## Mental Disorder in Time and Place

**Madness in Society.** Chapters in the Historical Sociology of Mental Illness. GEORGE ROSEN. University of Chicago Press, Chicago, 1968. x + 337 pp. \$5.95.

Since the death of Henry Sigerist in 1957, George Rosen has been our most prominent and determined practitioner of a medical history based on the assumption that medicine is a social function, part of a complex social system, and must be seen in this context. In this latest book, Rosen has departed explicitly from most traditional models for writing the history of psychiatry. The present work is, as Rosen puts it, "concerned with the historical sociology of mental illness, not with the history of psychiatry. [Its] central focus is not the thought and practices of medical men in dealing with phenomena of mental disorder as a medical problem, but rather the place of the mentally ill, however defined, in societies at different historical periods and the factors (social, psychological, cultural) that have determined it.'

Within this broadly inclusive framework, Rosen discusses, among other topics, the status and treatment of the mentally ill in the ancient world, mass psychic phenomena such as the dancing manias and witchcraft persecutions, the influence of rationalism in the 17th and 18th centuries, 20th-century trends in regard to public health and mental health, the "psycho-pathology of aging," and attitudes toward the role of civilization and urbanization in the causation of mental illness. These are an impressively disparate group of subjects, and in most areas Rosen has been necessarily a synthesizer, yet a synthesizer of scope and imagination. He demonstrates an extraordinary mastery of the secondary literature in at least half a dozen fields; only an experienced and humane scholar could have written this book. That it is as much an exposition of needs and opportunities for inquiry as a definitive treatment of its subject is essentially a reflection on the state of the art and not an indictment of the author. As Rosen suggests in his preface, these studies are intended simply as "examples of a method and a point of view which have not hitherto received the attention they deserve."

Rosen nowhere constructs a formal model ordering the cultural variables that should be considered in understanding the situation of the mentally ill at any particular place or time. He succeeds, however, through dozens of examples, in illustrating his interpretative framework with unmistakable clarity. Rosen's primary assumption is that mental illness is (at least on one level) defined culturally, that the mentally ill find forms and content for their delusional systems within prevailing values and assumptions. He assumes as well that any factor broad enough to change the general direction or intellectual configuration of a culture-acculturation phenomena, for example, or the growth of such trends as rationalism-can cause mass psychic phenomena and possibly contribute to the etiology of individual psychopathology. From the point of view of the health professions, Rosen argues, one must understand explicit ideas of causation and therapeutics not as a part of some internally logical intellectual development but as very much dependent upon social values and attitudes generally. (The growing assumption in the 19th century that urbanization and civilization could cause mental illness, for example, thus becomes a means of criticizing, understanding, and controlling an increasingly unpalatable environment.) These assumptions will, I think, find few critics; they are, I believe and hope, becoming more and more accepted among workers in mental health.

Though one can only applaud the author's social commitment and the breadth of his interpretative vision, it must be confessed that the book itself has problems. The most important stems from the fact that these are essayseight of the ten having appeared previously-and simply do not have the architectonic strength of a more tightly organized and argued book. Unity stems from the author's point of view and his ability to assimilate a large number of events and disparate materials to it, not from the concerted structuring of an argument. After the first two lengthy chapters on the ancient world (the only two sections previously unpublished, which do read as though they were the beginning of a book describing changing historical attitudes toward and manifestations of mental illness) the essays become somewhat random in their interrelationship and marshaling of data.

It is difficult to sustain a categorical argument against the collection of essays into book form; and I do feel gratitude to the author and to the University of Chicago Press for having brought these

imaginative articles together and made them available to a wider public. I was, however, left with a residual feeling of disappointment after reading the collection. Though agreeing wholeheartedly with the author's general view that mental illness should be seen as a cultural phenomenon, I nevertheless found it frustrating to read chapter after chapter serving, as almost all of them do, principally as suggestive programmatic statements for this same view. This reviewer, at least, is left with the feeling that so broad a statement can be only a first step and that the historian should proceed to the task of working out the texture of these relationships in particular cultures and at particular moments in time. A limited number of case studies would, I think, have been the appropriate way to deepen and strengthen the argument so urbanely presented by Rosen. Indeed it is the only way, for without such "vertical" development statements of program become stylized and unproductive.

CHARLES ROSENBERG Department of History, University of Pennsylvania, Philadelphia

## How Men Move

Walking and Limping. A Study of Normal and Pathological Walking. ROBERT DUCRO-QUET, JEAN DUCROQUET, and PIERRE DUCROQUET, with the collaboration of Marcel Saussez. Illustrated by Marcel Dudouet. Translated from the French edition (Paris, 1965) by William S. Hunter and Jep Hunter. Lippincott, Philadelphia, 1968. x + 284 pp. \$15.

