

## Book Reviews

RONALD L. NUMBERS and TODD L. SAVITT, *Science and medicine in the Old South*, Baton Rouge and London, Louisiana State University Press, 1989, 8vo, pp. xii, 370, £33.75.

The American South before the Civil War was distinguished by a rural agricultural economy based on chattel slavery and in many places a moist warm climate favourable to infectious and parasitic diseases. These conditions led southerners to claim that the ante-bellum South was medically and scientifically distinctive, a viewpoint that is examined critically in this collection of essays.

According to Ronald Numbers and Janet Numbers, using lists of eminent American scientists obtained in other studies, there were fewer southern scientists than might be expected from the South's proportion of the US population. Statistical analyses showed that the backwardness of southern science could be explained largely by its rural character.

Thomas Dyer found that the interest of the University of Georgia in basic and applied science up to 1860 matched that of other southern and northern universities. Lester Stephens concluded that scientific societies in two southern cities functioned largely as exclusive social clubs. Brooks Holifield examined the genuine interest in science among some leading southern clergymen.

William Scarborough's valuable essay on agricultural science found that southern newspapers and agricultural journals publicized new discoveries, but that southern farmers were more conservative than those elsewhere because of the South's rural and slave economy and society. A few planters made valuable contributions to scientific agriculture, but were hampered by the state of southern scientific and educational institutions. In another impressive chapter, Charles Dew shows that the southern iron industry failed to adopt new technology and became nationally uncompetitive by 1860. He attributes this to the unwillingness of the skilled slave iron workers to use the new technologies.

The remainder of the book concerns southern medicine. In an excellent but too-brief epidemiological article, David Patterson shows that the southern climate was favourable to mosquitoes, worm eggs and larvae, and water-borne pathogenic micro-organisms. Poverty was common, sanitation was poor, but nutrition was equal to that in the north. Slaves brought virulent forms of malaria, hookworm, and yellow fever from Africa that debilitated the white and native Indian populations. Patterson is the only contributor to describe regional differences within the South.

James Cassedy's useful study examines the interests of southern physicians in the relationship between disease and southern topography, climate, and flora and fauna. He claims that "southern regional chauvinism" (p. 175) arose in the 1840s to defend slavery and to attract students to southern medical schools and subscribers to southern medical journals.

John Warner argues that claims of the distinctiveness of southern medicine paralleled assumptions about differences between urban and rural diseases and American and European ones. However, the factors involved in urban disease had been carefully investigated and were widely accepted, while claims of southern medical distinctiveness were vague, unsupported by data, and always ideological. American physicians relied on European medicine for their textbooks, much of the content of their journals, their drugs, and their surgical procedures. Warner's conclusion, that Southern medical chauvinism was a response to the marginal role of southern physicians, is not supported by evidence that their role differed from that of northern physicians.

Margaret Warner's interesting study views yellow fever as largely responsible for the south's unhealthy reputation. The research of southern physicians into its aetiology and mode of propagation produced only a "multitude of contending theories that weakened the chances for effective public-health reform" (p. 255).

Samuel Thielman found few differences between the care of the insane in the south and in the north. Elizabeth Keeney's study of books of domestic medicine written by southern physicians concluded that they were similar to books written by northern physicians. Elliott Gorn describes the folk beliefs of slaves.

Todd Savitt provides an outstanding analysis of the health of plantation slaves in Virginia. Slaves differed from whites in their susceptibility to disease, both genetically (such as the sickle cell trait that increased their resistance to malaria) and environmentally (their poor living and

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working conditions made them more susceptible to many infectious and parasitic diseases). He describes the types of home and professional care provided to sick slaves by their masters and other slaves.

This book contains several outstanding and many valuable essays. It does not alter the support of this reviewer for Cassedy's explanation of the assertions of the distinctiveness of southern science and medicine.

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JAMES C. RILEY, *Sickness, recovery and death: a history and forecast of ill health*, Houndmills and London, Macmillan Press, 1989, 8vo, pp. xvi, 295, £37.50.

Professor Riley wants to overturn the widely-held assumption that the decline in European mortality rates through the nineteenth century was paralleled by a fall in the prevalence of morbidity. He proposes instead that the gain in life expectancy since the 1860s has allowed a greater amount of what he calls "insult accumulation", which issues in a rising incidence of episodes of incapacity to work and a prolongation of such episodes. His case is premised on the statistical finding that the likelihood of falling sick and being sick are functions of the age of the group at risk.

The evidence underpinning this argument is drawn from a range of mutual insurance society and sick funds records, starting with the Plantin Printery fund for 1654–89, to the sickness life tables for 1750–1821 and 1831–42 constructed from some Scottish friendly society surveys, through to The Guild of St George (Cheshire) for 1873–1946. These organizations normally covered only adult males who presumably were judged physically and mentally sound and in receipt of steady wages at entry. Only one set of records, the rather uninformative material remaining from the Ashford (Derbyshire) Female Friendly Society, 1789–1833, relates specifically to women. Riley shows that the data, limited though they are, are consistent in demonstrating that the regime of early average age at death in the seventeenth and eighteenth centuries incorporated single, acute episodes of illness from infectious diseases, typhoid, typhus, smallpox, accompanied by frequent sudden deaths. By the later nineteenth century these relatively short episodes were displaced by lengthier chronic degenerative illnesses accompanying a wider range of survival into older age groups and prolonged periods of disablement and incapacity to work before death from "old age". Riley uses recent American data to project these trends into the next century; his predictions are discomfiting, not least for the baby-boom generation who probably will comprise a main part of the readership of his book. Policy makers should take Riley's work very seriously.

Nonetheless, Riley's argument remains exploratory. His sources define his propositions: "incapacity to work" is necessarily an insured interlude among employed males until total incapacity arrives with senescence and death. Other materials, notably workhouse and almshouse records, would provide more information about women and children and particularly about men, women and children engaged in poorly paid, ill-protected occupations such as agriculture, common labouring, and domestic service, where the prevalence of malnutrition, overcrowding, and severe injuries, especially spinal ones and fractures, might strengthen the case for statistical links between acute illness bouts and sudden death in the earlier period; equally, the prevalence of mental handicap and illness, rheumatism, and chronic skin infections might modify the hypothesis. One helpful check on the representativeness of the friendly society membership would be a survey, if the information exists, of rejected applicants and dropouts. Doubtless the indefatigable Riley is looking for it.

There are also the people who never needed such insurance. As compared with the working classes and the destitute, the upper classes, during the nineteenth century at least, appear to have attained longer life expectancies, fewer but possibly lengthier bouts of incapacity and better chances of remission or recovery, from phthisis, for example, with much less exposure to the risks of severe physical injury. They might well have made the transition from high infant