

P R E - M A L T H U S I A N D O C T R I N E S

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T H E U N I V E R S I T Y O F M I N N E S O T A ,

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Prefatory Note.

The purpose of the writer of this thesis has been to show the trend of thought, before the appearance of Malthus' famous Essay, on the important problems of population. He has aimed to accomplish this by reference to the effect of religions and laws, and by reviewing the doctrines and theories of writers in more recent times. No attempt has been made to present a complete record of the influence of law and religion, the writer's efforts here being intended as suggestive only; but in the survey of modern doctrines he has endeavored to make the investigation as complete as circumstances and the limited available library facilities would permit. It has been found necessary, unfortunately, to rely on secondary authorities for a very considerable portion of the information sought and contained herein. The following works have been found useful: Robert von Mohl's *Geschichte und Literatur der Staatswissenschaften*; Joseph Garnier's *Du principe de Population*; and Wilhelm Roscher's *Geschichte der National Oekonomik in Deutschland and Political Economy* (translated by Lalor).

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C o n t e n t s .

Chapter I. Introduction.

Chapter II. Italian and Spanish Doctrines.

Chapter III. German Doctrines.

Chapter IV. The Relations of the Mercantile
System and the Physiocratic School to
Population.

Chapter V. French Doctrines

Chapter VI. English Doctrines.

Chapter VII. Conclusion.

Bibliography.

Index.

Chapter I. Introduction.

Jehovah's command (1), "Increase and multiply and replenish the earth", is found in the religions of all early peoples. The reason is perhaps more simple than obvious. Historical records show that the early nations, as well as primitive men, were in a state of almost continuous hostility; always menaced and menacing, they were organized, not for peace and industry, but for war and conquest. In such a state of affairs it is easy to comprehend that the laws, religious as well as civil, put forth their efforts to increase the number of people. Napoleon's declaration that "God is on the side of the heaviest battalions" was believed in practically. Observation taught them that in numbers there was strength and usually victory; and with victory went the spoils and, often, increased means of subsistence. Poverty served as a stimulant to offensive warfare.

But in proportion as war ceases to be the normal state of humanity and in proportion as the nations renounce the policy of mutually endeavoring to ~~ruin~~ ruin each other and begin to seek the means of subsistence not in war but in production and exchange, the doctrine, that a large population is always the *s u m m u m b o n u m* of the state, ceases to be regarded as true; and the doctrines which Malthus and others before him maintained becomes recognized, - that of a contradiction between the germs of life and the possibilities of life, with the consequent alternative of

(1) Genesis I, 28.

solving the problem either through the destructive action of the forces of nature or the regulative influence of human reason.

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In ancient Vedic literature many passages are found indicating that a numerous offspring was desired. A common prayer was, that a marriage might be blessed with ten children. There seems to be no conception of the fact that this possibly may be an evil, and overpopulation was not thought of (1).

The Bibel shows that the general desire of the Jews was to increase their numbers. Barrenness was a cause of reproach, as is seen in Genesis, xxx, 23, when Rachel rejoices over the birth of a son, her disgrace having been taken from her. In Deuteronomy, xxiv, we find that a newly married man was exonerated from all civil business and from the paramount duties of war, for one year.

Christianity caused a reaction against the encouragements to marriage. This had of course a religious basis only, no economic consideration being entertained. Celibacy was commended by Saint Paul (2). The Roman Catholic church has always recommended abstinence and has endeavored to teach it by enforcing celibacy in its priesthood, and by the innumerable convents and monasteries under its jurisdiction. Garnier (3) (1) V.Kaigi: The Rig-Veda, pp.75 and 153, notes; trans.by Arrowsmith.

(2) V. I Corinthians vii.

(3) V. Du Principe de Population, p.324.

quotes M.Guerrier de Dumast, a Catholic writer, from his *Origine de tous nos Perils*, on the influence of Catholicism, as follows: "It is in Catholicism that European peoples find a bridle to their passions, one that holds in check with sufficient power the procreative desires of man; it alone is able to hold in check the procreative forces which purely human prudence cannot restrain; it alone acts with such foresight and spares us - with our vain pity - the cruel spectacle of a superabundant population cut down, as it were, by misery. - - - It does this in a twofold manner: it honors and practises continence, teaches simplicity in morals and condemns luxury." The writer quoted naturally takes a view favorable to the church and exaggerates it, but the general trend of Roman Catholic and Christian influence and teaching has been, to some extent, as here indicated. In the year 1563 the Council of Trent found it advisable to declare that the marriage state was as honorable as celibacy or virginity; which was evidently a reaction against the extremes which the church was wont to teach (1).

The sacred books of Zoroaster, the *Zend-Avesta*, are full of religious effusions favoring those conditions which multiply the race and make marriage productive (2).

(1). Si quis dixerit statum conjugalem anteponendum esse statui virginitatis vel coelibatus, et nonne esse melius et beatius manere in virginitate vel coelibatu quam juni matrimonio, anathema sit. - Conc.Trident., sess.xxiv, cae.10.) V. Garnier: *Du Principe de Population*, p.323.

~~XXX~~ (2). Cf. Larousse: *Grand Dictionnaire Universel*, art. Population.

Confucius taught the desirability of large families and that a father was not to be respected if his children were condemned to celibacy. A son failed in his first duty if he did not permit himself to beget children to perpetuate his name and family. - His whole doctrine is, however, qualified by his injunction to curb the passions to the guidance of reason.

Buddhism, though, it does not discourage the increase of population, honors celibacy. In Thibet and in Ceylon there are today many temples inhabited by priests of this faith who live in celibacy (Though their lives are said to be often very immoral), as a means of mortification preparing them to more readily enter into the "Great Whole" (1).

Polygamy is expressly permitted by the teachings of Mohomet in the Koran. Polygamous marriages are not as fruitful as monogamous ones and thus indirectly Mohammedanism tends, if not to diminish, at least not to multiply population as rapidly as Christian doctrines, for example. The theoretical influences of Mohammedanism have, however, favored increase. According to Lady W. Montague, "the women of this religion are taught to believe that they best insure their future happiness by employing themselves in making young Mussulmen, while those who die unproductive perish in a reprobate state" (2).

(1) Cf. Garnier, Du Principe de Population, pp.311, 322.

(2) Cf. Roscher: Political Economy, vol.II, Population; also, George Ensor: Inquiry concerning Population of Nations, p. 7, - London. 1818.

The Greeks were more artistic and refined than warlike and so a large population was early regarded as a means of impoverishing them and of lowering the quality of their offspring.

The laws of Lycurgus, as well as those of Solon, permitted, and approved of, exposing infants, and especially those that were unfortunate in their birth and deformed, in order to make the population stronger physically and mentally and to avoid overburdening and impoverishing parents, and consequently the state, with useless or superfluous offspring. They both endeavored to promote the increase of population as a general principle, but not without regulation. Xenophon says (1) approvingly of Lycurgus that he reckoned the matter of procreation of children of the greatest consequence to free women; that he prevented them moreover from marrying whenever they wished, and enjoined that marriage should be consummated when the body was in full strength, as he considered this conducive to the procreation of a robust and manly offspring.

Herodotus (2) relates that the Persian rulers of his day distributed gifts, annually, to those of their subjects who had a large number of children.

(1) ~~XXXXXXXX~~ V. Lacedemonian Republic, Bk.I.

(2) V. History, Bks. I and IV.

In his Utopian state (1) Plato takes up the problem of regulating the size of the population. He regards the questions of marriage and procreation as most important. He would confine the period in which it should be lawful to beget children to ten years. He would not permit men to beget children before their thirtieth nor later than their fifty-fifth year. This regulation was intended, primarily, for the improvement of the quality of the race and not necessarily to diminish or limit the population. In case the regulation were broken he would have the child exposed, unless there should be no difficulty in providing for its support. In his later work (2) he would permit all above twenty-five years to marry, and would compel all except those who were diseased or deformed to marry before they were thirty-five, unless they were willing to give a fine proportioned to their peculiar station.

Aristotle seems to be more radical in his views on the danger of overpopulation. He proposes to limit the number of people to a stated maximum, and in case of a superabundance to send the excess to some distant place, to form a colony. He says that if the law prohibits exposing infants, it is necessary for it also to regulate the number each couple may engender (3).

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(1) V. Republic, Bk. V.

(2) V. Laws, Bk. V.

(3) V. Politics, Bks. II and VII.

The Romans, organized for conquest, made laws favoring marriage, by sumptuary prescriptions, by obstacles to succession and by fines, punishments and various petty annoyances. The laws of the Roman Emperors encouraging marriage and fecundity were abrogated through the influence of Christianity in the later days of the Empire, not, as was said before, for economic reasons but on the principle of abstinence and through the belief that the number of men increased or diminished according to the order of Providence.

Julius Caesar prohibited women who were twenty-four years old and unmarried and childless from wearing precious metals and jewels and from using litters; and he rewarded those who had large families (1).

Augustus too found it necessary to take measures to remedy the social and economic and political evils then existing. The age was one of astounding depravity in morals, in spite of its renown otherwise. The marriages of citizens had really been largely abandoned and transformed into libertinism through a system of annual divorces. Celibacy was in fashion, and all this, together with the civil wars, had the effect of causing the race of citizens - the Roman population - to diminish perceptibly. Augustus tried to remedy these evils, but he was too late. He enacted the *Leges Julia* (about 18 B.C.) and *Papia Poppoea* (A.D.9). These Laws ~~xxx~~ (2) imposed a tax (*aes uxorum*) on celibates and

(1) Cf. *Grand Dictionnaire Universel*, art. Population.

(2) V. Ortdlan: *History of Roman Law*, p. 394; trans. by Richard and Nasmith, London, 1871.

granted exemption from certain civil expenses to families of three children. The laws were gradually suppressed by Caracalla, Theodosius and Justinian, by whom they were entirely abrogated. But before Justinian's time Trajan and other emperors had taken measures similar to those of Augustus, to no purpose, however.