This French handbook is a family project following the early-20th-century cinematographic work of Charles Ducroquet père and of E. J. Marey in the 1870's and later. The authors outline their technique for motion-picture photography of gait (pp. 8-17), in which they use a "glass cage" 15 to 18 feet long, so designed that back, front, top, and bottom views are reflected by mirrors to coincide with profile photographs of walking; they make original use of oscillating gravity goniometers attached to subjects (pp. 16-17); they use Saussez' films of paths traced by lights attached to head, shoulders, wrists, hips, knee, "tip" of foot (exact points not specified); and they give detailed analysis of muscle function and malfunction, apparently as seen in the films, since electromyography for all

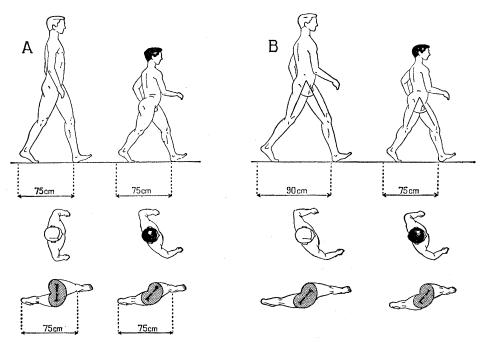
of their large sample of patients would be impracticable. Drawings made from the movies appear on almost every right-hand page, with captions, taking up about half the left-hand page, constituting the entire text. There are no tables, no references, and very few absolute measurements (though their blank for a patient's history [p. 85] shows 38 measures on each, first standing and then walking).

The authors' analysis of normal walking (pp. 20-81, 256-61) stresses detailed shifts in forefoot, subtalar, ankle, knee, hip, and trunk joints (including pelvic and scapular twists) in relation to the line of gravity, with the corresponding muscle actions given for comparison with effects of paralyses, ankyloses, displacements, and amputations. The normal includes effects of boots, high heels, and sloping surfaces. Then follow sections on effects of shortening, and of disorders of foot, knee, hip, vertebral column and shoulder girdle, nervous system, and congenital absence of lower extremities.

These descriptions of limping are valuable comparative material for the teaching orthopedist or general practitioner, for they summarize lucidly and graphically with outline, stick-figure, and x-ray diagrams the locomotor defects and compensations that are not always clear in static textbook words. For example, the importance of the op-

posing lateral abdominal muscles as synergists for gluteus medius and minimus in lateral pelvic balance is vivid (pp. 180-93) in drawings illustrating the Trendelenburg sign (1895), which the authors properly call "sign of Duchenne of Boulogne" (1867). Many textbooks omit the lifting action of the lateral abdominal muscles, which is an important one, though these muscles have to use the pelvis as a modified lever of the second class. Since the authors decided to show largely untreated conditions, they give only a few examples of effects on gait of surgeryfor example, reconstruction of the hip in congenital dislocation, osteochondritis, or arthritis. There is only one example of effect of a femoral head prosthesis (p. 176). This may give the impression that Parisian orthopedics uses joint prostheses, arthroplasties, and bone grafts less than American or British orthopedics does and has more tuberculous joints and poliomyelitis still to contend with.

As John Napier has recently pointed out, bipedal walking is a unique mark of humanity, as distinctive as our brain with its million-feedback control, and evolved as one of the proprioceptivemotor refinements which in evolution helped select this increasingly complex brain. From this standpoint I applaud the page on ascending and descending even though it omits the hip and ankle



Height and gait. "If we watch troops marching quickly, we can see the tall ones in the first ranks preserving a relative rigidity of the torso, whereas the small ones in the last ranks must utilize greatly the pelvic step, and, because of this, compensatory scapular torsion, which gives to the last ranks an agitated bearing. . . ." The prescribed step in the French Army is 75 cm. "The short man [1.6 m] has to use pelvic obliquity to the maximum to enable himself to take a step as large as 75 cm. . . ." [From Walking and Limping]

reactions of mountaineers or hunters (cf. Early Man) on steep slopes. But the analysis of normal gait is confusing on timing. The authors break up the stance phase into three parts (reception, single support, and thrust), and then add the swing phase (equal to single support by the opposite extremity) as if each of these phases took about equal time (plate 18, p. 35). They don't. In their exhaustive studies for design of artificial limbs, H. D. Eberhart and V. T. Inman (Fundamental Studies on Human Locomotion ..., National Research Council, Washington, D.C., 1947; Annals of the New York Academy of Sciences, vol. 51, 1951, pp. 1213-28) diagram 12.5, 37.5, and 12.5 percent, respectively, of the total step time for these parts of the stance phase and necessarily 37.5 percent for the swing phase. Later the Ducroquets say that the single-support (= opposite swing) phase lasts "a very long time" (p. 58), twice the doublesupport time (p. 66), but with increasing cadence an equal time (p. 66). It would help the reader if they gave their own times early in their discussion. Also I think they overemphasize the importance of gluteus maximus in city walking (as opposed to climbing or balance, where it is vital), and they omit the ligamentous limiting of hip extension.

But what is surprising is the lack of mention not only of any American studies (Amar, Cureton, Elftman, Manter. Muvbridge. Steindler, as well as Eberhart and Inman) but of most of the basic mathematical work of Braune and Fischer. The lack of any bibliography at all is incredible in a scientific work, especially since the authors claim priority for French pioneers. Dempster's bibliography in human mechanics (Aerospace Medicine Research Laboratories Technical Document Report 63-123, Washington, D.C., 1963) is a partial substitute. There are some incorrect spellings in translation: giration, gluteii.

The book's strengths outweigh its lacks and omissions. Its ideas are stimulating: how gait reflects psychology, the importance of trunk and shoulder movements, and the functional compensations for change or injury. The reader will enter the mind of the authors' family and must profit selectively from this family emphasis.

J. LAWRENCE ANGEL Division of Physical Anthropology, Smithsonian Institution, Washington, D.C.

SCIENCE, VOL. 164