legal practice of taking these constraints including insanity-into consideration was the attempt to understand the actions of criminals from their own point of view. The crime committed under insanity thus became an understandable act, and the insane criminal became an individual whose motivation and will were fathomable. Rather than simply labelling the insane with the stereotypes of madness or explaining them away as alien figures, lay culture in the late-eighteenth century was therefore moving toward creating the Foucauldian modern individual in the courtroom: carefully examining the vitiated will of the insane criminal in order to reconstruct and understand his or her mental world.

Eigen's achievement is thus manifold. It will become the standard citation work on English forensic psychiatry before the McNaughton Rules. It has challenged the present orthodox interpretation of the rise of forensic psychiatry, which will no doubt stimulate discussion and further research. Most importantly, it asks fresh and important questions which will command the attention of many historians of psychiatry. Few will fail to benefit from reading Witnessing insanity, following the fine and careful lines of arguments, and pondering on numerous questions invoked by them.

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Lynn Gamwell and Nancy Tomes, Madness in America: cultural and medical perceptions of mental illness before 1914, Cornell Studies in the History of Psychiatry, Ithaca and London, Cornell University Press, 1995, pp. 182, illus., £31.50 (0-8014-3161-1).

The discursive approach adopted in this book is consciously inter-disciplinary, as is manifest by the divergent backgrounds of its co-authors (art historical and historical) and by their declared object of merging images and words as discourse. The authors have clearly aimed at engaging with a more general

readership, not just with professional historians. In this intent the book succeeds well, and the authors are wise to concentrate on changing and differing "perceptions of mental illness", rather than on provision for the care and treatment of mental illness. In this connection, their politically correct agenda of being careful with "the selection and placement of pictures that were racist, sexist, homophobic, or demeaning to the mentally ill" (p. 8), is far from resulting in a sanitized history. Rather, the authors address important racial, social and sexual ideologies that shaped peoples' perceptions of mental illness throughout their survey, and they remain thoroughly committed to an account of America's psychiatric history that fully respects its cultural, ethnic and sexual diversity. The book ranges widely and intelligently through American history, from the seventeenth century to the eve of the First World War. Of necessity this means that the authors have been highly selective in their analysis, and that their account is at times rather superficial and question-begging. It may seem regrettable that the book is anchored by a minimal amount of references (all embedded, as inconspicuously as possible, in the text) and by a very cursory bibliography, but this also helps to ensure a "popular" feel to the narrative.

The book is lavishly illustrated, with almost 200 black and white and colour illustrations. The authors deserve particular credit for unearthing a host of images unfamiliar to historians or previously unpublished. Their approach and use of disparate sources often throw up unexpected insights, as when they reveal that those cherished items within our junk food culture, cornflakes and coca-cola, were medicalized in their original marketing, the former as prophylactic health food and the latter as an "ideal brain tonic and sovereign remedy for headache and nervousness" (pp. 112-13 and 139, and Fig. 2.80). Some of the images are so powerful that they may almost be left to speak for themselves, as with Buchanan's medical map of the female body anachronistically imposed on Praxiteles'

Aphrodite of Knidos, which identified the reproductive organs as her "region of insanity" (Fig. 2.76, p. 108).

Over-generalizations and the odd inconsistency are inevitable in a book that ranges so far, and many minor criticisms might be made of some of the authors' arguments, which they often lack space to fully substantiate (e.g., the assertion that the Enlightenment placed new emphasis on individual responsibility for health, but was also defined by its "faith in institutions to cure society", p. 20; or that "interest in ... heredity as a factor in mental illness was prompted in part by a growing disenchantment with asylum medicine", p. 121). Sometimes the choice of images might also be questioned, whether on grounds of representativeness, relevance or repetition, as with the three illustrations from the American Shakespeare (Figs 2.2-3 and 2.41-43, pp. 39-40 and 78-9) and three photographs of nurses exercising at Pennsylvania Hospital. (See also, Figs 2.14, 2.16 and 2.63, pp. 51, 53 and 97). There is an overwhelming predominance in the first two sections of references to source material from Massachusetts and Pennsylvania. More major failings are to be found in the frequently uncomfortable merging of art historical and historical approaches. The authors fall too often, perhaps, away from their central subject—cultural shifts in conceptions of madness-into rather tenuous discussions of social history and art history, as in their accounts of neo-classical and romantic painting and slavery (e.g., pp. 19, 97 and 100-3). It is also remarkable that there is no discussion of contemporary theories of perception, such as the sensationalist approach to human psychology, that were so important in shaping how mental processes and the mentally ill themselves were seen. While the jacket blurb claims that views of the mentally ill and their families themselves are addressed, in fact the book's focus is overwhelmingly on medical, artistic and educated perspectives.

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Herbert A Neumann, Yvonne Klinger, Knochenmark und Stammzelle, Der Kampf um

die Grundlagen der Hämatologie, Ex Libris Roche, vol. 1, Berlin, Blackwell Wissenschafts-Verlag, 1994, pp. viii, 171, illus., DM 98.00 (3-89421-192-0).

The history of scientific haematology originates in the increase in experimental and causal research in the second half of the nineteenth century. Inspired, among other things, by microscopic observations of the hepatic embryonal haematopoiesis of the anatomist Rudolf Albert von Kölliker (1817-1905), which were published in 1847, scientific discussion was first of all focused on the localization of haematopoiesis. With the increasing improvement of histological staining techniques, numerous studies of different haematological cell lines in the spleen, liver and bone marrow could be made, but their exact classification was insufficient at that time. In 1867, it was Kölliker again who described cells containing nuclei in the bone marrow without, however, identifying them as immature erythrocytes. In 1868, shortly before his Italian colleague Giulio Bizzozero (1846-1901), the pathologist Ernst Neumann (1834-1918) from Königsberg finally published the first description of the haematopoietic function of the human bone marrow.

After publication, the pioneering work of Neumann was corroborated by Claude Bernard in a lecture to the Paris Academy of Sciences in 1869 and by a citation in the fourth edition of the Cellularpathologie by Rudolf Virchow in 1871. The scientific controversy about the localization of haematopoiesis and the function of bone marrow would very soon lead to a new argument, to a methodical and polemical "dispute of everybody against everybody" (Arthur Pappenheim), over the question of the unitary or dualistic nature of the hematopoietic precursor cells in the bone marrow, a controversy which lasted for years and in which Ernst Neumann again mediated.

It is remarkable that Ernst Neumann's work about the localization of haematopoiesis and the function of bone marrow was not mentioned in