A law of Majorian compelled fathers to give a dowry to their sons and daughters before a marriage could be performed legally. The Council of Arles a little later (A.D. 524) prohibited marriages without dowries (1).

In the fourteenth chapter of his Germania Tacitus tells us of the purity of the German marriage relations and customs, which were in such sharp contrast to conditions in the city of the seven hills. - Plutarch relates that Alexander doubled the gifts to pregnant women, which had been instituted by Cyrus. - Strabo refers to the same incident. - Livy, Pliny, Columella, Varro, Vallerius Maximus, Gellius and others (2) refer in different parts of their works to ancient morals and customs affecting marriage and population.

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The desire of statesmen and the reasonings of scholars in Mediaeval ages continued generally to be in favor of multitudinous populations. A large population was always

(1) "Nullum sine doti fiat conjugium"; cf. Garnier.

(2) V. Roscher's Political Economy. The notes to his chapters on "Population" are full of references to writings which have a bearing on this subject.

regarded as desirable, and it was considered always, too, independently of the means of subsistence. The Corpus Juris Canonici had an influence on the people as well as the clergy. Thomas Aquinas, Nicolaus Oresmus, Bernhardian of Sienna, Antonin of Florence and other scholastics showed, as a rule, the influence on their thought of the Greek Philosophers. They contributed nothing new towards solving the problem of population.

A n a l y s i s .

(a) Introductory.

(b) Religious Influences:

1. Rig-Veda,
2. Bibél,
3. Christianity,
Catholicism,
4. Zend-Avesta,
5. Confucius,
6. Buddhism,
7. Mohammedanism.

(c) Grecian Laws and Thought:

1. Solon,
2. Lycurgus,
3. Xenophon,
4. Herodotus,
5. Plato,
6. Aristotle.

(d) Roman Laws and Influence:

1. Caesar,
2. Augustus,
Leges Julia et Papia Poppoea,
3. Majorian,
4. Tacitus and others.

(e) Mediaeval Thought.

Chapter II. Italian and Spanish Doctrines.

Most of the early writers favor populousness. The trend of thought is similar to that in the rest of Europe. When we reach Filangieri and Ortes in the latter half of the eighteenth century we find an advanced point of view, very like that of Malthus, taken. The development of theory on this problem of population in the southern as well as in the more northern countries of Europe point to a climax soon to be reached by the English economist.

Machiavelli (1469-1507) was one of the first to see that it was the inevitable fate of man either to place a morally rational check on the generative impulse or to be held forcibly within the limits of the means subsistence - since they cannot be passed by him - through the agency of misery and vice (1).

One of Botero's (1540-1617) best known works, *Delle Cause della Grandezza delle Citta*, shows a not inconsiderable insight into the population question. He regards a large population as of great value to the state and shows how, in his opinion it may be attained. In the first place he would have the laws favorable to marriage, but he does not emphasize offering premiums for numerous offspring. He warns the government against permitting unions of great discrepancy in age, as this is not conducive to fruitfulness. He makes a statement, which many succeeding writers failed to comprehend, that an increase in population was not dependent solely on (1) *Discorsi*, Bk.II, Chapt.V; cf. Roscher's *Political Economy*, vol.II, p.288.

the increase in the number of marriages and births, but largely on the preservation of those born, to an old age - a longer duration of life. He recommends an effective system of public aid to the poor (1).

Patricius treats of this subject in his *De Institutione Republicae*. He had grave fears in regard to superabundant populations, and wished to restrict immigration almost entirely (2).

Saavedra-Faxardo (1554-1648) takes an opposite view. He says that a large population renders it necessary for people to be diligent and saving and should therefore be encouraged (3).

Mariana (1537-1624) holds similar views in his *Historia de Espana*.

Spinoza (1632-1677) says that the strength of a nation is in exact proportion to the number of its citizens (4).

Francesco Cervua's work *Altreè Idee su la Popolazione* appeared in 1773. In it he expresses himself to the effect that the most important aim of political science ought to be

(1) Cf. Roscher's *Political Economy*, vol.II, p.288.

(2) Ibid.p.343. - "Incolarum multitudo periculosa est in populo."

(3) V. *Idea de un Principe Christiano*, Symb.66; cf.v.Mohl.

(4) "Imperii potentia ex civium numero aestimanda est". V. *Tract. Pol. in Opera*, vol.II, p.92; ed. Bruder, Leipzig, 1844.

to obtain the largest population possible and to keep it always increasing. One of the greatest hindrances to this end he sees in the partly necessary and partly voluntary laxity in marriage relations, and in moral depravity; and his endeavors are devoted to examining into the causes of these conditions. Purity of morals, regulation of luxury, restriction of the Catholic priesthood, inculcation of the necessity of divine service, general education and other similar means are his remedies for the evil conditions he sees. There is much that is valuable in his work, but he shows that he could not fully grasp or comprehend the essence of his theme (21).

Pietro Verri (1728-1797) agrees with the commonly accepted belief, that a large population should be sought after, as the highest aim of true statesmanship (2).

Filangieri (1752-1788) (*Scienza della Legislazione*, Bk. II, chaps. I-VIII) is like Cervua in his breadth of view and general optimism; but he is as silent as Cervua on the essence of the question. He does not think that the public welfare will be furthered simply by increase in numbers, but lays great stress on the economic and social wellbeing of the people. He rather inconsistently, however, thinks, or seems to think, that when he has shown how all hindrances to a growing population may be removed, he has removed all obstructions to popular happiness (3).

(1) Cf. V. Mohl: *Geschichte und Literatur der Staatswissenschaften*, vol. III. p. 471.

(2) V. Grand Dictionnaire Universel, art. Population. Cf. Verri: *Reflexions sur l'Economie politique*, chapt. xxi.

(3) V. *Science of Legislation*; trans. by Wm. Kendall, London, 1792.

Genovesi (1712-1769) takes an advanced stand in his theories expressed in *Legione de Commercio d'Economia Civile* (1765). He sees clearly that a large population is not always desirable and declares himself opposed to those statesmen who, under all circumstances and without reservation, clamor for an increasing population; and he warns them against the danger of too large populations (1). The development of his theory lacks symmetry. His work treats mainly of the cases of depopulation; such as, poor climate, unfruitful soil, insufficient employment, and disease. He hardly more than hints at remedies for overpopulation. He says it makes an important difference to a country whether it has colonies and foreign trade or not. In case of overpopulation in the latter event, he can see no solution but warring with other countries.

Ortes (1713-1790) makes an important contribution to this subject in his *Reflessioni sulla Popolazione delle Nazioni per Rapporto all'Economia Nazionale* (2). "Population maintains itself, augments or diminishes, in proportion to and in consequence of the wealth of the people being augmented or diminished before; but never does population precede wealth in pint of time. - The generations of men are limited by men, those of brutes by force." He refers to effective population, or to its real strength, and not to that made pos-

(1) Cf. V. Mohl: *Geschichte und Literatur der Staatswissenschaften*, vol. III, pp. 476-7.

(2) Published in Venice, 1790. *V. Scrittori Classici Italiani*, vol. XXV.

sible by an increase in the birth-rate, which could precede wealth, but would be neutralized by an increased death-rate or otherwise. He teaches very definitely and with figures that population tends to increase in a geometrical ratio. He asserts that if the natural instincts were allowed full play, population would double every thirty years. He calculates, for instance, that seven persons, composed of three old people, two young men and two young women, would in

150 years be the ancestors of	224 living persons,
300 " " " "	7,168 " "
450 " " " "	229,376 " "
900 " " " "	7,516,192,768 " "

He says that the means of subsistence increase at a less rapid rate. From this maxim he develops a theory, that when a population has reached a point where the means of subsistence are just sufficient to support the number of people then existing, a standstill is necessary and results in a large proportion of the people remaining unmarried. He thinks that if only one-half of the people marry the population will remain stationary. He teaches certain doctrines regarding the increase of natural resources (thus to make a larger population possible), a few of which are instructive, others of which are worthless. His theory that numbers of men are kept down by ragione, especially by voluntary celibacy, affords him an opportunity of extolling the provident discipline of the Catholic Church.

His treatise is of importance per se as well as for the history of population doctrines and theories as such; but it is so full of errors and after all so essentially incomplete that it must not be overvalued. - Palgrave's Dictionary of Political Economy (vol.III,p.44) says: "Ortes is a harbinger of Malthus, first by his law of geometrical increase of population; and, second, by the influence which he attributes to human reason as a prudential check against overpopulation". Robert von Mohl (1) says: "It must be noted that this work was at first very little known, and that Malthus undoubtedly had no knowledge of it."

(1) V.Geschichte und Literatur der Staatswissenschaften,vol. III,p.479.

A n a l y s i s .

Introductory.

1. Machiavelli.
2. Botero.
3. Patricius.
4. Saavedra-Faxardo.
5. Mafiana.
6. Spinoza.
7. Cervua.
8. Verri.
9. Filangieri.
10. Genovesi.
11. Ortes.
 - (a) Geometrical ratio,
 - (b) Subsistence,
 - (c) Criticisms.

Chapter III. German Doctrines.

It will be observed that the German writers have seldom any doubts concerning the desirability of large populations. Even in the eighteenth century there were few who were able to see that great populousness sometimes had its drawbacks. The convictions of some writers seem often to border on fanaticism. But still in Germany, as in other countries, the number and importance of writers who help discover that which has since come to be recognized as the truth of the matter gradually increase. The writings of Suessmilsch and Herrenschwand, especially, indicate progress.

Martin Luther (1483-1546) is among the first German writers who treat in some manner of the questions of population. In his Sermons of the Marriage State he breaks away from the views held by the church in his time and he both in deed and in writing protests against the celibacy of the priesthood. He advises all young men to marry at twenty and women at from fifteen to eighteen. Moral considerations enter into his views on this point. The persons, he says, who fail to marry because they think they will be unable to support a family have no real confidence in the wisdom and goodness of God. God will not permit those who obey his commands to want the necessaries of life.) Luther naturally views the question from a theological and personal standpoint.

