training is meager and unsatisfactory. It is possible for a student to reach a late stage of graduate study without being challenged to any strenuous intellectual exertion. There is general methodological weakness. Large amounts of time are spent unprofitably in assorted and often redundant lecture courses. Rare is the student who enjoys a well-guided, progressive sequence of research experience. It takes nearly 10 years for a student to progress from the bachelor's degree to a Ph.D. in sociology. The opportunities for postdoctoral study and internship are extremely limited. Many graduate students are less interested in learning to be scholars and scientists than in learning how to earn a living in the nonacademic world. In fact, these strictures prompt one to suggest that the book might more accurately have been titled "The Noneducation of Nonsociologists."

These criticisms are undoubtedly well founded and cannot be ignored. Yet Sibley would be the first to admit that they tell only the more gruesome side of the story. As director of the Social Science Research Council's fellowship programs, he has personally participated in the identification and encouragement of many brilliant, outstanding sociologists.

Despite this report, there are ample grounds for remaining sanguine about the future of sociology. Sibley's book itself attests to the vigor of a discipline that seeks to face up to its limitations and to explore avenues of self-improvement. In sociology, as in other fields, the pygmies who stand on the shoulders of giants acquire themselves, with the passage of time, more gigantic proportions.

HARRY ALPERT
Center for Advanced Study in the Behavioral Sciences

Agricultural Economics

Transforming Traditional Agriculture. Theodore W. Schultz. Yale University Press, New Haven, Conn., 1964. xiv + 212 pp. $6.

In this book, T. W. Schultz investigates one of the most significant and complex economic problems of our time—that of transforming the niggardly agricultures of low-income countries into productive vehicles for economic growth. Some of his findings are likely to have an important influence on future discussions of growth problems and policies in underdeveloped nations.

In the opening chapters, Schultz identifies and describes the problem, formulates a conceptual model of traditional agriculture, and challenges a number of widely held beliefs about agriculture in low income countries. He does not accept the view that substantial income gains can be had by achieving a more efficient allocation and use of existing agricultural resources. On the basis of evidence obtained from studies of agricultural communities in Guatemala and India, he concludes that traditional agriculture is quite efficient in producing income from available resources.

Undoubtedly, the potential gains from tightening allocative efficiency are not large in comparison with those from other sources of income growth. Moreover, it provides, at best, only a one-shot addition to income. But Schultz may have overstated the case somewhat. More evidence is needed. Comparing average implicit prices with market prices on a sample of farms does not necessarily offer a rigorous test because of possible variation among farms.

Schultz also questions the belief that the marginal output contribution of the labor force in low-income countries is zero. Some economists have claimed that as much as 25 percent of the agricultural labor force could be reallocated to nonagricultural activities without reducing agricultural production. In testing this proposition, Schultz presents estimates of the output effects of the reduction in the agricultural work force in India during the influenza epidemic of 1918 and 1919. The Indian experience and other fragmentary evidence leads him to the conclusion that the marginal output contribution of labor in traditional agriculture is positive even though small. A marginal contribution greater than zero is consistent with a positive opportunity cost in terms of leisure, begging, and nonagricultural work activities. But further analysis of what happens to the natural increase in labor force under conditions of traditional agriculture might prove enlightening.

Probably the most significant ideas in the entire book are those related to the investment process. Unquestionably, investment is the key to the transformation of traditional agriculture. But what kinds of investment? In answering this question, Schultz plows new ground. After analyzing the sources of permanent income streams and the evidence provided by the studies made in Guatemala and India, he concludes that increasing the stock of reproducible inputs which currently characterize traditional agriculture will add little to real income (output). The reason is that the return on investment in traditional agricultural inputs is low.

This differs from the widely held view that the stock of reproducible capital in low income countries is small and that the return on investment is therefore high. A small stock of reproducible capital, however, will not make for a high return, if the demand is small. The demand will be small if the marginal contributions of additions to the stock are meager. With a low return on investment in traditional inputs, the incentive to save is weak, and this restrains the formation of new agricultural capital. But what about the influence of income and population on capital formation? These variables are conspicuously absent from Schultz's analysis.

As he sees it, the transformation of traditional agriculture requires mainly investment in human resources and in modern forms of material inputs. This means devoting resources to improving the knowledge, skills, health, and similar aspects of the life of farm people and to developing and producing more productive types of fertilizers, seeds, breeding stock, and the like, as well as the knowledge of how to use these new capital inputs. For the most part, these inputs have to be developed because few modern agricultural factors available in high-income economies are appropriate for the conditions of traditional agriculture. And this requires investment in agricultural experiment stations with a full array of scientists and needed equipment.

Schultz has much to say about organizing agriculture for economic growth. He argues that absentee arrangements are generally inefficient because of the disassociation of incentives, information, and control, that the belief in the economies of the gigantic farm is not supported by evidence, and that there is no

adequate substitute for a system of product and factor prices as a means of providing decision makers with needed economic information. Schultz recognizes the existence of cultural and political factors in low-income countries, but he sees them as influencing underlying economic determinants.

