

BOOKS

THE LIMITS OF THE EARTH

by Fairfield Osborn
Little, Brown

\$3.50

*Reviewed by Arthur W. Galston
Associate Professor
of Biology*

SEVERAL YEARS AGO, Fairfield Osborn wrote a book called *Our Plundered Planet* which shocked many complacent people into the sudden unhappy realization that the physical resources of this earth are not inexhaustible, and in fact are well on their way to depletion in some critical areas. This verbal blow struck by Osborn found its echo in many subsequent books on the same subject by such authors as William Vogt, Robert Brittain, Josué de Castro and most recently by our own Harrison Brown.

Having served his primary purpose of sounding the alarm and awakening public interest in the conservation of natural resources, Osborn next turned to a rather more

detailed analysis of man's food prospects for the immediate future. His intelligent appraisal of this situation is the subject matter of the present book. It is interestingly and warmly written, all the while managing to steer a realistic course between the gloomy viewers-with-alarm and the uncritical visionaries of plenty.

The basic facts are these: There are now 2.4 billion people on earth, and they are increasing at the rate of about 1.2 percent per annum. This means that each year, there are 26 million more mouths to feed than there were the year before; each day 75 thousand more than there were the day before; each second one more than there was the second before. At this rate, the population will double about every 60 years, so that even if we manage to double our output of food in 60 years (an optimistic estimate!), we shall be no better off than we are now.

Furthermore, where we are right now is not so good, since about two-thirds of mankind exists on an average daily caloric intake considered no better than barely minimal. In addition, we are continuing to lose ground, for in the years since 1939, there has been a 12 percent increase in the world's population and only 9 percent increase in food production. Obviously, this cannot go on forever, and so we are brought face to face with "the limits of the earth."

Haves and have-nots

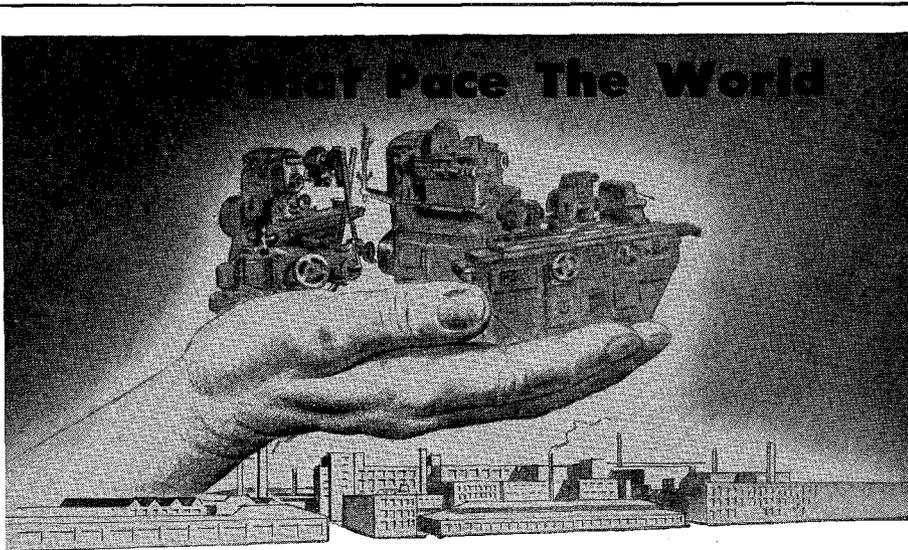
Unlike those who consider the global resources problem from an integrated point of view, Osborn prefers to operate within the framework of existing political and geographic boundaries, and to consider the implications of localized areas of "havenness" and "have-notness." He thus takes us on a tour of the major areas of the earth, considering each as an integrated geographic-agronomic-sociological complex of problems, frequently cast against a revealing historical past.

It never hurts to be reminded that civilizations as mighty as ours have come and gone, or that areas like Greece and Spain, currently barren, denuded and eroded, were once highly productive and fertile. How prodigal can we be of our "endless resources" before we suffer a similar fate? In these days of recurrent dust storms, erosion, forest fires and floods, this question is not an idle one.

East and West

Osborn views the current clash between East and West as more than a conflict of ideology. It is a battle not only for the minds of men but for the resources of the earth which are every day less than they were before. (Why else so much concern over Indo-China?)

