

open stands of conifers and aspens; the Eastern Deciduous Forest Province, the largest of the provinces in area, which supports oaks, maples, elms, ash, and other broad-leaved deciduous trees but only pockets of conifers; the Coastal Plain Province, with fire-resistant yellow pines the dominant tree and hardwoods occupying only certain habitats; the West Indian Province, which occurs only in southern Florida and is exemplified by the Everglades; the Grassland Province of central North America, with tall grass, short grass, and mixed grass prairies characteristic of zones receiving successively less annual rainfall; the Cordilleran Forest Province, with marked zonation shown by the various conifers at different elevations; the Great Basin Province, with sagebrush, greasewood, and shadscale as its dominant shrubs; the California Province, with a Mediterranean climate and a complex variety of plant assemblages and soil patterns; and the Sonoran Province, which is confined to the southwestern part of the United States and adjacent Mexico, an area of hot desert where trees are small or are supplanted by shrubs, where there is much unoccupied ground during the dry season, and where annuals are conspicuous for short periods following rains.

Scores of excellent halftone illustrations are distributed throughout the book, and the photographs from which they were made were chosen meticulously. Some show details of fruit, seed, or flowers, such as the cover on this issue of *Science*.

This book is much needed in the American literature dealing with the plant geography of the continent. The authors are to be congratulated on the neat completion of an arduous task. Among botanists and ecologists the task surely will not be a thankless one.

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Mental Disorders of the Aged

Geriatric Psychiatry. Kurt Wolff. Thomas, Springfield, Ill., 1963. x + 125 pp. \$5.75.

This book is the fruit of many years of practical experience in the treatment of psychotic geriatric patients. It is not a textbook of geriatric psychiatry. It does not deal with the symptomatology,

the course, and the outcome of the mental disorders of the aged. It deals mainly with individual and group psychotherapy of aged patients hospitalized in psychiatric institutions, most of them chronologically old schizophrenics.

Aging is considered a highly individual phenomenon. One specific formula cannot be applied to all people, and the patient and his treatment should be handled by a coordinated approach of the psychiatrist, the internist, and the general practitioner. The biological, psychological, and sociological aspects of aging should be considered.

In individual psychotherapy, Wolff uses the "brief psychotherapy" of Goldfarb and finds it most helpful with patients who present management problems and depressive features. Individual, psychoanalytically oriented psychotherapy was found helpful to 10 out of 14 patients. Extensive case histories and reports of the individual sessions are presented as examples of successful treatment.

Wolff has used group psychotherapy since 1954. During a period of 6 years, he treated 110 geriatric patients by this method in three psychiatric hospitals. The majority (70 percent) of the patients were schizophrenics and had been hospitalized for an average of 20 years; the remainder were organic cases (the average age, 63 years), and 40 were females. Forty percent improved and could be discharged from the hospital. The improvement was evident within 3 months after the group sessions were started. Six months of treatment was necessary to secure a "better emotional equilibrium." Control studies with patients treated by occupational or recreational activities alone revealed the superiority of group psychotherapy as a therapeutic tool. It was also found to be superior to individual psychotherapy, because elderly patients are less alarmed by group treatment than by talking to a therapist in individual sessions.

Countertransference could become a problem, because the therapist may be reminded of his own father or of another important figure in his past life by the patient. Some insight can be achieved, but deep insight is not only impossible, but also undesirable, because it is disturbing to the elderly patient and may increase his symptoms. Support rather than insight is indicated.

Other forms of therapy are dealt

with rather briefly by the author. Among these, he is mainly concerned with the use of psychopharmacological drugs in treating agitated, depressed, and withdrawn and apathetic patients, and "milieu therapy"—namely occupational therapy, recreational activities, music, and industrial therapy, educational therapy, and physical and hydrotherapy, and habit training.

In the concluding chapter, entitled "From custodial care toward rehabilitation," the author presents his basic philosophy. The psychiatrist should be able to feel that death is not a cause of fear, but a meaningful rest. He then will be able to really understand his geriatric patients and to show them the way out of emotional conflicts toward freedom, calm, and serenity. The ultimate goal is to restore and keep up the physical strength and vigor of the geriatric patient and to help him regain his emotional equilibrium. The aged patient must again become part of humanity, adjusted to the problems of the progressive world, with faith in himself and in his future.

Those interested in geriatric psychiatry will find in this book many valuable practical hints for the individual and group psychotherapy of aged psychotic patients.

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Chemistry

Friedel-Crafts and Related Reactions. vol. 2, parts 1 and 2, *Alkylation and Related Reactions*. George A. Olah, Ed. Interscience (Wiley), New York, 1964. Part 1, xxx + 658 pp.; part 2, xxvi + 704 pp. Illus. Set, \$50.

This is the second volume of a four-volume treatise on the subject. The titles of the sections are "General Aspects," "Alkylation and Related Reactions," "Acylation and Related Reactions," and "Miscellaneous Reactions." It is the stated hope of George Olah, the editor, that the complete series will be published by the end of 1964.

Volume 2 represents a major effort in itself, comprising some 1400 pages and covering not only alkylation of aromatic and related systems, but alkylation of paraffins, haloalkylation, hydrogen exchange, and numerous other related reactions, including paraffin hy-