

population density promotes, and is promoted by, prosperity and good government. Medieval scholars did not commonly write on these questions, but one who did, the historian Ibn-Khaldun, noted that in North Africa the association between population growth and prosperity was valid.

Population studies were revived along with other classical learning in the sixteenth century; scholars began to compile vital statistics and to explore the relation between population levels and national prosperity. In *The Interest of Holland*, a tract written in 1662 at the height of the Dutch efflorescence, Pieter de la Court argued that population growth, through births and immigration, was a prime mover of economic growth, provided that it was husbanded by good GOVERNMENT. The study of vital statistics was initiated by John Graunt's *Natural and Political Observations Upon the Bills of Mortality* (1662). Graunt's data were reports of burials and christenings in the London region.

The dissent from growth optimism was sounded by the Reverend Thomas Robert Malthus in the *Essay on the Principle of Population* (1798), a tract which laid the foundation of subsequent population control advocacy. Aware of estimates by previous writers that world population had increased greatly since recorded history, Malthus introduced a 'limits to growth' concept. It was that, while the natural rate of increase of agricultural produce is arithmetical, the natural rate of population increase is geometric. Since the number of births thus always exceeds the carrying capacity of land, human misery is permanent. Excess births, Malthus stated, are reduced by pestilence and disease, vice (infanticide and contraception), famine and war. Misery can be moderated by delayed MARRIAGE and restraint, but its bitter edge, he maintained, can never be entirely subdued. Relying on the teachings of the Anglican Church, Malthus rejected artificial contraception, abortion and infanticide as immoral methods of population control, yet he stated it as a moral duty evident to 'the humblest capacity' that 'he is not to bring beings into the world for whom he cannot find the means of support.' His utilitarian contemporaries

concluded that this duty sanctioned contraceptive practices.

The birth control and population control movements in Britain sprang in part from this contestation. Socialist writers tended to reprobate the Malthusian calculus as a 'calumny against mankind.' HUNGER was not due to insufficient fruitfulness of the earth, they insisted, but to unequal distribution of produce. This criticism was to remain the cornerstone of socialist thought on overpopulation; in this century the criticism was taken up by church leaders, theologians and the WORLD COUNCIL OF CHURCHES.

From about the 1830s the population question was increasingly integrated with the emancipation of women. The movement took its impetus from the EQUALITY idea that was spread by the American and French Revolutions, and notions of the perfectability of man that were often ingredients of equality concepts. Representative of this trend was John Stuart Mill (1806-73). In his *Principles of Political Economy* (1848) he noted that the emancipation of women and 'the increase of intelligence, of education, and of the love of independence among the working classes, must be attended with a corresponding growth of the good sense which manifests itself in prudent habits of conduct, and that population, therefore, will bear a gradually diminishing ratio to capital and employment'. His tracts *On Liberty* (1859) and *The Subjection of Women* (1869), written in collaboration with Harriet Taylor Mill, extended the legitimate domain of private liberty to include the woman's right to control her own reproduction. This logic was accepted by most socialists of the day, irrespective of their criticisms of Malthus. Socialist governments in this century have usually accepted the desirability of population control.

The effects of INDUSTRIALIZATION are of such complexity that authorities may contend either that Malthus' grim forecast has been overtaken by technology, or conversely, that overpopulation profoundly menaces human well-being.

The application of technologies to the enhancement of FARMING efficiency and to increasing crop and livestock yields created, by the turn of the century, surpluses of produce. Today's hybrids and other technological applications

POPULATION CONTROL

enable even densely populated nations such as Japan to be self-sufficient in produce. But in underdeveloped nations, where the dual pressures of land degradation and high population growth rates often occur simultaneously, malnutrition and starvation are distressingly common. Estimates of the total world population sustainable by present technologies range from 10 billion to 30 billion.

At the same time that agricultural production commenced a long period of rapid growth, around 1870 the birth rate in industrial nations entered a long period of decline (punctuated by fluctuations), which continues today. Thus for industrial nations both parts of Malthus' formula have been incorrect predictions until now. The population structure characteristic of population decline is called 'the demographic transition'. In the transition, the proportion of the population engaged in agriculture declines to the current levels of 5-10 per cent of the total. The surplus population shifts to towns and cities. Average FAMILY size decreases from about four to replacement value, and, in recent decades, below replacement value in many developed nations. At the same time, increased longevity due to improved sanitation, nutrition and health care increases the proportion of the population over 65 from about 5-7 per cent in 1900 to the present levels, in developed nations, of 14-16 per cent. Forecasts indicate that this percentage will increase to 20 per cent over the next three decades.