If the strength of any political system resides in the long run upon its capacity to provide the basic necessities of life to its people, then war obviously becomes the greatest enemy of all men, whatever the system under which they live. To the extent that capitalist economies give way to socialist or communist organizations of society in times of extreme need, our system will be at a greater and greater disadvantage.



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ENGINEERING AND SCIENCE

that Dr. O'Reilly himself would agree that the lack of attention to birth control given by both national and international public agencies and by our great foundations results not from "fear of creed" but from "fear of creedists".

Dr. O'Reilly discusses continence at some length, and it seems clear that he believes that the proper solution of the world's population problems lies in the direction of restraining sexual activity. I believe that we could join in serious debate as to whether continence is more "unnatural" (or "artificial") than the use of contraceptives.

To be sure, a degree of continence has resulted in lowered birth rates in Ireland, but I seriously doubt that it is either desirable or possible to create such a culture on a worldwide basis. Even in strong Catholic countries such as France and Italy, to what extent does strict continence contribute to lowered birth-rate? Can we imagine a France and an Italy in which populations are

stabilized without recourse to unnatural or artificial means?

In conclusion, I cannot refrain from commenting upon Dr. O'Reilly's accusation that I have resorted to the use of "wild and whirling words". I found the accusation surprising, for I personally considered my description of attitudes and actions concerning contraception to be both moderate and polite. Indeed, as Dr. O'Reilly knows full well, my words were mild when compared to some that have been uttered by his fellow churchmen in opposition to birth control. Here, I refer to Father Daniel A. Lord's reference to women who use contraceptives as "daughters of Joy" and to Father Dominic Pruemmer's statement that "birth control is nothing else than mutual masturbation or unnatural lust."

Such statements indicate that when it comes to the use of "wild and whirling words," I am a novice.

Harrison Brown

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as the economic problems confronting all men become more serious.

Thus, it is not merely a question of how many people can the earth support, but also, how will our economy and society adjust itself to the complex problems associated with cutting a smaller and smaller pie into more and more pieces?

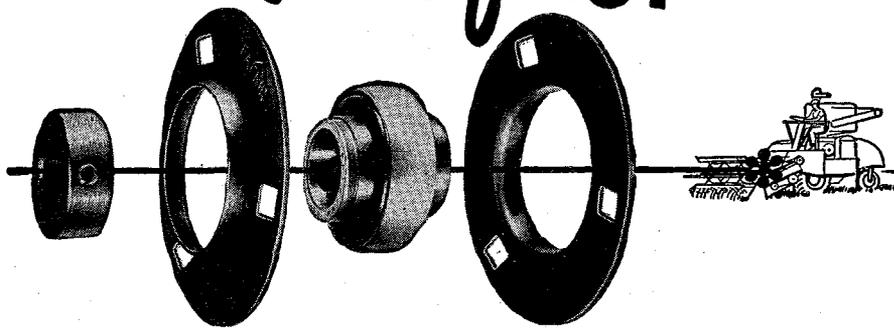
What of science and technology? Can they not save us from the apparently inevitable drift towards want? In a chapter entitled "Horizons and Mirages," Osborn takes a close look at certain limited possibilities for increasing food production. Recent trawling operations in the Bering Sea and off the coast of Washington have revealed astounding storehouses of edible marine life on the ocean floor in these regions. In addition, plankton, seaweeds, pond culture, yeasts and algae can be of some help. But all these put together, even if intensively developed, would only delay, not avoid, the inevitable "Hour of Decision" (Osborn's final chapter). The brute fact is that we are behaving, population-wise at least, like a hutch full of rabbits, and our capacity to reproduce far exceeds our capacity to produce those things upon which life itself is based.

Global birth control?

Inevitably, we must decide to extend the practice of the limitation of the human capacity for reproduction. Already two nations of the world have declared it in the national interest to practice birth control. Interestingly, although one of these nations (India) is beset by a serious food shortage already upon her, the other (Sweden) is operating with unusual and commendable foresight, being under no greater population pressure than are we at the present time. Opposition to global birth control will certainly be widespread, especially in Catholic circles, yet Osborn is confident that under the press of circumstances, even religious dogma can be altered.

In brief, then, either we make the decision to stabilize our population to match some existing or future level of production, or other forces (perhaps the Four Horsemen of the Apocalypse) will make it for us. We cannot evade the choice. In clarifying the nature of this problem, Osborn has scored again, with a worthy successor to *Our Plundered Planet*.

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