Herman conring (1606-1681) (Examen Rerum Publicorum Potiorum Totius Orbis) argues for a numerous popula-

tion (1). He attempts to prove the truth of his argument by pointing to Venice, Florence and other rich and populous cities. He recommends several laws which he thinks would help increase population, for he is certain that wealth and populousness are a nation's strongholds. The reason the southern nations of Europe are not so populous as the northern he assigns to the higher temperature and extensive emigration. The interior of Spain is not so populous as the coast regions because "non aptum alendis multis hominibus". He accounts for the supposed low state of morals in Spain by referring it to the scarcity of people. Conring ~~XXXXXXXX~~ confuses cause and effect when he declares that vice and prostitution cause barrenness and that where there are many public women population is meager; and moreover his statement is not altogether true. The population of Spain, according to Conring, would have been greater had there not been so many wars and inquisitions, which had been largely instrumental in causing people to emigrate to colonies and other countries; and had there not been such stringent regulations prohibiting immigration. He figures, in this connection, that if the monks in Spain had been permitted to marry, it would have meant an increase of one hundred thousand children every year. To increase the number of people in any country he thinks an essential step

(1) "Cui multus est populus, is omnibus quoque abundat, quae humana industria et intelligentia complectitur. Subditprum multitudinem magna etiam opum possessio comitatur." V. Roscher: Geschichte der National Oekonomik in Deutschland, p. 258.

is to relieve the people of excessive taxation; for the laws favoring immigration, or other things, are useless when the government of a state does not act so as to enable its subjects to obtain and keep sufficient means of subsistence. If it is not possible to obtain the means of living in one state, it is a tyranny, which God will punish, to refuse permission to emigrate to another.

Johann Heinrich Boecler's (1611-1686) leading work was entitled *Institutiones Politicae*, etc., and in it he develops quite fully his opinions on population. Populousness has a great influence on the happiness of the individual as well as the state. The causes of great populousness in any nation are prosperity, fruitful marriages, encouragements to commerce, cheapness of the necessities of life, flourishing schools and a brilliant court. It is important for the welfare of the state that the size of the different social classes be regulated. Population should not increase beyond the ability of the territory inhabited to support it (1). In case it does so increase, it should be diminished by emigration to colonies established for this purpose.

Johann Joachim Becher (1625-1685) wrote his *Politischer Discurs von den eigentlichen Ursachen des Auf. und Abnehmens der Staedte und Laender* about the middle of the seventeenth century. He takes an unquestioning and enthusiastic view of the benefits which were supposed to be traceable to influence of great populousness. He values tools and occupations in

(1) Cf. *Ibid.*, pp. 262-3.

proportion to their usefulness in aiding in the support of man and in increasing his means of obtaining subsistence. His materialistic conception is shown when he asks, "Why is a murderer beheaded? Why do we hang a thief? Simply because the first diminishes population and the second the nourishment of it".

Samuel Ruffendorff (1631-1694) touches on population in his *Jus Naturae et Gentium*. He is not given to prejudicial views on this subject. He commends permitting innocent refugees to immigrate, providing they are rich and industrious, a view possibly gained from observation of the Huguenots. He would permit emigration en masse as well as in individual instances, if the purpose were to better their circumstances and providing that sufficient proof of this were shown. He does not approve of compelling the subjects to marry, but would permit a partial compulsion by the government in case the parties concerned were of sufficient wealth to support a family and not prevented by physical defects.

Gottfried Wilhelm Leibnitz (1646-1716) (1) maintains the ordinarily accepted views of his time favorable to large populations. "The real force of a kingdom consists in large numbers of men; where there are many men, there are also found wealth and strength. A people that is always engaged in useful occupations, such as manufacturing and agriculture, will be the most secure (2). The power of any region consists in land, property and population."

(1) *V. Methodus nova docendae discendaeque Jurisprudentiae*; published in 1668.

(2) Cf. Roscher's *Political Economy*, vol. II, p. 343.

Ludwig von Seckendorff (1626-1692) published his Teutscher Fuerstenstaat in 1678) He also regards the greatest possible population as indicative of great power and wealth. He would have it well-nourished, however, and in good health. He advises the government to take measures to promote this end. A specific instance is his recommendation to the government to support all children, whose parents are unable to do so.

Phillip Wilhelm von Horneck (1638-1713) in Oesterreich ueber Alles wann es nur will (1684) endeavors to point out how Austria may become supreme in all respects. In this connection he tells us that a fundamental rule of Political Economy should be to obtain the greatest ~~NUMBER~~ increase of men and the greatest amount of employment for them. His theory in this respect is quite sound, but in his suggestions on the manner of attaining these desirable ends he is chimerical.

Christian Wolff (1679-1754) does not belong to those who favor large populations, without reservation. The two leading elements in the power of a state, he says, are many subjects and rich subjects; but he considers the latter as the most important, for a state could through wealth obtain foreigners to act as soldiers. He would have the population "Neither too numerous nor too few"; he would have it large enough for effective defense and not so large as to make living precarious for the multitude. A large population is possible when each man is enabled to marry early and to support a wife and children. To induce immigration good political and

social institutions are necessary. Emigration should not be forbidden except when it endangered the welfare and security of the state; but emigration in large numbers should not be permitted except when those emigrating were in the greatest need (1).

Theodor Ludwig Lau's (-) leading work entitled *Aufrichtigen Vorschlagen gluechlicher, vortheilhafftiger und bestaendiger Einrichtung der Inraden und Einkuenffte des Souverainen und ihres Underthanen* appeared in 1717-18. He advises the state to permit polygamy, for this would be better than the brothels and the disregard of marriage then existing; and he thinks it would result in an increase in population, which he favors providing that the different classes increase in proportion (2).

Johann Peter Suessmilch (1707-1767) wrote his *Goettliche Ordnung* in 1740. He teaches with great confidence that the first duty of princes is to use all possible means for getting a numerous population, "because the happiness of the masses of people is proportionate to its size". He advises them to remove all abstacles to marriage and to discourage emigration and to encourage immigration. Suessmilch in his investigations used mortality and birth records, a practise then quite common. The regularities in the numbers of each sex born, the peculiarities of the different ages of human life, the death and birth rates and other phenomena impress him and he regards it all as a proof of divine forethought.

(1) V. Roscher: *Geschichte der National Oekonomik in Deutschland*, p. 350.

(2) V. Ibid., p. 379.

Indeed, his teleo-theological views are everywhere apparent. As a theologian it is natural for him to fall back on the Biblical "Increase and multiply" doctrine, and he considers the excess of births over deaths as the fulfilling of this divine ordinance. He does not regard machinery as harmful. He believes luxury has an evil tendency, especially as it does not aid in increasing the population. An increase in the number of things regarded as necessary he says hinders marriage and consequently restricts population. Suesmilch's treatment of the subject is systematic and he endeavors to evolve some principles from a chaos of material which he found available. His diligence in collecting data was remarkable and unusual in his time, considering how difficult of access it must have been and how comparatively meager in quantity. His critical sense is rare and von Mohl says (1) that his methods are usually correct. His purpose is very inclusive, as he did not only seek to discover general laws, but also to apply them to private as well as state affairs. His laws of population are rather indefinite and not so mathematical as those explained by Ortes and others among his contemporaries. His work is a step ahead, though only the ordinary Vermehrungspolitik, in essence, of the eighteenth and preceding centuries. He spent many years and much study on this perplexing problem, but he was nevertheless unable to penetrate much deeper into these perplexing questions than others had done. His theories have not been able to stand the test of time.

(1) V. Geschichte und Literatur der Staatswissenschaften, vol. III, pp. 446-7.

Jacob Friedrich von Bielfeld (1716-1770) declares that overpopulation is entirely impossible (1). His arguments are unusually shallow. He says that the more thickly a country is populated and the more it is cultivated, the easier it will be for a people to thrive therein. Population and the means of subsistence increase in like measure. The amount of labor employed in agriculture and the quantities produced increase in equal progression. His theories here are, as will be noted, the opposite of Malthus'.

Leonard Euler (1707-1783) discussed the mortality question, using, like Suessmilch, available municipal records. He was unable to contribute much of value. His work was probably useful in insurance, however. The title of his work is *Recherches sur la Mortalite et la Multiplication du Genre Humain*; it appeared at about the same time as Suessmilch's more comprehensive work.

Johann Albrecht Philippi's (1721-1791) *Wahre Mittel zur Vergroesserung eines Staates* appeared in 1753. In the third chapter he declares the most effectual means of increasing population is the "state's care and generous support of its subjects". The state should be solicitous to facilitate marriage and to establish orphanages, hospitals and like institutions. He praises the Chinese practice of depending almost exclusively on human labor - "in substituting men for horses" - and thus making the employment of large numbers necessary. He thinks labor-saving machinery is an evil and would like to see the art of printing lost in which case more

(1) V. *Institutions Politiques*, Bk. I.

people could earn a living (1).

Anton Friedrich Buesching (1724-1793) (Vorbereitung zur Europaeischen Laender und Staatskunde, 1759) accepts the Colbertian doctrine that the power of the state depends on the number of inhabitants. To obtain increase he recommends, as was usual, encouragements to marriage and immigration; hospitals to make childbirths less dangerous and for children's diseases; great opportunities for labor; reasonable taxes; and religious freedom. On the other hand he has an impracticable idea of abolishing "carousing and prostitution".

J.H.G. von Justi's (-1771) work Grundsätze der Polizeiwissenschaft appeared in 1759 also. He takes the dogmatic position, not unlike Bielfeld, that a state never can have too many inhabitants. He naturally then believes that the growth of population should be aided in all possible ways. A million inhabitants on two hundred and fifty square miles would be more powerful than when scattered over a thousand square miles. According to his theory Europe could support six times as many people as it had in his time. He says that a good and wise administration of the government is necessary in order to obtain and maintain a large population. He would relieve the father of six children from taxation and, if a poor man, he would give him aid through a system of pensions. Roscher (2) says that von Justi was the first theoretical writer on administrative enumeration of people, and that many

(1) V. Roscher: Geschichte der National Oekonomie in Deutschland, p. 417.

