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Jean-Baptiste Say on the Effects of Production on Population

Jean-Baptiste Say (1767–1832) was the most prominent French economist of the early nineteenth century. He had a varied career in business, government (serving under Mirabeau in the revolutionary government and for several years on Napoleon's tribunate), journalism, and academia (culminating as professor of political economy at the Collège de France). Say's major work, the Traité d'économie politique, was published in 1803 and went through six editions during his lifetime. In translation, the Treatise became widely used as a textbook in political economy in Europe and the United States, often in conjunction only with the Wealth of Nations.

Economists have sometimes denigrated Say as merely a popularizer of Adam Smith—in contrast, for example, to Ricardo and Malthus. Schumpeter vigorously defends his originality: "[Say's] argument flows along with such easy limpidity that the reader hardly ever stops to think and hardly ever experiences a suspicion that there might be deeper things below this smooth surface. . . . [P]rofitable perusal is much more of a job than it looks."

Say is chiefly remembered today for what came to be known as Say's Law, usually rendered as "supply creates its own demand." By showing that increasing production tended comparably to increase purchasing power, he alleviated worries that the industrial revolution would bring about a "general glut" of commodities and manufactures. In the first section of the excerpt below, Say argues for an analogous proposition in the demographic sphere: "[T]he increase of population is always evidently co-extensive . . . with the means of subsistence." Underlying such an equation is of course a highly circumscribed view of possibilities for raising consumption by redefining "necessaries of life"—a view similar to that of the early Malthus (the expanded version of Malthus's Essay also appeared in 1803), though one that Malthus increasingly qualified in his economic writings. In the second section, Say sketches a picture of dualistic economic growth and emphasizes the relative immunity of city location and growth to official fiat.

Much of what makes Say's Treatise still worth reading lies in the asides that enrich and enliven the main themes: the ineffectuality of pronatalist incentives in the face of individual interest, illustrated by the efforts of the Romans and Louis XIV; the

distinction in the "quantum of human suffering" between high and low mortality regimes delivering the same population growth; the kernel of a life-cycle model of human capital; good government identified with "less frequent interference of public authority"; the diseconomies of scale in overgrown cities manifested in "an aggregate of little inconveniences."

The English translation of the Treatise, by Charles-Robert Prinsep, is of the 4th French edition (1821). In the words of the American editor, Prinsep's version "is executed with spirit, elegance, and general fidelity, and is a performance, in every respect, worthy of the original." Book II, Chapter XI, "Of the mode in which the quantity of the product affects population," is reproduced in full below, using the text of the 1821 London edition. Prinsep's own footnotes, often taking gratuitous issue with Say and availing himself of the last word, are omitted.

Sect. I. Of population, as connected with political economy

Having, in Book I., investigated the production of the articles necessary to the satisfaction of human wants, and, in the present Book, traced their distribution among the different members of the community, let us now further extend our observations to the influence those products exercise upon the number of individuals, of which the community is composed; that is to say, upon population.

In her treatment of all organic bodies, nature seems to despise the individual, and afford protection only to the species. Natural history presents very curious examples of her extraordinary care to perpetuate the species; but the most powerful means she adopts for that purpose is, the multiplication of germs in such vast profusion, that, notwithstanding the immense variety of accidents occurring to prevent their early developement, or destroy them in progress to maturity, there are always left more than sufficient to perpetuate the species. Did not accident, destruction, or failure of the means of developement check the multiplication of organic existence, there is no animal or plant, that might not cover the face of the globe in a very few years.

This faculty of infinite increase is common to man, with all other organic bodies; and, although his superior intelligence continually enlarges his own means of existence, he must sooner or later arrive at the ultimum.

Animal existence depends on the gratification of one sole and immediate want, that of food and sustenance; but man is enabled, by the faculty of communication with his species, to barter one product for another, and to regard the value, rather than the nature, of a product. The producer and owner of a piece of furniture of 100 *fr.* value may consider himself as

possessing as much human food, as may be procurable for that price. And, with respect to the relative price of products, it is in all cases determined by the intensity of the desire, the degree of utility in each product for the time being. We may safely take it for granted, that mankind in general will not barter an object of more, for one of less urgent necessity. In a season of agricultural scarcity, a larger quantity of furniture will be given for a smaller quantity of human aliment; but it is invariably true, that, whenever barter takes place, the object given on one side is worth that given on the other, and that the one is procurable for the other.*

Trade and barter, as we have seen above, adapt the products to the general nature of the demand. The objects, whether of food, of raiment, or of habitation, for which the strongest desire is felt, are of course the most in request: and the wants of each family, or individual, are more or less fully satisfied, in proportion to the ability to purchase these objects; which ability depends upon the productive means and exertion of each respectively; in plain terms, upon the revenue of each respectively. Thus, in the end, if we sift this matter to the bottom, we shall find, that families, and nations, which are but aggregations of families, subsist wholly on their own products; and that the amount of product in each case necessarily limits the number of those, who can subsist upon it.

