normalizing social deviants for "the interests." However, he worries about psychiatry's being too cozy with NIMH and therefore susceptible to being drawn into "monolithic" government-sponsored solutions to social problems.

The real solution, a genuine surprise, is *psychoanalysis.* Not by institutional psychoanalysts, because "they" have largely sold out and play the medical game, but by some unknown number of psychoanalysts, presumably laymen as well as physicians, who practice "educative psychotherapy." The educative psychotherapist absolutely disowns any attempt "to control and mold the patient's behavior in specific cultural directions." Moreover, he communicates only with the patient, rejects psychiatric responsibility for the patient, and absolutely refuses to intervene in any decision the patient makes, consequential or otherwise. This therapeutic posture counteracts the "ethnicizing" influence inherent in the Oedipal situation.

Since there are at a minimum several million individuals in chronic or acute psychological distress whose keenly experienced problems will not disappear by being renamed and, apparently, very few educative psychotherapists, Leifer's solution does not seem altogether practical. One can therefore only suppose that the author's intent is messianic; "there are only a few of us," one imagines him saying, "but our gospel has the power of truth and will be carried to all mankind."

It seems rather perverse to say that one largely agrees with Leifer's analysis and yet is dismayed by it. Yes, mental hospitals are terrible places; yes, the logic by which psychiatry operates under the cloak of medicine is faulty; yes, some psychiatrists are prone to make fools of themselves testifying in court; yes, the imperialism of some psychiatrists who pronounce on a wide array of social issues in which they have no competence is amusing in its pretentiousness; yes, psychiatry can be seen by its power maneuvers against deviation and protest as taking the heat off legitimate demands for social justice. Yes, yes, yes!

There is, regrettably, an accusatory quality to the author's rhetoric not unlike that of the stern adolescent who has discovered the hypocrisy of his elders. Of course psychiatry should not impose social controls under the guise of offering medical treatment, just as justice should not be contaminated by politics, education by the personnel needs of big business, science by the power fantasies of the military, and so forth and so on, yet who should know better than Leifer, a student of human behavior, that when self-interest competes with logic, logic almost invariably gives way. People tend to want what they want and to rationalize later, if at all, and since there are so many competing interests and we have not really abandoned social Darwinism as an ethic, the cunning, the merely strong, and the unscrupulous often prevail.

But there is another side: (i) Psychiatrists are not all cut from the same cloth, and they distribute themselves widely with respect to their participation in the "conspiracy" that the author describes. (ii) Currently many more nonmedical specialists in emotional and behavioral problems are being trained than psychiatrists. There is increasing genuine collaboration between these (mainly social scientist) specialists and psychiatrists, in the course of which they use a common language that is not necessarily the "rhetoric of medicine." (iii) There are very many human crises which appear to call for intervention on humanitarian grounds. These crises are not created or sought out by mental health specialists but thrust upon them. The trend—and it is distressingly slow in mobilizing itself, like most social processes—in meeting these emotional and behavioral problems is to offer the suffering person the help he can use at the time rather than what the establishment may think is good for him. Some people do indeed voluntarily seek total shelter from life's vicissitudes for longer or shorter periods; others, and this is shameful, still have it thrust upon them. There is, however, movement in conceptualization and practice with respect to meeting the emotional crises of individuals which goes beyond mitigation, beyond painting flowers on the cell door. Moreover, many current innovations appear not to be drawn in terms of the medical model. The movement is slow, but it will certainly be perceptible by the time Leifer assembles and trains the several hundred thousand "educative therapists" who will clearly be needed if they are to be *the* solution. Moreover, when he recruits as many as 100 they will surely want to form an association, establish training institutes, and develop their own ideology, which will be resistant to external criticism.

As a one-time teacher of sociology, Leifer seems singularly uncharitable to psychiatrists, who are, by and large, not really malicious but, like everyone else, closely confined in social structures and processes from which they cannot extricate themselves with any ease. By the same token, social change is best viewed as a process in which changes are not deliberately caused, either by criticism or affirmative proposals, but simply emerge from the countless limited but deliberate efforts of individuals and groups, the many accidental contributions of people who were aiming at something else, and the purely fortuitous effect of events no one foresaw.

One is grateful to the author for his sharp perceptions but less than certain what we are to do in consequence of them. What is the clear and present danger of which he warns us? For a hundred years or so psychiatry enjoyed a monopoly position in dealing with individuals with obtrusive disorders of thought and behavior, but its area of interest was narrowly defined and the number of clients relatively small. Now that we are entering an era in which not only the government at all levels but other institutions as well are becoming significantly involved with how citizens feel about themselves and others—their degree of psychological satisfaction, if you will—the monopoly of psychiatry is rapidly evaporating. There are many competing models for "helping," if one prefers that rubric, or "social control," if that is the concern one has—some of which may be more insidious than the medical model despite their being more logically and directly applicable to social behavior.

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Preying Man

Prehistoric Animals and Their Hunters. I. W. CORNWALL. Illustrated by M. M. Howard. Praeger, New York, 1968. 216 pp. $7.50.

Recent discoveries have extended the fossil history of the hominids back to some 14 million years ago, but so far we are little informed about the mode of life of such early forms, although there have been reports of smashed animal bones in East African deposits of that age, interpreted as possible evidence of prehuman activity.