The revival of Malthus' prognostication despite the increase of abundance has its beginnings in reliable estimates of human population growth by Alexander Carr-Saunders (1936). The Han Empire of China and the contemporaneous Roman Empire were estimated to contain 50-100 million, but these figures fell sharply when the two empires collapsed. World population at the beginning of the Christian era was estimated at 300 million. It totalled 545 million by 1650, and 728 million by 1750. The annual rate of growth from 1750 varied greatly by continent, ranging from more than 2 per cent in Africa and Latin America. By 1950 world population had reached 2.5 billion. It had doubled by 1985, and is projected to reach 8.2 billion in 2025.

The rapid fall of doubling times indicates

Current and projected population size and growth rates

Region	Population (billion)			Annual growth rate (%)		
	1985	2000	2025	1985 to 1985	1985 to 2000	2000 to 2025
World	4.8	6.1	8.2	1.9	1.6	1.2
Africa	0.56	0.87	1.62	2.6	3.1	2.5
Latin America	0.41	0.55	0.78	2.6	2.0	1.4
Asia	2.82	3.55	4.54	2.1	1.6	1.0
North America	0.26	0.30	0.35	1.3	0.8	0.6
Europe	0.49	0.51	0.52	0.7	0.3	0.1
USSR	0.28	0.31	0.37	1.3	0.8	0.6
Oceania	0.02	0.03	0.04	1.9	1.4	0.9

Source: Department of International Economic and Social Affairs, *World Population Prospects: Estimates and Projections as Assessed in 1984*, New York: United Nations, 1986.

Medium-variant projection.

unsustainable population growth despite any imaginable technological windfall. Such alarming statistics found expression in the metaphor 'the population bomb', launched by ecologists Paul and Ann Ehrlich in 1968. Their imperative of zero population growth helped unite public unease about the risk of nuclear war, environmental degradation and mistrust of technology into the GREEN Movement, for which population control was a priority issue. Population control has since become a world priority in the post-Cold War era under the concept of a 'sustainable future'.

Population control is an audacious attempt to subdue a great natural force. The goal is to be achieved despite removing the natural checks on population growth (e.g. epidemics), and simultaneously with increasing longevity. A successful outcome would create a population structure weighted heavily toward the aged cohort claiming support from a reduced cohort of the young. Thus a new source of conflict, 'generational conflict', would arise worldwide.

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PORNOGRAPHY

The word 'pornography' comes from two Greek words, *porne* (prostitute) and *graphein* (to write). From writing about prostitution, the word came to mean that which deals with sex or sexual activity and appeals to prurient interests or that which is obscene. In fact, for many people the distinction between OBSCENITY and pornography has become blurred. The meaning of 'pornography' today is one which lay people, as well as the courts, have struggled to define and to understand.

The controversies over pornography have waxed and waned in the twentieth century, but increasingly since 1975 or so there have been renewed discussions of this problem for several reasons. One reason is certainly the US government's stress on the notion of 'family values' and its attitude that pornography is harmful, not only to the FAMILY, but to SOCIETY in general. Another perhaps more recent factor deals with the very nature of ART itself, with modern and postmodern art as well as with popular CULTURE. The photographs of Robert Maplethorpe

and various performance artists and the recordings of various rock groups and rap singers have come in for their share of criticism and, in some cases, legal attention. Finally feminist writings on pornography have vigorously presented still another viewpoint.

During the early years of the 1970s, the battlelines were clearly drawn. On the one hand were those who felt that pornography represented a real danger to society and, on the other hand, those who maintained either that pornography could not be defined adequately or that government restrictions presented a far greater danger than did pornography.

Those who held that pornography was harmful asserted that the emotional needs of children would be thwarted in a society obsessed with pornography, romantic love would disappear, and sex would be depersonalized and reduced to the mere couplings of animals, thus dehumanizing those who engaged in it. Furthermore, the no-longer sublimated sexual drive — thought to be the source of 'creative imagination' — would lead to the disappearance of a great deal of art, and perhaps even halt the progress of civilization (Mishan 1977: 250-2). Taking the word 'pornography' literally, Charles H. Keating, Jr, saw pornography as a kind of PROSTITUTION since it 'advertizes and advocates "sex for sale," pleasure for a price' (Keating 1970: 299). Sexual immorality, for Keating, 'more than any other causative factor, historically speaking, is the root cause of the demise of all great nations . . .' (p. 300).

Opposing such views were those who held that pornography was offensive but could not be clearly defined, that it had not been shown to produce actual harm and, finally, using a slippery slope argument, that the restriction of so-called pornographic material in a free society was a graver danger than the presence of such material. Finally psychologists and doctors argued that pornography was beneficial: it might aid in normal sexual development and have a positive effect on those people who might not have access to sexual relationships with a loved one.

In general, then, most of the discussions on pornography concerned whether it could be defined with any kind of clarity and whether it was, in fact, harmful since harm was considered