(2) V. Ibid. p. 455.

of his ideas are still held in high repute and practised. His general views on population, however, seem undeveloped.

Joseph von Sonnenfels (1733-1817) wrote his *Grundsätze der Polizei, Handlung und Finanzwissenschaften* in 1763. In this work he expresses the opinion that the more numerous a population is, the more varied will be the needs and productions and the easier it will be for each to obtain the necessities of life. The hindrances to the increase of the population of a country are mainly painful personal circumstances and these he thinks an enlightened government should carefully watch and endeavor to remove. He thinks the size of a population is in proportion to the amount of industry in which it is employed. A numerous population is necessary in order to obtain a surplus in the national treasury and resources. Three thousand inhabitants to each square mile he regards as the maximum density. He is against banishing people into exile and "perhaps" also against capital punishment. Beggars should be fed, but at the same time they should be compelled to work. Emigration should be forbidden. He thinks in fine that a large population is a nations stronghold - a view held as we have seen by most of his immediate predecessors - but he wishes it understood that such a large population is desirable only in case all the working people are provided with employment. This he regards as feasible under a wise and beneficent administration (1).

Heinrich Jung (1740-1817) was a follower of Sonnenfels
(1) V. Ibid., pp. 538-9.

and his views are practically identical with those of his master (1).

Ludwig von Hess (-) published his Gedanken ueber Staatssachen in 1775. His treatment of the population question results in the same general conclusions as those of Justi and Sonnenfels. In general his work is very loose and immethodical. As a means of promoting general well-being and lessening human ills, he advises the study of natural sciences; for this would lead to investigations of water, air, etc., which would promote the public health. This perhaps is the most sensible suggestion to be found in his Gedanken (2).

Joachim Georg Darjes (1714-1791) makes himself ridiculous in his Erste Grunde by saying that even the increase of beggars brings something into the state's treasury by means of the excise tax which they pay so that even their increase is not undesirable!

August Ludwig Schloezer (1735-1809) differs from his average contemporary radically. He says that for years everybody has been crying population, but experience has shown us that this thesis, like all theses of political speculation, has its limit of truthfulness. It does not apply for instance in places that are half waste desert land nor in districts in which there is already a full quota of people. For bread and people must increase at the same ratio, under the supervision

(1) V. Ibid., p. 553.

(2) V. v. Mohl: Geschichte und Literatur der Polizeiwissenschaften, vol. III, p. 472. Cf. Roscher (Political Economy) in his chapters on population.

of the government. Bread always makes population, but the reverse is not always true. The correct way to estimate the strength of a people he thinks is not by the quantity of food or wealth actually in existence in a state, but by the ease through which by the means of labor a people can obtain their sustenance; this he regards as the true criterion of power and strength.

Justus Möser (1720-1794) showed Schloezer 's views in this particular, and J.J.Reinhard (1714-1770) says too that the size of a population depends on the food supply (1).

Edward Friedrich von Hertzberg (1725-1795) wrote a work entitled *Sur la Population en General et sur celle des Etats Prussiens en Particulier* in 1785. His views as shown in this work are similar to those of Sonnenfels and other writers who believed that the greater the population, the greater would be the power and prosperity of the state. His discussion is pronounced by von Mohl (2) to be a composition of the views of his predecessors and to derive its importance largely from the fact that he was a Prussian minister and not particularly from any intrinsic merit.

Herrenschwand's (-) *De la Economie Politique moderne Discurs sur la population* appeared in 1786. He says that the procreation of the human species appears to have no limits; its nourishment on the contrary has limits; and as long as the human species has not reached this limit, it is susceptible (1) V.Reinhard's *Vermischte Schriften*, bk.I, pp.1 et seq.; bk. II. Cf. Roscher: *Geschichte der National Oekonomik in Deutschland*, p.486.

ible of increase. He shows considerable discernment when he cites instances of hunting populations increasing or diminishing in accordance with the amount of food they had; of pastoral peoples that increased but at the same time were often obliged to send away their surplus of people on marauding expeditions; and of civilized peoples which likewise could increase only to a certain limit defined by the amount of food available. In spite of many digressions in his thought we find much that is now regarded as essentially correct in Herrenschwand's theories; but he fails to give us a well-rounded whole and his work is an unfinished one (1).

There are three medical writers who deserve to be mentioned, as they contributed to the development of population theories indirectly and, to some extent, directly. They are Niederhuber (Beitrage zur Cultur der medicinischen und buergerlichen Bevolkerungs-polizei), and Frank (System der medicinischen Polizei), and Ferber. They were all contemporaries of Herrenschwand.

W.Kerseboom was a Dutch writer and his principal work, *Eerste Deerde Verhandling tot een Proeve om te Wetten de probable Meenigte des Volks*, was written in the middle of the eighteenth century. He elaborated mortality tables show-

(1) Cf. Garnier's *Du Principe de Population*, p.242; Roscher's *Geschichte der National Oekonomik in Deutschland*, p.592.

ing not a little keenness in his methods. His principle, that the expectation of life was somewhat greater for boys than for girls, has had its influence on modern insurance (1).

(1) V. Roscher: Geschichte der National Oekonomie in Deutschland, p.421.

A n a l y s i s .

I n t r o d u c t o r y .

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| 1. Luther. | 15. Justi. |
| 2. Conring. | 16. Sonnenfels. |
| 3. Boecler. | 17. Jung. |
| 4. Becher. | 18. Hess. |
| 5. Pufendorff. | 19. Drjes. |
| 6. Leibnitz. | 20. Schloezer. |
| 7. Seckendorff. | a. Moser. |
| 8. Horneck. | 21. b. Reinhard. |
| 9. Wolff. | 22. Herzberg. |
| 10. Suessmilch. | 23. Herrenschand. |
| 11. Biefeld. | a. Niederhuber. |
| 12. Euler. | 24. b. Frank. |
| 13. Philippi. | c. Ferber. |
| 14. Buesching. | 26. Kerseboom. |

Chapter IV. The Relations of the Mercantile System and the Physiocratic School to Population.

I. The Mercantile System was substantially, perhaps almost entirely, favorable to large and increasing populations. The views of the writers and statesmen usually designated as Mercantilists are, however, not peculiar nor exceptional in this respect; for the prevailing desire of all European nations, when the principles of Mercantilism were embodied in the policy of practically all, was for great populousness; and the writings of the two centuries in which Mercantilism was the prevailing System in Europe, whether the authors accepted the tenets of the System or not, almost without exception advise statesmen to encourage the increase of men by all possible (and impossible) means. In the views of the writers from the days of Louis the Forteenth's famous minister Colbert until the middle of the following century, when the influence of Mercantilism was especially strong, we note a remarkable agreement as to the advisability of enlarging the numbers of people by encouraging marriage, taxing bachelors, offering rewards and immunities to fathers of numerous offspring (though the efficacy of many of these schemes had been disproved many times before and has since both by experience and the logic of philosophers); for it was believed, sometimes with something bordering on fanaticism, that the wealth and strength of the state depended on the number of its inhabitants more than on anything else.

Some writers seem to think that the Mercantilists agreed, entirely, in advocating means for the increase of population (1). But a careful observation of the works of the earlier Mercantile writers, especially, will reveal some slight divergencies. A general cause of this practical agreement may be, and indeed probably was, connected with the military view in which the Mercantile System partly originated; but there can hardly be said to have been any direct, necessary connection between the policy of increasing the population and Mercantilism.

The period in which this System was supreme in most European countries (from the middle of the sixteenth to the middle of the eighteenth century in particular) was one notable on account of the formation and growth of great states possessing powerful and expensive governments. The governments required both men and money for the maintenance of large, permanent armies and the support of splendid and costly courts. Taxation grew as the demands of the government increased. Each nation worked for its own power and preponderance and the rulers began to regard economic supremacy as necessary for the attainment of political pre-eminence. Manufacturers and commerce made a denser population possible and opened more extensive fields to enterprise. Hence they were encouraged by governmental favor and patronage.

(1) E.g. Ingram. History of Political Economy, p. 39; and Rascher, Geschichte der National Oekonomie in Deutschland, p. 239.

The kings desired a full treasury and it did not take them long to discover that in order to insure their power they needed men as well as money; and so we find the desire for wealth ("money") contemporaneous with the oft expressed desire for many subjects (1).

II. The Physiocrats. It is not till the later years of the eighteenth century that we begin to hear many strong voices declaring that populousness is not always the greatest good. This is the period of the influence of the Physiocratic School. Though there seems to be no very definite relation between the Physiocratic doctrines, as such, and this new and more rational manner of looking at the question, the years marking the ascendancy of the Physiocrats correspond closely to the time of the reaction against the old views, which could see nothing but the bright aspects of life and living in a populous country.

Mr. Higgs says that the origin of the Physiocratic School (2) dates from an interview between Quesnay and Mirabeau in July, 1757.

It often seems to the historian that the time was ripe for the promulgation of a particular doctrine and yet there was no one to proclaim it, or else, even though it were proclaimed, it has passed practically unnoticed by the majority of scholars and the generality of the people. This seems to have been the case in the second half of the eighteenth century, in the days of the Physiocrats. There were many writers

(1) Cf. p. 41, for example.