Such animals as are incapable of providing for future exigencies, after they are engendered, if they do not fall a prey to man, or some of their fellow brutes, perish the moment they experience an imperative want, which they have not the means of gratifying. But man has so many future wants to provide for, that he could not answer the end of his creation, without a certain degree of providence and forethought: and this provident turn can alone preserve the human species from part of the evils it would necessarily endure, if its numbers were to be perpetually reduced by the process of destructive violence.[†]

Yet, notwithstanding the forethought ascribed to man, and the re-

to others.

^{*} Although all products are necessary to the social existence of man, the necessity of food being of all others most urgent and unceasing, and of most frequent recurrence, objects of aliment are justly placed first in the catalogue of the means of human existence. They are not all, however, the produce of the national territorial surface; but are procurable by commerce as well as by internal agriculture; and many countries contain a greater number of inhabitants, than could subsist upon the produce of their land. Nay, the importation of another commodity may be equivalent to an importation of an article of food. The export of wines and brandies to the north of Europe is almost equivalent to an export of bread; for wine and brandy, in great measure, supply the place of beer and spirits distilled from grain, and thus allow the grain, which would otherwise be employed in the preparation of beer or spirits, to be reserved for that of bread.

[†] The practice of infanticide in China proves, that the local prejudices of custom and of religion there counteract the foresight, which tends to check the increase of population: and one cannot but deplore such prejudices; for the human misery resulting from the destruction is great, in proportion as its object is more fully developed, and more capable of sensation. For this reason it would be still more barbarous and irrational policy to multiply wars, and other means of human destruction, in order to increase the enjoyments of the survivors; because the destructive scourge would affect human beings in a state more perfect, more susceptible of feeling and suffering, and arrived at a period of life, when the mature display of his faculties renders man more valuable to himself and

straints imposed on him by reason, legislation, and social habits, the increase of population is always evidently co-extensive, and even something more than co-extensive, with the means of subsistence. It is a melancholy but an undoubted fact, that, even in the most thriving countries, part of the population annually dies of mere want. Not that all who perish from want absolutely die of hunger; though this calamity is of more frequent occurrence than is generally supposed.* I mean only, that they have not at command all the necessaries of life, and die for want of some part of those articles of necessity. A sick or disabled person may, perhaps, require nothing more than a little rest, or medical advice, together with, perhaps, some simple remedy to set him up again; but the requisite rest, or advice, or remedy, are denied, or not afforded. A child may require the attentions of the mother, but the mother perhaps may be taken away to labour, by the imperious calls of necessity; and the child perish, through accident, neglect. or disease. It is a fact well-established by the researches of all who have turned their attention to statistics, that, out of an equal number of children of wealthy and of indigent parents, at least twice as many of the latter die in infancy as of the former. In short, scanty or unwholesome diet, the insufficient change of linen, the want of warm and dry clothing, or of fuel, ruin the health, undermine the constitution, and sooner or later bring multitudes of human beings to an untimely end; and all, that perish in consequence of a want beyond their means to supply, may be said to die of want.

Thus, to man, particularly in a forward state of civilization, a variety of products, some of them in the class of what have been denominated immaterial products, are necessaries of existence; these are multiplied in a

It would appear from the returns given in a tract entitled, "Observations on the Condition of the Labouring Classes," by J. Barton, that the average of deaths, in seven distinct manufacturing districts of England, has been proportionate to the dearness, or, in other words, the scarcity of subsistence. I subjoin an extract from his statements:

Average price of wheat per qr. Years, s. d.													Deaths.							
1801		-	_	-	-	-	-	_	118	3	-	_	_	-			-	-	-	55,965
1804		-	-	-	-	-	-	-	60	1	-	-	-	-	-	-	-	-	-	44,794
1807		-	-	-	-	-	-	-	73	3	-	-	-	-	-	-	-	-	-	48,108
1810		-	-	-	-	-	-	-	106	2	-	-	-	-	-	-	-	-	-	54,864

From the same returns it appears, that the scarcity occasioned less mortality in the agricultural districts. The reason is manifest: the labourer is there more commonly paid in kind, and the high sale-price of the product enabled the farmer to give a high purchase-price for labour.

^{*} The *Hospice de Bicêtre*, near Paris, contains, on the average, five or six thousand poor. In the scarcity of the year 1795, the governors could not afford them food, either so good or so abundant as usual; and I am assured by the house-steward of the establishment, that at that period almost all the inmates died.

degree proportionate to the desire for them, respectively, because its intensity causes a proportionate elevation of their price: and it may be laid down as a general maxim, that the population of a state is always proportionate to the sum of its production in every kind.* This is a truth acknowledged by most writers on political economy, however various and discordant their opinions on most other points.†

It appears to me, however, that one very natural consequence, deducible from this maxim, has escaped their observation; which is, that nothing can permanently increase population, except the encouragement and advance of production; and that nothing can occasion its permanent diminution, but such circumstances as attack production in its sources.

