

author has clearly immersed himself in his subject, and has produced a readable, engaging work that should be of special interest to researchers studying the historical conflicts between science and religion, the history of racialist thought and the developing ideology of 'scientific racism'.

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LEE D. BAKER, *From Savage to Negro: Anthropology and the Construction of Race: 1896–1954*. Berkeley, Los Angeles and London: University of California Press, 1998. xii+325 pp. 14 plts. £11.50/US\$17.95 (pbk). ISBN 0 520 21168 5.

Lee Baker moves deftly between the discourses of anthropology, Afro-American studies, and American public culture, interrogating what has gone wrong in the past century's quest for racial equality and social justice and why academic scientific findings have been selectively and detrimentally appropriated in public discourse. The answers lie in the history of science in relation to its engendering society and in contexts provided by disciplinary border crossings and alliances.

'Researching, theorizing and classifying racial groups has always been the province of anthropology' (p. 2), but anthropology has been no more static over the past century than the politics of race. 'Racial realignments' (p. 218) have come and gone, but anthropology has remained at centre stage. Anthropology 'matured as a discipline' in the late nineteenth century as America attempted to come to terms with its heritage of slavery, civil war, and reconstruction.

The bookends of Baker's study are Supreme Court decisions with wide-ranging consequences: the legalization of racial segregation in the doctrine of separate but equal (*Plessy v. Ferguson* (1896)) to acknowledgement that segregated education was inherently unequal (*Brown v. Board of Education* (1954)). Meanwhile, anthropology moved from Social Darwinism (scientific rationalization for racial inequality) to cultural relativism (recognition of race as culturally constructed rather than biologically given).

Academic anthropology acquired academic respectability alongside American imperialism and institutionalized racial segregation and disenfranchisement; similar issues surfaced in Native American and immigration policies. Baker documents the racist positions of anthropological founders (Daniel Brinton, John Wesley Powell, Lewis Henry Morgan), emphasizing the growth of disciplinary prestige precisely 'because ethnologists articulated theory and research that resonated with the dominant discourse on race' (p. 27). The optimism of science and progress, however, was restricted in application to white (male) middle class citizens.

Ideas of racial inferiority were popularized in monthly magazines reaching millions beginning in the 1890s. The World's Columbian Exposition of 1893 enacted for American popular culture the evolutionary hierarchy of race. Its implicit social model constrained Negroes to their pre-ordained place. This representation was embodied in the Tuskegee Institute, an industrial school established by Booker T. Washington in 1881. Until his death in 1915, he exhorted Negroes to aspire to modest goals rather than challenge their treatment in American society. Racial separation was justified by the anthropological framework of savagery, barbarism and civilization. WJ [sic] McGee of the Bureau of American Ethnology even invented a fourth stage, enlightenment, attained only recently in modern America.

Progressive Era reform and the New Deal were salutary for the country as a whole but did little to ameliorate racial conditions. Indeed, Neo-Lamarckian eugenics particularly targeted Negroes and new immigrants.

The spokespersons for social reform were Franz Boas in anthropology and W. E. B. DuBois in sociology whose activism made them 'muckrakers in an ivory tower' (p. 99). Boas moved 'the anthropology of race' from evolution to cultural relativism. This intellectual achievement, based on extensive biological research with immigrants, became important in public discourse, however, only when 'appropriated by African American intellectuals engaged in the processes of razing America's racial edifice' (p. 100). Boas's immigrant studies were systematically ignored by the very US Immigration Commission that had sponsored them. Within the academy, however, Boas enabled a paradigm shift that redefined American democracy. Race was merely statistical, with racism historically determined and therefore amenable to change.

Baker suggests that Boas and DuBois reached 'strikingly similar yet different understandings of racial categories and cultural patterns contemporaneously' (p. 107). This should not be surprising given the roots of each man's education in German humanism, stressing inductive method backed up by empirical descriptive and historical data.

Boas had certain advantages because he was white, well situated in the academy, and viewed as an 'objective' scientist (in contrast to the 'racial vindication' genre pioneered by DuBois (p. 107)). Boas was active in DuBois' various enterprises, with a commitment transcending empathy engendered by experience of anti-Semitism. Racism offended the canons of social science.

DuBois attempted to balance 'black nationalism and racial integration' (p. 110) through pragmatic strategies balancing apparent contradictions. Like Boas, DuBois dissociated race from culture and language, expecting scientific knowledge to enable a richer democracy. DuBois pioneered social science community studies, predating the models for 'cultural diversity premised on racial equality' of Boas, W. I. Thomas, and Lloyd Warner (p. 115). These studies, however, were ignored in public discourse adulating Gunnar Myrdal's *An American Dilemma* (1994) sponsored by the Carnegie Foundation and propounding an elitist status quo. Only after World War II did the glaring contradictions between segregation and democracy become apparent and facilitate Civil Rights victories which cited Boasian science as justification for equal treatment.

Contemporary Supreme Court sanction for a colour-blind society protecting individuals but not groups dismantles the attainments of the Civil Rights movement, ostensibly on anthropological authority. The new racist paradigm accepts anthropological demonstration that races are not biologically real, but systematically ignores the corollary that cultural constructions have real-world consequences. Race is dismissed and racism is excluded from public discourse. Special cultural histories are ignored. Baker challenges anthropologists, both biological and cultural, to enter the public arena, questioning the morality and scientific credibility of 'government-sponsored racism' (p. 6). Anthropology's own ethical standards, at least within the Boasian/Americanist paradigm, seem to demand such a role.

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Mathematics and Logic

REVEL NETZ, *The Shaping of Deduction in Greek Mathematics: A Study in Cognitive History*. Cambridge: Cambridge University Press, 1999. xviii+327 pp. 67 figures. £40.00/US \$64.95. ISBN 0-521-62279-4 (hbk).

Historians of ancient Greek mathematics have traditionally focused on the propositions or logical content of the argumentation found in the numerous treatises that have survived from antiquity. In this book, Reviel Netz breaks with this scholarly tradition by concentrating on the form of the mathematical argumentation found in these treatises rather than its content. The results are quite surprising and well worth the critical attention of any professional historian or general reader who is interested in ancient Greek mathematics. Indeed, this is an important, pioneering work that is bound to change the way in which we view this subject.

The basic idea in Netz's analysis is that careful study of how ancient mathematical argumentation or deduction is presented will disclose valuable information about the practices of the ancient mathematicians themselves, practices that constitute the implicit or underlying part of what it was to do mathematics.

Netz begins in chapter 1 with the use of lettered diagrams and the familiar but inadequately appreciated fact that it is common for the written text to introduce letters without specifying them fully or at all. This means, he argues, that the diagram is a necessary part of the proof and cannot be reconstructed from the text in so far as the text takes the diagram for granted. In fact, Netz explains, the ancient Greeks seem to have viewed the diagram as the metonym or characteristic part of the proof that could serve to represent the whole. For Netz, it is important to understand, however, that this whole is a finite, well determined domain of discourse, since the letters used in the diagrams and text are not symbols but indices designating the particular points and so forth that they actually stand near.