

THE GEOGRAPHY OF HUNGER. By Josue de Castro. Little, Brown and Company, Boston. 1952. 337 pp. \$4.50.

Reviewed by MARSHALL CRANE

We have become accustomed, these days, to taking terrifying statements and predictions more or less in our stride. But I think even such a hardened character as the citizen of today would consider it a matter for some serious concern if he were told that two thirds of the human race suffer chronically from lack of food. Hunger is a terrible thing.

Few men in the world today are so well qualified to speak on this subject as the great Brazilian scientist, Josue de Castro, head of the UN Food and Agriculture Organization. And he does speak on it, convincingly and powerfully in this unique book on man and his food.

He mentions of course the awful famines which periodically ravish certain parts of the earth, but neither they nor the problems involved in the production of food are the real subject of his book. He writes as well of the equally dangerous and much more insidious "hidden hungers," the often unsuspected deficiencies which come from the lack of the right foods, and which are the direct cause of various sorts of malnutrition and anaemia, of such ailments as rickets, beri-beri, pellagra, scurvy and endemic goitre, and which may be contributing factors in tuberculosis and many other contagious diseases. Dr. de Castro concludes, from definite evidence and official statistics, and from conservative estimates where exact figures are not obtainable, that for every one of us who is adequately nourished there are two who are not.

Has the world at last become too small to feed its teeming millions, as the gloomy Malthus so confidently predicted it would? Every consumer of three meals a day—particularly if he is a disciple of Henry George!—will be relieved to know that the answer is—emphatically No! The author gives estimates from a number of sources that our production of food could be approximately doubled without even turning new soil. And he points out that less than a quarter of the arable land on this earth is in use at the present time.

It seems that for hunger, as for so many of his troubles, man has no one to blame but himself. It is perfectly true that all do not have enough—indeed, only one in three is properly fed—but there is enough and more than enough for all. Dr. de Castro proves conclusively that the problem of feeding mankind is primarily a problem of distribution.

This book would go into the "must read" list even if this admirably clear picture of the vital challenge which faces us today were its whole message. But to the economist, and to every voter who goes to the polls, its most important feature is surely the author's statement of the general thesis that *hunger is the cause, not the result, of over-population.*

It is a scientific fact, too little noticed in the past, and too little applied to the problems of population, that as the level of nutrition—specifically, protein nutrition in animal life—falls, there is an increasing stimulation of the reproductive fertility. As the individual organism is threatened with extinction its life processes respond by exerting themselves to insure at least the continuance of the species. This, says the author, is the real cause of over-crowding. The

control of population, therefore, need not be left to the four grim horsemen.

The force of reason and the evidence of history laid the body of the Malthusian doctrine in the dust long ago, but its ghost still calls. This book comes at an opportune time to exorcise a malignant influence.

All hail to Josue de Castro!

[Following is a letter, not intended for publication, which accompanied Mr. Crane's review of the above book—Editor]

I expected the de Castro tome to be just another dose of agricultural-cum-medical science, perhaps a soil erosion survey, or an eat-your-spinach-like-a-little-man sermon. This sort of thing is fascinating, no doubt, but it does get a little tiresome after the first million words.

There is nothing tiresome about de Castro's "hunger" book, though. For the outstanding point in it is one which truly complements the valid but purely economic argument against the Malthusian doctrine. He shows that the most essential type of malnutrition causes a sort of suicidal fertility reaction in the animal organism, a last gasp attempt to insure the continuance of the species.

A novel theory, at first slight, but really, it is rather surprising that sociologists and population experts have not gotten after it before, for the idea is anything but a new one. Have you ever heard (or asked) the question, "Why in blazes is it that folks who can afford them least always have the most children?" I think so. And farmers and gardeners have been taking advantage of the principle for centuries. Have you never "girdled" a shrub with a piece of wire when it refused to blossom, cutting off, or, rather, slowing up the flow of its food supply through the cambium? If not, take my word for it: It really works.

I remember picking up an over ripe specimen in my tomato patch, one morning back in September, 1950. I cursed perfunctorily, and heaved it out where it would not get underfoot. It made an impressive crash landing in a little piece of waste land, definitely submarginal. But the primal instinct to live is a very urgent one, even in rotten tomatoes. For one of its couple of hundred seeds managed, some eight months later, to find soil enough to sprout in. It was probably four or five weeks old when I first noticed it. To all appearances it was getting along about as well as those which I had set out so carefully in the garden, and mothered with so much toil and fuss. Enough to humble the pride of the cockiest gardener. And this dog-gone vegetable object lesson kept itself alive all through a summer of withering drought, in surroundings which discouraged even the toughest weeds.

Along toward the end of the growing season it still looked pretty healthy, and I took a gander at it to see if there was any possibility of its bearing. I was amazed to find that it was simply covered with fruit. Every branch was loaded, but the fruits were no larger than cherries!

Curious, I showed it to a friend, whose complex of activities includes professional biology as well as amateur gardening.

"Wonderful, isn't it?" he said, laughing. "I'll bet there would be a lot fewer species around today if it were not for that self-protective reaction. Maybe you and I wouldn't be here."

"This dead-end kid finds itself living in a sandbank tenement that ought to have been condemned by the authorities years ago. There aren't even any garbage cans to eat out of. So what? It declares that a state of emergency exists. Living on its slender capital, it makes a last supreme effort. Somehow — don't ask me how — it cooks up a mess of hormones, gets hopped to the eyes on them, and goes into a whacky reproductive orgy to save at least the species from extinction. Self-sacrifice, in spades. I doubt if there are more than six or eight seeds in any of those little berries, and you can bet their germination percentage is way below the seedsmen's standards of quality. But does the parent plant care? Huh! Not a bit. The crisis has been met. The germ plasm is there. Life can go on. Next spring divine Horus will rise again from the sacrificial corpse of Osiris."

I matched his classical reference with a Biblical quote: "But the more they afflicted them, the more they multiplied, and the more they spread abroad," which you will find somewhere in the first chapter of Exodus, in the account of the sufferings of the children of Israel under the Egyptian lash. The same thing could be said of the children of India, Java, or China.

De Castro says in one place:

To concede that the earth sets a fixed, impassable limit to human population is to revert to the old geographical determinism of the times of Ratzel, according to which nature lays down the law while man is no more than a passive pawn in the play of natural forces, devoid of creative will and powerless to escape the crushing authority of his environment. Nothing could be farther from the truth. Man, with his creative and inventive techniques, is well able to evade the coercion of nature, to free himself of the conception of geographical determinism and to transform natural limitations into social opportunities.

Hic jacet Thomas Robert Malthus! Dr. de Castro perhaps flouts the present day scientific fashion, in having a cheerful and optimistic explanation for a social evil, but I will buy him a drink any time he wants it. I am only sorry that my review falls so far short of doing justice to his book. (Indeed, I am afraid I have told you more about it in this letter than in the review!)

MARSHALL CRANE