In a virtuoso performance, J. S. Griffith contributes a succinct chapter on electron spin resonance in certain biologically important iron compounds and a fascinating one on information theory and memory.

The overall effect of the book is that of a delicious smorgasbord. It is unfortunate that the cost of the menu ($19.50) will limit the number of diners at this restaurant. Isn't it time for all of us to recognize the fact that the future belongs to the mass-produced journal and to the mass-produced textbook rather than to a group-written reference book with inarticulated contributions and a limited press run and sale? The material in this book deserves a far better fate; I hope that those parts which have not yet been published in journals will eventually appear in a more accessible form.

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Animal and Human Nutrition Series

More than 800,000 Americans die each year from diseases of the heart and blood vessels, and millions more who struggle to do their daily work are handicapped by afflictions of the cardiovascular system. Many of these mortalities occur when the individuals are at the peak of their productive powers and in the age range of 35 to 65 years. The two diseases that account for most of the cardiovascular deaths are coronary heart disease and high blood pressure. In the past both were regarded as inevitable consequences of an aging population, but today a new and dynamic approach considers them the result of factors in the human environment that interact in susceptible individuals. The key causative environmental factor is the food that man eats. In the past, deficiencies of food produced disease. Today, overconsumption of certain foods and food additives are believed causative of many cardiovascular disorders.

Eörs Bajusz's book, **Nutritional Aspects of Cardiovascular Diseases** (Lippincott, Philadelphia, Pa., 1965. 264 pp., $12), is concerned with the role of nutrition in the genesis of cardiovascular disease. Bajusz appropriately stresses two dietary ingredients: (i) fatty foods derived from animals (saturated fat and cholesterol) that are important in the causation of coronary heart disease, and (ii) minerals in the diet that are significant in the problem of high blood pressure. The author, an adherent of the Selye school of thought, interweaves dietary mineral intake with stress and hormonal output from the adrenal gland as related factors in the causation of heart disease.

A classic example of his discussion might be the man with coronary heart disease who dies suddenly while shoveling snow from his driveway. This man has had circulatory impairment for years. Large atherosclerotic plaques in the coronary arteries impede the flow of blood that supplies the heart muscle with nutrients and removes the end products of metabolism. Two problems exist in such cases: the atherosclerotic plaques that are presumably derived from a lifetime of excessive intake of animal food, and the cardiac standstill or necrosis which occurred during snow shoveling and which led to sudden death. Bajusz suggests that both problems are preventable. Human atherosclerosis may be prevented by a reduced intake of animal food and a change in the amount of fat consumed. Particular emphasis is placed on the electrolyte imbalance that occurs in heart muscle cells. Perhaps the stage was set for sudden death by a previous high dietary intake of sodium and a low intake of potassium, ions most important in determining the cellular levels of potassium. Other dietary minerals important in cardiac disease may be magnesium and chloride.

The hypotheses put forth in this book are supported by a wealth of experimental data, many derived from the author's own investigations. The evidence that dietary factors causes atherosclerosis and coronary heart disease in man is strong and well supported by data from both animals and man. The evidence that dietary minerals cause cardiovascular disease in man is more circumstantial and is derived largely from animal experiments. As the author states, "the most conspicuous weakness of the present volume is its failure to present . . . data" providing direct proof that dietary changes in sodium and potassium would prevent certain heart diseases in man. Such investigations should be done in the future, just as there are now many human trials of altered dietary fat and cholesterol content aimed at changing coronary heart disease mortality. Bajusz has offered a refreshing challenge.

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Mammalian Genetics

In this book, **Genetics of the Norway Rat** (Pergamon, New York, 1965. 814 pp., $30), Roy Robinson has performed a useful service in bringing together an impressive bibliography on rat genetics, with chapters on pelage and color, growth and metabolism, reproduction, endocrinology, skeleton and viscera, sense organs, nervous system, hematology and immunogenetics, pharmacogenetics, disease resistance, tumorigenesis, learning and behavior, chromosomal variations, named unit genes and inbred strains, changes during domestication, and failure of attempts to prove acquired inheritance. The longest chapter (168 pp.) is concerned with psychogenetics, the second longest (57 pp.) with growth and metabolism.

Some of the information, particularly certain studies of growth, reproduction, and susceptibility to dental caries, and recent studies of behavior, has come from carefully designed and performed genetic experiments. These are paraphrased fully and faithfully. Other information has come as a by-product of the use of laboratory rats of varying genetic origin in a wide variety of experiments and assays. Robinson has located and recorded an amazing number of entries of this second type. Some of these are of great potential value—for example, as evidence of genetically controlled metabolic differences disclosed in biochemical and pharmacological experiments. Others are only of anecdotal interest. Both types are reported through brief summaries, frequently lacking in sophisticated genetic insight. However, where original findings appear to conflict, good attempts are made to reinterpret and collate.

A chapter mistitled "Cytogenetics" provides a check list of gene symbols, including mutants at 34 genetic loci plus 15 antigenic differences representing alleles at an unknown number of loci. In this same chapter there is a list of 57 established inbred strains, with brief descriptions of rec-