The book should be of interest to a wide range of scientific specialists, policy makers, program administrators, and others concerned with agricultural development in low-income countries. Certainly it will encourage much needed research. While most of the material is likely to be understood by the well-informed noneconomist, a few sections have a heavy sprinkling of technical economic jargon and may pose some problem for the person not trained in economics. Professional economists as well as others should find the book highly stimulating and rewarding.

DONALD R. KALDOR
Department of Economics,
Iowa State University, Ames

Artificial Communities

The Javanese of Surinam: Segment of a Plural Society. Annemarie de Waal Malefijt. Humanities Press, New York, 1963. x + 207 pp. Illus. $5.50.

Among the one-quarter million inhabitants of Surinam (Dutch Guiana) are 43,000 Javanese, descendants of indentured laborers who were brought to the colony between 1891 and 1939. Like the Chinese and East Indians before them, they were introduced to work on plantations. During the course of the present century, the government has favored the development of small-scale farming on family holdings. Plantations, which accounted for 90 percent of agricultural production in 1900, have yielded to small-scale farming, which now accounts for an equal proportion of total agricultural output. One-third of the original Javanese migrants returned to their homeland, and the others have become small farmers in tropical America. The author studied two settlements of such farmers, one settled by a rice-farming population of about 1200, the other inhabited by some 800 people carrying on mixed farming and fishing.

The cultural adaptation portrayed is strongly egalitarian in character. Households produce sufficient food to answer basic subsistence needs. The well-filled paddy box is the central symbol of security. Money buys desirable objects, but not status. Division of labor is based on ascribed categories of age and sex, but achieved positions are few and part-time only. Headmen are appointed by the District Commissioner, but the office carries with it no salary and no formal legal power. Kinship is bilateral, and kinship terms are extended easily to include many individuals outside the immediate category of bilateral kin. Relations between men and women seem remarkably balanced. Divorce is frequent and easy, and an individual may thus acquire several sets of affinals during his lifetime. Adoption of children is frequent, with biological and adoptive parents calling each other by sibling terms. Ceremonial centers upon *slametans*, offerings of food shared with spirits in order to maintain essential harmony between the world of spirits and men. The spirit world, like the world of men, lacks status distinctions among spirits.

This egalitarian pattern contrasts sharply with the greater complexity of societal organization in the Javanese homeland. The Javanese migrants lack the well-established political hierarchies found in Java, as well as its sophisticated religious components (*prijaji*). In Surinam the local religious leader, the *ka'um* (who is, in Java, merely the lowest on a scale of religious hierarchy), has come to be the highest and only religious authority. The distinction between true Islamic believers and adherents of the peasant variant of Javanese religion has similarly become attenuated in America. There has also been a loss of some kinship terms, of several of the respect languages characteristic of the homeland, and of some forms of etiquette governing the relations between parents and children.

At the same time the Javanese constitute a well-demarcated cultural segment within the social structure of the country as a whole, a segment that is at a comparative disadvantage in its access to trade, to education, and to political power. These are largely in the hands of Creoles, Chinese, or East Indians (Hindustans). The Javanese, cut off from channels that would connect them with an economic life other than rice-farming and fishing or with resources of power and information, have strongly turned in upon themselves. Acculturation is limited; the acquisition of "western" goods is equated with desertion of the Javanese way of life. Strong shame sanctions threaten the individual with social and spiritual isolation should he wish to break with traditional patterns.

Thus, in the situation depicted by the author, traditional Javanese institutions that function at the level of community and nation seem to have been sloughed off. The strongly cohesive *desa* community of the homeland has been replaced by the much weaker tie of allegiance which a settlement maintains with its headman, a tie that is dependent for its strength on the purely personal qualifications of this official. At the same time, institutions on a national level are clearly beyond the grasp of the subsistence-oriented Javanese small farmer. However, this weakening of hierarchical institutions seems to have been compensated for by a proliferation of family-level institutions and by a condensation of the Javanese cultural group into a well-defined and well-defended social segment.

The proliferation of family-centered forms appears not only within the bilateral kindred but in the wide extensions of fictive kin terminology prompted by any conditions of common fate or by any other emotionally charged experience. An example of this is the brother terminology that obtains among people who were shipmates in the original migration. [A very similar picture of the simultaneous disruption of hierarchies and the accentuation of fictive ties has been noted for another migrant population, the East Indians in Fiji—see Adrian Mayer's *Peasants in the Pacific* (1961).] At the same time, however, it is the cultural group as a whole, rather than the community, which becomes institutionalized as a protective shield raised in defense of the traditional way of life.

This book, well written and well presented, is a welcome addition to the growing literature on "artificial" communities contrasted with the indigenous culture growths more traditionally studied by anthropologists. This literature will become more important as men increasingly strive to remake their societies through conscious efforts. The plural societies produced by plantation owners should be recognized as one of the first products, however imperfect, of such conscious planning. Perhaps plural societies represent one form such