comments were, even in this permissive age, unprintable. Perhaps my own arithmetic is defective.

On the limitation of rye cultivation to the Piedmont, as reported by Pliny, it would have been worth while to add that this cereal was otherwise (so far as is at present known) confined to Europe north of the Alps, and is not mentioned again south of them until the promulgation of Diocletian's edict of prices. In discussing land-drainage schemes, White alludes to the draining of the Wash area of England and to the Fenland transport canals such as the Cardyke, but not to the most relevant and impressive feature of the project,

namely the long straight cuts which served to drain the upland runoff responsible for the formation of the Fenland swamps. On the subject of irrigated pasture, water meadows, not mentioned in the book, are discussed by the *Rustici*, and the siting of some Roman villas, for example in southern Wiltshire, strongly suggests the use of such for fattening stock, and doubtless other parallels could be found in a well-watered land like Gaul.

The interesting Roman practice of scattering dust on the vines in late summer before the vintage is explained by Pliny as aimed to hasten maturation; may we add that elsewhere this practice is known to check evaporation and hence to accelerate ripening. Similarly the thinning of the vine foliage executed by Roman vintners in May was not simply to admit sunshine but also to keep down pests.

The discussion of animal husbandry includes a brief allusion to the annual slaughter of livestock which could not be maintained through the winter owing to shortage of fodder. In the temperate zones, at least, recent specialist research has shown that in the British Early Iron Age and Roman periods animals were successfully maintained throughout the winter; in the Mediterranean region, although stockmen say (at least in Israel) that winter is the hardest season in which to maintain flocks and herds, the winter rain brings new pasture and the early spring green forages, and the ability to feed the animals adequately must differ greatly according to weather and environment. (Cf. White, p. 306, on sheep: "winter and spring feeding is much simpler.")

Transhumance is perhaps a more important phenomenon than the reader would conclude from the paragraph White devotes to it. It may have been, as he holds, the most efficient use of natural resources in parts of southern Italy, but there is no doubt of its negative effects in some Roman provinces. In densely farmed countries such as Cyrenaica and Judaea, its destructive element arose from its non-integration with the permanent farming pattern in certain periods, and this is an instance of the interaction between political-social change and agriculture.

Professor Brunt, indeed, has emphasized in relation to Apulia that the practice obliged the owners of transhumant flocks to control the tracts at both the summer and the winter ends of the annual movement; the same was certainly true in Cyrenaica, probably in Judaea. The persistent rabbinical denunciation of "small livestock" (i.e. goats and sheep) is to be explained on this basis.

Not the least absorbing of his themes is Professor White's discussion of the size of Italian smallholdings. The subsistence plot of 7-8 iugera for a family of 3.25 souls seems amazingly small, but recent investigations in western Samaria appear to indicate an average plot of about 6 acres per family ($9\frac{1}{2}$ iugera) in the hellenistic and Roman periods. Smaller units are recorded by the Jewish scholars elsewhere in contemporary Judaea.

The dominance of slave labour in Italian agriculture down to the later empire is emphasized by White as it has been by Brunt, Heitland, and their predecessors. Here, again, the effect of Italocentricity might distort estimates of the situation elsewhere. I am far from certain whether a considerable proportion of the labour was not provided by tenants, clients, dependants, and kinship groups even in provinces where the slave element was of some size. I have argued on these lines in relation to Britain on the evidence of house-types, field-patterns, and of some features of ancient Welsh law, and the matter deserves examination in other provinces in the light of the available epigraphical and archaeological evidence. (Edith Wightman's recently published paper on Roman Gaul, and my own forthcoming observations on Judaea in the same publication—*Aufstieg und Niedergang der Römischen Welt*, II, may repay attention in this regard.) Apart from a brief allusion, moreover, we do not find White considering the phenomenon of hereditary rural serfdom in the agriculture of the empire; his book, it is true, is not a social study, but any assessment of the labour factor cannot omit this element, common in the Middle East and existent in Gaul, Britain, Egypt, and, I would suspect, in Africa.

Lastly, the problem recently discussed by Finley and alluded to by myself in this journal in a review of his work, *The Ancient Economy* (1973): Why did the Roman rural economy fail to advance technically?—and was the outlook of the absentee estate owners, who regarded agriculture as a mere milchcow to support their prestige, the principal reason? White follows Finley on this question; but I am not sure if the answer is so simple. In the first place, to which region do White's own statements relate—to Italy or to the empire as a whole? And were all the provincial estates, large and small, maintained for prestige and without due attention to good management? Were the thousands of flourishing villas established in the course of centuries in Gaul, the Rhineland, Africa, the Danube countries, and the East, and whose steady growth can be traced by excavation, worked up out of motives of mere social ambition? I have written of this matter in the aforementioned review; and repetition would be tedious, expansion beyond the exigencies of space. Absence of technological advance does not necessarily indicate poor farming or inefficient management; in any case the number of absentee proprietors could be exaggerated. Over-taxation was one certain factor encouraging decline. Yet it is factual that fourth-century Britain possessed more small farms and villages than ever before, and that the lesser farms and villages of north-western Syria were booming down to the early seventh century.

All this makes the factors behind the decline and collapse of Roman imperial husbandry more complex than they look; climatic change seems to have played its part, but how far this affected the Mediterranean area is still unclear, and the possibility deserves a mention in a book of this category.

Roman Farming nevertheless is sound stuff; it is a milestone in investigation, and the author's rare combination of accomplishments has contributed a handbook to be used for many years to come. When someone appears to write a better book on the theme, it will probably be Professor White.