From the stage of *Australopithecus*, however, we find definite evidence of hominids' practicing hunting, living off the land in the steppe or bush environments in East and South Africa; and the dependence of man on his game was to continue for upwards of two million years. At the end it formed the basis for the first flourishing of artistic culture in late Paleolithic times.

The interaction between man and beast forms the theme of I. W. Cornwall's book. The author traces the history of hunting from its early beginnings: the australopithecines felling small game with the aid of hurled rocks and fashioning the first wooden spears by whittling a stick to a point, using a pebble chopper.

Although hunting is mainly for food, many other materials can be got from a kill. Antler and bone have the most varied uses, from earth-moving picks made out of wapiti antlers to drinking vessels from human skull vaults. The role of textiles is played by hide, hair, sinew, and guts; then there are teeth, shells, dung, gall, scents, and so on: Cornwall finds enough such uses to fill a chapter.

The environment and the chronology of the story are set forth in introductory chapters dealing with geological data, with the biotopes in which Pleistocene man lived, and with the faunal communities of which he was a part. One-half of the book is made up by a review of the animals that man hunted (or that on occasion may have hunted him), with numerous examples of fossil kill sites.

One topic that might well have been included is the possible role of hunting in the extinction of many larger mammals at the end of the Pleistocene. The possibility of hunting as a factor is mentioned with regard to the big extinct American edentates, but otherwise the author steers clear of the current controversy between adherents of the "hunting overkill" theory and adherents of the "climatic change" theory.

The zoological account is occasionally faulty as regards peripheral matters (for example, the incorrect statement that the dingo and the Australian aborigine were the only placentals in Australia before Captain Cook) but is authoritative and information-packed as far as the main theme is concerned. Systematists may not agree with all of the details of nomenclature, especially as regards the Osbornian classification of the Proboscidea, as the author notes. In a book that derives so much of its charm from a skillful presentation without recourse to unnecessary technical terminology, the high-flown Osbornian names seem somewhat out of place.

One of the most important factors in the life of a hunting tribe may well have been the omnipresent hyena, which ranged from the tropics to the loess steppes of glaciated Europe. Many a kill probably was snatched away by a hyena the moment the owner's back was turned, to say nothing of the warlike qualities of the big cave hyena or its monstrous predecessor the short-faced hyena. More than a century ago, Dean Buckland stated that the great accumulations of bone in Kirkdale Cave, Yorkshire, and many other caves resulted from the activities of hyenas; Cornwall adheres to this classical theory but notes that the time is ripe for a fundamental study of the function and place in Pleistocene animal communities of the cave hyena. In another school of thought, man rather than the hyena is held responsible for the amassing of bones in caves. Recent studies of the dens of living East African spotted hyenas (see A. J. Sutcliffe, "Adaptations of Spotted Hyaenas to Living in the British Isles," Bulletin No. 31 of the Mammal Society, April 1969) have, however, proved definitely that hyenas do collect large quantities of bones in their lairs.

The peculiar idea that accumulations of hyena bones in some European caves (the number of individuals may run into thousands) were due to hyena-hunting man has also been voiced. As Cornwall points out, there is one example of hyenas being stuffed for the table—in Egyptian tomb-reliefs. But, as he also notes, the practice does not seem to have persisted, and apparently was voted a failure by the Egyptian gourmets. Probably the same would apply to the Paleolithic hunter, who—as shown in this book—lived in a land of plenty, as far as appetizing game was concerned.

The text, perhaps aimed primarily at students of prehistory, also gives basic information on Pleistocene geology and chronology and a useful survey of the Pleistocene fauna, with special emphasis on the larger animals; this makes it a useful reference work for every student of the Pleistocene. The illustrations, by Marjorie M. Howard, depict hunting methods and cave paintings and are instructive and well selected. There are a brief bibliography and a good index. The easy-flowing, often witty style of writing makes pleasant reading and should make the book attractive also to a lay audience interested in nature and in hunting.

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Biogeographic Field Study

The Kodiak Island Refugium. Its Geology, Flora, Fauna, and History. THOR N. V. KARLSTROM and GEORGE E. BALL, Eds. Published for the Boreal Institute, University of Alberta, by Ryerson Press, Toronto, 1969. xiv + 266 pp., illus. $10 Canadian.

This short book is the record of a biological expedition to Kodiak Island, written mainly by the participants—Thor N. V. Karlstrom, geologist, Eric Hultén, botanist, George E. Ball and Carl H. Lindroth, entomologists, and Robert L. Rausch, mammalogist.

Kodiak Island is separated from the mainland of southern Alaska by Shelikof Strait, about 50 kilometers in width. Karlstrom had shown previously that part of the island remained ice-free through the last two Pleistocene glaciations, when most of southern Alaska was heavily glaciated and shelf ice extended seaward beyond it. It thus provided a possible refugium where land and freshwater biota survived the glaciation, separated from ice-free Beringia by some hundreds of kilometers and much farther still from the main continental areas south of the ice sheet. The situation presented an interesting opportunity: an ice-free area, established as such on geological grounds, with biotic consequences perhaps remaining for study; whereas more usually a refugium is a hypothesis only, an inference from the disjunct ranges of a number of species. The refugial area must have had a pronounced arctic-alpine climate during glacial times.

The study showed that a few of the flowering plants, for instance *Draba alpina* and *Saxifraga Eschscholtzii*, and also a few species or forms of carabid beetles, the most closely studied animals, do in fact have disjunct and rather limited ranges in southern Alaska at the present day. These species are all high boreal or tundra forms, and the