(2) V. Higgs: The Physiocrats, p. 25.

in this School † Quesnay, Mirabeau and others - who had stated, with considerable clearness, the dependence of population on subsistence, but all this had been but little noticed; and when Malthus published his Essay the doctrine seemed to strike men as something entirely new. The doctrines of the Physiocrats did not necessarily favor this new point of view in looking at the problems of population; nor were the followers of Quesnay and Mirabeau the only ones who were able to see some relation between population and its dependence on subsistence. Franklin, Heine, Stewart, Smith and others saw it. Some Physiocrats did not. Still there seems to be some natural connection between this later School and the new doctrine. The "Economistes" throw away the postulates of the old Mercantile writers in regard to the balance of trade and the superiority of ~~the~~ commerce and manufactures to agriculture, and this naturally, almost, leads to a study of the ability of agricultural produce to support people, and the relation between the two. We then see that the Physiocrats stand in a position from which they can more readily and correctly investigate the problem. They can see the disadvantages of large populations which have not enough agricultural produce - food - to support them; while the Mercantilists are not so apt to perceive any drawbacks here, for their attention is devoted to commerce and essays on commerce and they fail to study agriculture in its relation to humanity and human needs.

Chapter V. French Doctrines.

In France we note a development of thought consistent with that expressed in other European countries. The view taken is almost without exception one favoring great populousness. The question is considered not in its relation to the happiness and welfare of the masses, as a rule or primarily, but from the statesman's point of view: Will it increase the surplus in the exchequer? Will it provide the king with a greater revenue? We note too, however, that writers in the later part of the period discussed begin to take less one-sided and dogmatic views, and altogether a proximation to the theories of Malthus on the problem.

Henry the Fourth showed a great deal of insight (for a French king) when he said "The strength and riches of kings consists in the number and opulence of their subjects (1).

Bodin's (1530-1597) *La Republique* was published in 1576. He objects to Sir Thomas More's idea that there should be not less than ten nor more than sixteen children in each family, "as if he could make nature obey his orders" (2). He objects to any Utopian communism on the ground of its probable effect on population. Rather than an absolute equality he would have us aim at such a distribution of wealth as would strengthen the middle classes; who are neither rich nor poor, and as would not tend to multiply and weaken the poor. Such causes of poverty as confiscations and excessive taxation should be removed, as should also such causes of great op-

(1) Cf. *Nouveau Dictionnaire d'Economie Politique*, p. 612.

(2) Cf. p. 55.

ulence as the intermarriage of the rich.

The Duc de Sully, Maximilien de Béthune (1560-1641) believed that populousness should be encouraged, and recommended that agriculture and stock-raising be developed to strengthen and enrich the people.

Colbert (1619-1683) is to be noted in this connection for the part he played in the passage of the laws relating to marriage and offspring in the reign of Louis the Fourteenth in 1666. These laws decreed that whoever married before his twentieth year should be exempt from taxation until his twenty-fifth year; that any one who had ten legitimate children living, excluding priests, should be exempt from taxation the remaining part of his life; that a nobleman having ten children should moreover receive a pension of one thousand livres, and one having twelve two thousand livres; that other persons having twelve children were to receive half the amount of the nobleman's pension, besides to be exempt from municipal burdens for life. But these premiums proved to be superfluous and worse than useless, for no nobleman or other person would desire ten or twelve children simply to obtain the rewards offered. Colbert abandoned these ideas before his death; but we find writers, generations later, advocating the scheme which his experience proved vain.

Vauban (1633-1707), in his *Projet d'une Dixme Royale*, seems to be against the increase of the upper (idle) classes, but in his opinion the highest aim of the state should be the increase of the lower (working) class; and he sees an advantage to the king ("l'etat c'est moi") in the birth of every

child of the working classes (1), for from them the state obtains its revenues; by them the state is defended in war and strengthened in peace.

Boisguillebert (1646-1714) shared Vauban's belief in the importance of a large wealth-producing population.

Richard Cantillon (1685-1724) wrote his *Essai sur la Nature du Commerce en General* about 1732 (2). The title of the fifteenth chapter of this work gives us in a brief and vague manner his theory: "La multiplication et la decroissement des peuples dans un etat dependent principalement de la volonte, des modes et des facons de vivre des proprietaires." If proprietors, or owners, of a land heartily desire the multiplication of men; if they encourage peasants to marry young and to rear children with promises of their future support, they can without doubt aid in increasing the population; but if on the other hand the government or proprietors take opposite measures, raising the rents and the prices of the necessities of life, and make use of similar practices generally, the population will necessarily diminish.

Jean Francois Melon (-1738) in a similar *Essai Politique sur la Commerce* takes the old view in favor of populousness and his opinions in general are like those of John Law, whose disciple he was.

A. Deparcieux (1703-1768) is of indirect importance, for the purpose of the writer of this dissertation. His *Essai sur* (1) V. Daire's *Collection des Principaux Economistes*, p.150; cf. Roscher's *Political Economy*, vol.II, p.344.

(2) A report of this work was made for Harvard University in 1892.

la probabilité de la Durée de la vie Humaine appeared in 1746. It has been of value and well known on account of the results he obtained from his careful investigations of the mortality records of a French Province and a Roman Catholic religious order.

Charles Montesquieu's (1689-1755) famous *Esprit des Loix* was published in 1748. He treats the various phases of population quite fully in his twenty-third book. "Wherever two people are able to live together conveniently a marriage is the inevitable result" (1). Population will always tend to be as large as the means of subsistence will permit. He says that the females of brutes have an almost constant fecundity; but, in the human species, the manner of thinking, character, the passions and humors, the caprices, the idea of preserving beauty, the pains of childbirth, the fatigue incident to supporting a numerous family and other things obstruct propagation. A rising people multiply extremely because with them it would be a hardship to live in celibacy and none to have many children. In commenting on the great populousness of cities on the coasts he suggests that possibly the diet, which consists largely of fish, may have physical effects which induce procreation and make marriage more fruitful.

Herbert (1700-1758) expresses views favoring the increase of population in his *Essai sur la Police des Grains*.

Francois de Forbonnais (1722-1800) in the *Finances de la France* gives expression to the old Mercantile belief, that (1) V. *Spirit of the Laws*, bk. XXIII, ch. x, p. 139; trans. by Thos. Nugent, London, 1773. Cf. also ch. i of the same book.

one of the principal objects of a good industrial policy on the part of the state should be to employ as many men as possible. He also believed that the Colbertian system of premiums was an effective method of aiding in the desired increase of people.

Victor Mirabeau's (1715-1789) famous work bearing the title *L'Ami des Hommes*, ^{ou} ~~un~~ *Traité de la Population* was published in 1755. He regards the desirability of a large population as unquestionable (1). He had first taught that population was a source of revenue, but he later acknowledged his error (2). Only a small part of *L'Ami des Hommes* is devoted to what the subtitle, *Population*, would lead us to infer. He shows his Physiocratic leanings in that he demands special encouragement ~~of~~ agriculture, as it is from this we derive our subsistence. He thinks the man who keeps a beast of burden is an "enemy to society", because he thereby deprives four human beings of the means of obtaining a subsistence. He does not believe that ecclesiastical celibacy has any effects on population (3). He condemns the luxury of his age because it means the diminution of that which is so valuable a constituent of society - a well-fed working class. Dr. Gustav Cohn says, "The results he arrived at establish the principle (afterwards developed by James Stewart in 1767 (4)- that the size of a population depends on the quantity of food and the

(1) V.Bks.I-V.

(2) Cf. Higgs: *The Physiocrats*, p.23; London 1897.

(3) Cf. *Journal des Economistes*, vol.30, 1885, p.173.

(4) Cf. p. 60

degree of civilization, - a small band of savages requiring an extent of territory which, if well-tilled, would suffice for a vast population" (1).

Quesnay's (1694-1774) Tableau Economique appeared in 1758. In Maximes XXV and XXVI he says that we should be less attentive to the increase of ~~wealth~~ population than to the increase of wealth; for the natural resources certainly are greater when the people are well-to-do and when agriculture is prospering than when the population is great but suffering for want of food. The dependence of population on subsistence and the tendency of population to overtake, if not to exceed, the means of subsistence are stated by Quesnay as follows: "La propagation n'a des bornes que celles de la subsistence et elle tend toujours a passer au dela; partout il y a des hommes dans l'indigence."

Morelly (-) wrote his Code de la Nature about this time. In this work he endeavors to work out a system, socialistic in form, to promote the growth of population by encouraging marriage and preventing debauchery. His views are summarized thus by Garnier (2) :

1. Every citizen of the age of puberty should marry (that is, not later than the the fourteenth year) and no person should be expected, unless his physical condition were an obstacle.

(1) V. History of Political Economy, p.28; trans. by J.A.Hill, Supplement to Annals of Am.Acad., 1894.

(2) V. Du Principe de Population, p.312.

2. At the beginning of each year the young of both sexes should congregate, and each boy should choose a girl for his wife.

3. Every man should be a public man; that is sustained and occupied at public expense.

4. Every person should contribute to the public resources according to his nature, talent and age.

Moheau (-) shows that he has been a careful investigator in his *Recherches et Considerations sur la Population de la France*. His work is divided into two parts. In the first, the various peculiarities of a country are considered and estimated, but his Estimates, according to von Mohl (1), are much too small. His method, however, is very careful and in smaller details is often correct; but in making estimates covering a number of years or a large territory he generally goes astray. His conclusions are not necessarily incorrect, but, if they are correct, it is often more the result of accident than anything else: In the second part, there are investigations into all manner of conditions and problems that have any bearing on population; as, air, nourishment, work, government, luxury, etc. Many sound observations may be discovered here; but he overlooks entirely any relation between the quantity of the means of subsistence and the population.

George Louis de Buffon (1707-1788) considers men as urged like other animals by natural instinct (2); as directed like them by the same desires of procreation; and as subsis-

(1) V. von Mohl: *Geschichte und Literatur der Staatswissenschaften*, vol. III, p. 448.

(2) V. Chalmer's *Estimate*, p. 1; ed. 1794, London.

ting afterwards, or being destroyed, by similar means.

Voltaire (1694-1778) says that the principal point is not to have an excess of men, but to make those we have as little unhappy as possible. He does not hesitate to sneer at the enthusiastic promoters of population. He does not believe in any theory of increase based on geometrical progression and says that all calculations made on this basis are chimerical and absurd; nature maintains the numbers of men as they should be and is not occupied solely with births and destructions. His discussion is brilliant, but perhaps not always as rational as an article in a philosophical dictionary should be. His superficial views are doubtless due to the fact that he regarded time spent on this subject and economic speculation in general as not worth while (1).

Francis Jean Chastellux (1734-1788) published a work entitled *De la Felicite Publique en Considerations sur le Sort des Hommes dans les Differentes Epoques de l'Histoire*, in 1772. Palgrave's Dictionary of Political Economy contains the following opinion of his work: "The work, if out of date in form, is yet full of ideas which would do no discredit to a work of our own times. - - He discussed the question of population a quarter of a century earlier than Malthus and from the same point of view as that distinguished Economist. Chastellux was however unable to shape his discussion into a well-rounded theory."

Jaques Necker (1732-1804) agrees with the usual conservative view of his time in favoring a large population. His

(1) V. Article, Population, Dictionnaire Philosophique.

general theory was the same as Montesquieu's. He treats briefly of the subject in his *Administration des Finances* (Bk. IX) and *De la Legislation et du Commerce des Grains*.

Turgot's (1727-1781) doctrine concerning the tendency of wages to a minimum probably implies a similar view of the tendency of population to a maximum.

Rousseau (1712-1778) published his *Contrat Social* in 1762. He says, "All things being equal that government under which, without foreign means, without naturalizations and without colonies, the citizens increase and multiply most rapidly is infallibly the better" (1). He falls into the common error of confusing cause and effect; for he regards a large population as a certain proof and source of wealth and satisfactory economic conditions, "all things being equal".

Saint Cyran's *Coleul des Rentes Vagères* appeared in 1779, and is like Messances' and Moheau's works in its treatment of mortality records with the resulting application to insurance. Duvillard de Durand does a similar work in his *Recherches sur les Rentes* (1787).

Marie Coritat Condorcet (1743-1794) is quoted by Malthus from his *Esquisse d'un Tableau Historique des Progres de l'Esprit Humain* (1794), as follows: In the progress of industry and happiness each generation will be called to more extended enjoyments and in consequence, by the physical conditions of the human frame, to an increase in the number of individuals. Must there not arrive a period then when these

(1) V. Bk. III, chapt. 9.

forces shall counteract each other; when the increase in the number of men surpassing their means of subsistence, the necessary result must be a continued diminution of happiness and population - a movement truly retrograde? Will it not mark the limit when further melioration will become impossible and point the term to the perfectibility of the human race, which it may reach in the course of centuries but may never pass?" Condorcet goes on to show us that there is no danger of this alternative; for if this period should ever arrive he would have us adopt a system of promiscuous concubinage which would not result in a large ~~population~~ birth-rate; "or", as Malthus remarks, "he would have us practise something else as unnatural." In spite of some absurd theories in his works we note nevertheless that Condorcet sees very clearly the dependence of population on its means of subsistence.

A n a l y s i s .

I n t r o d u c t o r y .

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| 1. Henry IV. | 14. Quesnay. |
| 2. Bodin. | 15. Morelly. |
| 3. Sully. | 16. Moheau. |
| 4. Colbert. | 17. Buffon. |
| 5. Vaubau. | 18. Voltaire. |
| 6. Boisguillebert. | 19. Chastellux. |
| 7. Cantillon. | 20. Necker. |
| 8. Melon. | 21. Turgot. |
| 9. Deparcieux. | 22. Rousseau. |
| 10. Montesquieu. | a. Cyran. |
| 11. Herbert. | 23. b. Durand. |
| 12. Forbonnais. | 24. Condorcet. |
| 13. Mirabeau. | |

Chapter VI. English Doctrines.

The growth of English thought and the steadily increasing breadth of view taken are especially apparent here. Altogether we note a development similar to that in other countries. In the earlier writers we see a disposition to regard large populations with disfavor; but this soon gives way to an almost universal desire to increase the population as much as possible. In the later years of the eighteenth century we meet unmistakable harbingers of the doctrine which Malthus was destined to put into definite form.

The original Latin edition of Sir Thomas More's (1478-1538) *Utopia* appeared in 1516. In a chapter called "On their living and mutual Conversation together", he tells us how the people of an ideal state should be kept from increasing or decreasing "above measure". No family should have less than ten nor more than sixteen children above fourteen years of age. This regulation, he thinks, would keep the population in correct proportions and could easily be maintained, "by putting them that in fuller families be above the number into families of smaller increase." And if a city should become too populous the excess could be removed to places less fully peopled. In *Utopia* a decrease in numbers occurs at times "Through a greate pestilente plage". More seems to have seen the tendency of population to increase and also, to some extent, the checks to its growth, in a vague way; and he was evidently able to comprehend that a teeming population was not always desirable.

Sir Walter Raleigh (1532-1618) calls his readers' at-

tention, in various parts of his voluminous Works, to the fact that natural tendencies and physical possibilities would ultimately lead to overpopulation, were it not for hunger, pestilence, crime, war, immorality, etc. He seems to understand that there are checks (only the "positive" ones however) to the increase of population; but he does not, of course, formulate his ideas into a system, nor does he go so far as to indicate the results of excessive overpopulation (1).

Francis Bacon (1560-1626) shows the dread of overpopulation prevailing in England at this time in his sketch *De Colonia in Hiberniam Deducenda*. He recommended colonial projects to avert the danger. He wished to preserve the population in symmetrical proportions, and he hoped that means would be discovered by which to prolong human life (2).

Hobbes (1588-1679) thinks that, if the numbers of people at home are growing too large, they should be transferred to less thickly settled lands. This would not lead to the extermination of the people already settled in the less populous country, but to the better cultivation of the soil. In the end, however, "if the earth be too strait", for the feeding of its inhabitants, he sees no resort but war. His views are then very similar to those of More and Bacon (3).

(1) Cf. Block: *Les Progres de la Science Economique*, vol. I chapt. Population.

(2) V. *History of Life and Death*; cf. Roscher's *Political Economy*, vol. II, p. 355.

(3) V. De Cive; cf. Bonar's *Philosophy*, p. 84.

James Harrington (1611-1677) says that population increases slowly. Even in his ideal state it increases in forty-one years by only one-third. He would encourage population by granting an exemption from taxes to every man who has ten children and partial exemption to the man who has five; and if a man has been married three years and still has no children lawfully begotten or is above twenty-five years of age and unmarried, he should be obliged to pay double the usual amount of taxes (1).

Sir William Temple (1628-1699) regards an increasing population as a remedy for most economic and political ills. He too favors the old idea of taxing bachelors, and encouraging immigration. A population increases where the climate is favorable to generation; where the government is secure and wisely managed, and where trade flourishes. "The true and natural ground of trade and riches is numbers of people in proportion to the compass of ground they inhabit. This makes all things necessary to life dear, and that forces men to industry and parsimony. - - - A place must grow in traffic and riches when industrious and populous, if not disturbed by some accidents or revolutions, such as wars - - - by which the people are scattered or destroyed" (2).

Sir Josiah Child's (1630-1699) *New discourse of Trade* was published in 1668. He calls attention to the fact that the

(1) *V. Commonwealth of Oceana*, Published in 1656.

V. Works, p.97; London 1771, ed. Millar.

(2) *V. Wm. Temple: Works*, pp.2 et seq.; London, 1814.

size of a population depends on the state of industry, and that it cannot increase but in proportion as industry does. In his tenth chapter, "Concerning Plantations", Child argues in a manner worthy of Malthus that the colonies have not caused the depopulation of England. His declaration, that most nations in civilized parts of the world are more or less rich or poor in proportion to the paucity or plenty of people, is more disputable.

Sir Matthew Hale (1609-1676) is in advance of most of his contemporaries in his views on population, as given in *The Primitive Origin of Mankind*. He endeavors by various calculations to prove that every human population is able in a comparatively short period of time to increase very perceptibly, and he says that this increase occurs at a "geometrical rate". According to his reasoning, a population may double itself in thirty-four years; but, as at this rate of increase the population would long since have passed beyond the limit set by the means of subsistence, he explains the really comparatively small population as due to the workings of various checks; such as, famines, wars, pestilences and earthquakes; and he cites historical instances in proof of his assertion. But in spite of all these checks, he says, population increases. He does not establish any very definite principles on the basis of his observations.

J. Graunt's (1620-1674) *Natural and Political Observations upon the Bills of Mortality* is one of the first investigations which in England uses mortality records as a basis of operations. He makes calculations concerning the duration

of life; and he estimates the periods in which population will double itself as two hundred and eighty years in the city of London, - the more rapid increase in the city being attributed to immigration. He remarks on the rapid filling of gaps made by plagues, and discusses many incidental details of population. Von Mohl says (1) that his work is not valuable in itself, but its value lies in the endeavors of the author to discover general laws through the various conditions of population.

Sir William Petty's (1623-1687) Political Arithmetick is far superior to Graunt's similar work. He falls into greater errors than his predecessor, but his work nevertheless marks a step in advance. He often comes to peculiar conclusions. The population of London doubles every forty years according to his calculations. The only hindrances he sees to increase in numbers are wars, plagues and famines; and he argued "tis possible to increase mankind by generation four times more than at present".

Edmund Halley (1656-1742) wrote an Estimate of the Degrees of Mortality of Mankind drawn from the Tables of the city of Breslaw in 1691. He made use of the death records of this city to prove that population continues stationary.

John Locke (1632-1704) thinks that numbers of men are better for a nation than extent of territory; for where there are many hands there is much work done and wealth created (2)

(1) Cf. Geschichte und Literatur der Staatswissenschaften, vol. III, p. 445.

(2) V. Consideration of Lowering of Interest.

John Law (1671-1729) regards commerce as the best means of augmenting the population. His real idea was probably that wealth (including sufficient means of subsistence) would cause the people to increase; but he confuses this with his monetary theories and his ideas become vague and chimerical.

Berkeley (1685-1753) makes suggestions which are not far in advance of his time (1). He proposes, for example, a bounty on children and that one-half of the estate of an unmarried man be confiscated.

A. de Moëvre's Annuities upon Lives or Valuation of Annuities appeared in 1726. This book, like Theodore Simpson's Doctrine of Annuities and Reversions which was published a few years later, treated the question in a superficial manner and enjoyed a popularity which continued only a few years. Thomas Short's New Observations on Town and Country Bills of Mortality is built on a more solid foundation - numbers combined with personal observations - than the works of his two predecessors. Many shortcomings are however painfully apparent. He bases his reasoning on English experience and conditions almost solely, and endeavors in this way to develop a natural law of population, which he does in a crude and fallible manner. Corbyn Morris belongs to the same class of writers as Short. His work is entitled Observations on the Past and Present State of the City of London and was published in 1750.

Daniel DeFoe (1668-1731) published his Plan of English Commerce 1730. In true Mercantile fashion ^{W. Richardson} he argues for the

(1) V. Essays towards preventing the Ruin of Great Britain.

increase of foreign trade (1). The decline of foreign trade is to be avoided for several reasons among the most important of which he says is, that it will result in a decrease in the stock of people; for as employment consequently lessens, the most industrious rather than starve here will fly to other countries where trade can maintain them; so the consumption of these being taken away the demand at market must grow less, and many unfortunate economic results will follow. "Besides", he ~~xxxvxxx~~ continues later, "'tis men that trade and bring in money, and therefore the fewer there are, the less money will be brought in; and the less money, the less rent can be given for land." Among the "benefits arising from free port trade", he lays stress especially on this, "that it will increase the stock of people," first by inviting merchants to settle where business can be transacted with so little trouble and, secondly, by furnishing employment to the poor laborers. He advocates the abolition of the numerous monopolies existing in his time, as this would have a favorable effect on population; "for wherever trade is the most free, thither people flock". He advises the withdrawal of bounties on exported corn for similar reasons. Among "the benefits arising by well regulating our poor and paying off our debts in publick bonds", he does not neglect to give as one reason that "it will increase the stock (that is the number) of people".

Josiah Tucker (1712-1769) in a Brief Essay on Trade (1748) says that "the marriage state is not sufficiently en-

(1) Select Tracts on Commerce (ed. McCulloch, London, 1859), pp. 212, 246, 297.

couraged among us". He deplures the large number of prostitutes in London, and says that ten thousand of them are not so fruitful as fifty young married women; "by which means the State is defrauded of an increase of upwards of 199 subjects out of 200 every year". He speaks with considerable feeling of the vices of unmarried men and women of the time and urges the government to pass laws compelling bachelors over twenty-five years to pay "treble Kings tax,- poor tax,- window tax,- and the taxes upon coaches, till they marry"; That widoers, between thirty and fifty, if they have ^{no} children, shall pay double (1).

Benjamin Franklin (1706-1790) considers population in his Observations on the Increase of Mankind, written in 1751. There is no limit, according to Franklin, to the prolific nature of plants or animals but that which is made by their crowding and interfering with each other's means of subsistence; but mankind is controlled by other checks besides these. To quote from the Essay mentioned: "People increase in proportion to the number of marriages and that is greater in proportion to the the ease and convenience of supporting a family. When families can be easily supported, more persons marry and earlier in life. - - The prince that acquires new territory or removes natives to give his own people room; the legislator that makes effectual laws for promoting trade, increasing employment, improving land by more or better tillage, providing more food by fisheries, securing property, etc.; and the man that invents new trades, arts or manufac-

(1) Ibid., pp. 407-8.

tures or new improvements in husbandry may properly be called fathers of the nation, as they cause the generation of multitudes by encouragement which they afford to marriage". Large cities and fully settled countries do not increase rapidly by generation or otherwise, because, the difficulty of earning a living is greater in them than in less thickly settled districts. The different rates of increase in Europe and America he explains in this way. He finds that the population is doubled "at least every twenty years" in the Colonies; for the marriages are greater in number and are contracted earlier and result in more children than in older countries. He does not believe that privileges or premiums can effectually increase a people beyond the means provided for their subsistence. From all this we come to the conclusion that Franklin showed as much shrewd common-sense in his theories of population as in most other particulars.

David Hume (1711-1776), in his Discourse on the Populations of Ancient Nations says that where the prolific nature of men act in its full extent population would increase very rapidly, but it is held in check by poverty and necessity (1) "Almost every man who thinks he can maintain a family will have one; and the human species at this rate of propagation would more than double every generation, would more than double every generation, were every one coupled as soon as he comes to maturity. - - History tells us frequently of plagues that have swept away the third or fourth part of a people; yet in a generation or two the destruction was not perceived. The

(1) V. Political Discourses, published in 1752.

lands that were cultivated, the commodities - - raised, enabled the people who escaped to marry and to rear children who supplied the place of those that perished." He thinks that slavery had a baneful influence on population because there were so many hardships and restrictions imposed on the slaves; this causes him to come to the conclusion that ancient slave-holding nations were not so populous as Doctor Wallace supposed. He says that the bulk of the population now comes from small communities and not from the large cities (1).

Robert Wallace (1697-1771) wrote his *Various Prospects of Mankind in Ancient and Modern Times* shortly after the appearance of Hume's *Discourses*. He takes an opposite view in regard to slavery, as stated above; he thinks slavery is very fruitful; this, and his belief that the increase of mankind may be so slow that the result may be smaller population in one period than in those preceding it, makes him come to the conclusion that ancient nations were more populous than European countries were in his day. We find a table in his works by which he endeavors to show that population naturally tends to increase in a geometrical ratio in periods of approximately thirty-three years. His figures become so ludicrously large, in carrying out his proposition for a few hundred years

(1) Ohne Zweifel ist die Ganze Arbeit das Beste was ueberhaupt vor Malthus ueber das Bevolkerungswesen geschrieben worden ist (wenn schon in ganz verschiedener Richtung). -v.
Mohl: Geschichte u.s.w., vol. III, p. 424.

that he remarks, "Such a consequence is therefore inconsistent with fact, as well as the experience of the world concerning the proportion between births and deaths." He says further that every marriage must produce more than one couple or the population would decrease or remain stationary. The reason every generation does not increase at the natural geometrical ratio every thirty-three years is not due to a want of prolific virtue, but to circumstances which distress mankind. The causes retarding or preventing the growth of population he divides into physical and moral: in the first class he includes climate, barrenness of the soil, plagues, famines, earthquakes, floods, etc.; in the second, poverty, corrupt institutions, intemperance, debauchery, idleness, luxury and whatever either prevents marriage or weakens the generative faculties of men.

William Bell (1731-1816) wrote a work on What Causes Contribute to Render a Nation Populous, in 1756. He was probably inspired by Wallace, as he takes the same point of view. According to Bell, modern arts and institutions tend to diminish population, for there are not originally prescribed any bounds to human nature. Modern institutions divert labor from being employed in producing the necessities of life, and they make, through the influx of money, the prices of provisions high and render the support of families difficult. He recommends a republican form of government as most favorable to the increase of population.

William Temple (a clothier of Trowbridge in the eighteenth century) published his Vindication of Commerce and

the Arts, in 1758 (1). It was written to refute the conclusions of Bell's essay, in which it was asserted that agriculture was the main cause of populousness, besides contemning commerce and the arts as useless and pernicious. Temple on his side attributes "populosity" to more various causes - such as, good laws, religious toleration, encouragement of foreign commerce and immigration, climate, the employment of foreign mercenary troops; and he thinks that agricultural pursuits and rural simplicity can not give a strong enough spur to increase population or to produce wealth beyond the customary necessaries and comforts of the workers: if they could be produced by three days' labor the average laborer would work only three days. A great plenty and a great industry must be incompatible, - chiefly for the want of the spur of necessity, besides the temptation to debauchery. Bell's view then is one taken from a Physiocratic standpoint, while Temple's is inspired by a devotion to the advantages of trade.

Adam Ferguson's (1723-1818) History of Civil Society appeared in 1767. He says, "Men will crowd where the situation is tempting and in a few generations will people every country to the measure of its subsistence (2). He does not believe in the efficacy of premiums as rewards for marriage or rearing large families. He recognizes what Malthus later designated as the "preventive" check. He declares that the

(1) V. McCulloch's Select Tracts, etc., pp. 481 et seq.

(2) V. History of Civil Society, p. 212; Edinburgh, 1767.

increase of mankind, which attends the accumulation of wealth, has its limits. "When the possessions, however redundant fall short of the standard, and a fortune supposed sufficient for marriage is attained with difficulty, population is checked or begins to decline." Fergusson does not realize that instead of this the result might be a lowering of the standard of living without a decrease in the numbers born and reared.

James Stewart (1712-1784) treats quite thoroughly of the subject in his Inquiry into the principles of Political Economy, published in 1767. His views are expressed in these sentences from this Inquiry: "A people is no more able to prevent its increase than a tree to prevent itself from sprouting. But to live, nourishment is necessary; and as increase of food always has an end, population must also stop. This is a political disease accompanied by much misery - - - and I vow I do not know the remedy. - - - Mankind have been, as to numbers, and must ever be in proportion to the food produced by the earth for their nourishment; and the food produced will be in the compound proportion of the fertility of the soil and the industry of the inhabitants." He emphasized the importance of agriculture in its relation to population. He adopted an arrangement of his material far superior to many of his successors, and like Mirabeau traces out the historical reasons for the increase of population, in a manner unequalled for thoroughness, moderation and lucidity by any subsequent writer down to the time of Malthus. His work is in strong contrast to that of teleo-theological German contemporary, Suessmilch. He declares that his purpose

is not to examine the supernatural means by which God multiplied the people.

Arthur Young (1741-1820) treats the subject of population incidentally in his *Voyages and Travels*, and in his *Political Arithmetic* published in 1774. He thinks the need of multiplying the people need not for a single instant take the attention of governments. If the population is stationary it means that it is large enough; if it exceeds the number of men who are able to find employment, an increase in misery, disease and crime will be the result. An unemployed population is worse than useless; find employment, and the people will multiply of their own accord (1).

Adam Smith (1723-1790) says that the demand for men necessarily regulates the production of men; quickens it when it goes on too slowly and stops it when it advances too far. "Every species of animals naturally multiplies in proportion to its means of subsistence and no species can ever multiply beyond it." He notes the rapid increase in the American colonies, and the causes thereof. The population, he says, doubles there in twenty or twenty-five years not through immigration but "by great multiplication of the species." He recognizes the dependence of man and the increase of population on wages in these sentences: "A man must always live by his work and his wages must at least be sufficient to maintain him. They must even upon most occasions be somewhat more; otherwise it would be impossible for him to bring up a family and the race of such workmen could not last beyond the

(1) V. Pinkerton's *Travels*, vol. IV.

first generation." He does not state directly that the division of labor increases population; but he says that the division of labor lowers the prices of articles and enables a person's labor to buy more, so that from this we infer that division of labor will tend to increase the number of the working classes especially. Although poverty does not prevent marriage and generation, it usually shortens the life of the offspring of the poor, on account of the manifold hardships they are obliged to endure. The greatest mortality will be found among the children of the poor working people. The liberal reward of labor, by enabling the laborer to provide better for his children, naturally causes population to increase. If the reward of labor is not sufficient to supply the needs of the laborer and his family, the deficiency of hands would soon be felt and the reward of labor would rise; and vice versa. An increase of "stock", he says, will raise wages though it will lower profits; and this rise in wages has the natural effect of encouraging marriage and increasing population (1).

Richard Price (1723-1791) published his *Essay on the Population of England from the Revolution to the Present Time* in 1780. He had also written a work on insurance which appeared a few years earlier. His works throw some light on insurance and treat of the increase and decrease of population. He tries to come to certain conclusions with the aid of mathematical investigation; but he is misled by relying too confidently on his formulas. Even with his great techni-

(1) *V. Wealth of Nations*, Bk. I, chaps. iii and iv.

cal ability he made mistakes, largely because he did not rely enough on personal observation. He belongs to that class of writers and philosophers who were seemingly continually tormented by fears of depopulation. He does not however hesitate to forbid immigration to cities and to punish those who break marriage vows. He seems to be somewhat contradictory here as he believes in complete freedom of action.

W. Wales (died 1798) and J. Howlett (1731-1800) wrote treatises, of not much note, on population; the work of the former being entitled Inquiry into the Present state of England and Wales, - of the latter, An Examination of Dr. Price's Essay. Wales regards the idea of taxing bachelors as a good one and thinks that an increasing population would be free from nearly all ordinary evils. They both assume that numbers mean strength.

J. Townsend (1739-1816) refers to population problems in his Dissertation on the Poor Laws (1786) and in his Journey through Spain (1787) and elsewhere. His theories have a striking resemblance to those of Malthus. He shows the possibility of the continued doubling of population in definite periods and also the tendency to increase at a geometrical ratio; while the means of subsistence ^{increase} more slowly.

George Chalmers (1742-1825) says, "It is instinct which is the cause of procreation (1); but it is food that keeps the population full and accumulates numbers. The force of the first principle we behold in the numbers, whether of the fish of the sea or the beasts of the field, which are yearly

(1) V. An Estimate of the Strength of Great Britain (published in 1794), pp.2 et seq.

produced: we perceive, however, the essential consequences of the last from the vast numbers that annually perish for want. - - In the same manner Mankind will be found to increase in every condition and in every age, according to the standard of their subsistence. - - It seems reasonable to expect, if everything be equal that where there are the wisest institutions and the most happiness, there will also be the most people.

A n a l y s i s .

I n t r o d u c t o r y .

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|------------------|--------------------|
| 1. More. | 16. DeFoe. |
| 2. Raleigh. | 17. Tucker. |
| 3. Bacon. | 18. Franklin. |
| 4. Hobbes. | 19. Hume. |
| 5. Harrington. | 20. Wallace. |
| 6. Temple (Sir). | 21. Bell. |
| 7. Child. | 22. Temple. |
| 8. Hale. | 23. Fergusson. |
| 9. Graunt. | 24. Stewart. |
| 10. Petty. | 25. Young. |
| 11. Halley. | 26. Smith. |
| 12. Locke. | 27. Price. |
| 13. Law. | a. Wales. |
| 14. Berkeley. | 28. b. Howlett. |
| a. de Moivre. | 29. Townsend. |
| b. Simpson. | 30. Chalmers. |
| 15. c. Short. | |
| d. Morris. | |

Chapter VII. Conclusion.

Although Malthus gave the world an extensive and valuable treatise on the problems of population and although his work has given rise to a great many discussions, it is difficult to say just what real contribution to knowledge he has given us, and it is difficult to discover just what principles he published which had not already been given to the world. Malthus was familiar with some of the English and French writings on the subject, as we learn from his acknowledgements in the Essay; but he believed "much remained yet to be done". He was not satisfied with the statements of conclusions in the works of his predecessors, and so he endeavored to make his Essay more exact and conclusive. This he thought he had done when he gave to the world the proposition that population increases in a geometrical and food in an arithmetical ratio; which however does not give us such valuable information as he supposed. That he used the terminology of "positive" and "preventive" checks does not in reality mean more than the simpler explanations of earlier writers, such as Franklin and Stewart.

Among the circumstances which contribute to making Malthus's work notable and known we may note the attention given to Godwin's work on Political Justice, to which the Essay was a reply; and the importance of the question at the time, connected, in a way, as it was with the Parliamentary debates

on the poor laws and Pitt's proposition (1). Malthus displayed more skill than his predecessors in showing the relation of the theory of population to general economic doctrines and problems.

(1) In 1796 Pitt proposed in Parliament to recompense the fathers of numerous families. "Let us", He says, "make relief in cases where there are a number of children a matter of right and honour, instead of a ground of opprobrium and contempt. This will make a large family a blessing and not a curse; and this will draw a proper line of distinction between those who are able to provide for themselves by their labour, and those who, after having enriched their country with a number of children, have a claim upon its assistance for support." - Quoted by Richard in his Principles of Political Economy. Chapt.V.

Malthus's work was a great work, written in an opportune time, and, though it cannot lay claim to any considerable originality as far as the theories presented are concerned, it was successful in that it showed more fully, perhaps more clearly, and certainly more effectively than had any previous work, that population depends on the food supply and that its increase is checked especially by want, vice and disease and by moral restraint, or prudence.

To summarize the trend of thought on the problems connected with population, we would say, that the influence of ancient religious systems favored increase; that with Christianity there came a reaction, more moral and personal than politico-economic in its nature, teaching continence and having its effect on population; that the Greeks favored restriction of numbers, with a physical and mental improvement in the offspring; that the Romans desired a large population, for in this they saw strength and supremacy; that the general trend of Mediaeval thought favored increase; that in the early years of the modern age there was apparent, in the writings of European philosophers and statesmen, a realization of the evils which sometimes accompany large numbers; that from about the time of Colbert to the middle of the eighteenth century (but also before and later) scholars and statesmen and governments agreed, that in large populations lay the bone and sinew of the state, and few evils; that from this time on scholars begin to see the relation of population to the food supply. Finally we conclude that Malthus's doctrine was not

original, per se, but that his Essay systematized what had been written before and placed the new theories plainly before the world.

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I - N - D - E - X

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Bacon	49.	Henry IV	37.
Becher	20,21.	Herbert	40.
Bell	58.	Herodotus	5.
Berkeley	53.	Herrenschwand	29.
Bible	2.	Herzberg	29.
Bielfeld	25.	Hess	28.
Bodin	37.	Hobbes	49.
Boecler	20.	Hornbeck	22.
Boisguillebert	39.	Howlett	63.
Botero	11.	Hume	56,57.
Buddhism	4.	Jung	27,28.
Buesching	26.	Justi	26.
Buffon	43,44.	Kerseboom	30.
Catholicism	2,3.	Lau	23.
Caesar	7.	Law	53.
Cantillon	39.	Leges Julia et Papia Poppoea	7.
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Colbert	38.	Majorian	8.
Condorcet	45,46.	Mariana	12.
Confucius	4.	Mediaeval Thought	8,9.
Conring	18,19.	Melon	39.
Criticism	16.	Mercantilism	33-35.
Darjes	28.	Mirabeau	41,42.
Defoe	53,54.	Mohammedanism	4.
Deparcieux	39,40.	Moheau	43.
Durand	45.	de Moivre	53.
Euler	25.	Montesquieu	40.
Ferber	30.	More	48.
Fergusson	59,60.	Morelly	42.
Filangieri	13.	Morris	53.
Frank 3	30.	Moser	29.
Franklin	55,56.	Necker	44,45.
Forbonnais	40,41.	Niederhuber	30.
Genovesi	14.	Ortes	14,15,16.
Gemmetrical Ration	14,15.	Papia Poppoea	7.
Graunt	51,52.		
Grecian Thought	5,6.		

Patricius	12.	Sonnenfels	27.
Petty	52.	Suesmilch	23,24.
Philippi	25.	Spinoza	12.
Physiocrats	35-36.	Sully	38.
Plato	6.	Stewart	60.
Polygamy	4.	Tacitus	8.
Price	62,63.	Temple (Sir)	50.
Puffendorff	21.	Temple (clothier)	58,59.
Quesnay	42.	Townsend	63.
Raleigh	48,49.	Tucker	55.
Reinhard	29.	Turgot	45.
Religious Influence	2-4.	Vauban	38,39.
Rig-Veda	2.	Verri	13.
Roman Influence	7,8.	Voltaire	44.
Rousseau	45.	Wales	63.
Saavedra-Faxardo	12.	Wallace	57,58.
Saint Cyran	45.	Wolff	22.
Schloezer	28,29.	Xenophon	5.
Seckendorff	22.	Young	63.
Short	53.	Zend-Avesta	3.
Simpson	53.		
Smith	61,62.		
Solon	5.		