The Romans were for ever making regulations to repair the loss of population, occasioned by their state of perpetual external warfare. Their censors preached up matrimony; their laws offered premiums and honors to plurality of children: but these measures were fruitless. There is no difficulty in getting children; the difficulty lies in maintaining them. They should have enlarged their internal production, instead of spreading devastation amongst their neighbours. All their boasted regulations did not prevent the effectual depopulation of Italy and Greece, even long before the inroads of the barbarous northern hordes.‡

The edict of Louis XIV. in favor of marriage, awarding pensions to those parents, who should have ten, and larger ones to those, who should have twelve children, was attended with no better success. The premiums, that monarch held out in a thousand ways to indolence and uselessness, were much more adverse, than such poor encouragements could be conducive, to the increase of population.

It is the fashion to assert, that the discovery of the New World has tended to depopulate Old Spain; whereas, her depopulation has resulted from the vicious institutions of her government, and the small

^{*} Not but that accidental causes may sometimes qualify these general rules. A country, where property is very unequally distributed, and where a few individuals consume produce enough for the maintenance of numbers, will doubtless subsist a smaller population, than a country of equal production, where wealth is more equally diffused. The very opulent are notoriously averse to the burthen of a family; and the very indigent are unable to rear one.

[†] Vide Stewart, On Political Economy, book i. c. 4. Quesnay, Encyclopèdie, art. Grains. Montesquieu, Esprit des Loix, liv. 18. c. 10. and liv. 23. c. 10. Buffon, ed. de Bernard, tom. iv. p. 266. Forbonnais, Principes et Observations, p. 39. 45. Hume, Essays, part 2. Ess. 2. Oeuvres de Poivre, p. 145, 146. Condillac, Le Commerce et le Gouvernement, part 1. c. 24, 25. Verri, Reflexions sur l'Economie Politique, c. 210. Mirabeau, Ami des Hommes, tom. i. p. 40. Raynal, Histoire de l'Etablissement, liv. 11. s. 23. Chastellux, De la Félicité Publique, tom. ii. p. 205. Necker, Administration des Finances de France, c. 9. and Notes sur l'Eloge de Colbert. Condorcet, Notes sur Voltaire, ed. de Kepl. tom. xlv. p. 60. Smith, Wealth of Nations, book i. c. 8. 11. Garnier, Abrégé Elémentaire, part. 1. c. 3. and Preface de sa Traduction de Smith. Canard, Principes d'Economie Politique, p. 133. Godwin, On Political Justice, book viii. c. 3. Clavière, De la France et des Etats Unis, ed. 2. p. 60. 315. Brown-Duignan, Essay on the Principles of National Economy, p. 97. Lond. 1776. Beccaria, Elementi di Economia Publica, par. prim. c. 2, 3. Gorani, Récherches sur la Science du Gouvernement, tom. ii. c. 7. Sismondi, Nouv. Prin. d'Econ. Pol. liv. vii. c. 1. et seq. Vide also, more especially, Malthus, Essay on Population, a work of considerable research; the sound and powerful arguments of which would put this matter beyond all dispute, if it indeed had been doubted. † Vide Livii Hist. lib. vi. Plutarchi Moralia, xxx. De defectu oraculorum. Strabonis, lib. vii.

amount of her internal product, in proportion to her territorial extent.* The most effectual encouragement to population is, the activity of industry, and the consequent multiplication of the national products. It abounds in all industrious districts; and, when a virgin soil happens to co-operate with the exertions of a community, whence idleness is altogether discarded, its rapid increase is truly astonishing. In the United States of America, population has been doubling in the course of twenty years.

For the same reasons, although temporary calamities may sweep off multitudes, yet, if they leave untainted the sources of reproduction, they are sure to prove more afflicting to humanity, than fatal to population. It soon trenches again upon the limit, assigned by the aggregate of annual production. Messance has given some very curious calculations, whereby it apears, that, after the ravages occasioned by the famous plague of Marseilles in 1720, marriages throughout Provence were more fruitful than before. The Abbé d'Expilly comes to the same conclusion. The same effect was observable in Prussia, after the plague of 1710. Although it had swept off a third of the population, the tables of Sussmilch⁺ show the number of births. which, before the plague, amounted annually to about 26,000, to have advanced in the year following, 1711, to no less than 32,000. It might have been supposed, that the number of marriages, after so terrible a mortality, would have been at least considerably reduced; on the contrary, it actually doubled; a strong indication of the tendency of population to keep always on a level with the national resources.

The loss of population is not the greatest calamity resulting from such temporary visitations; the first and greatest is, the misery they occasion to the human race. Great multitudes cannot be swept from the land of the living by pestilence, famine, or war, without the endurance of a vast deal of suffering and agony, by numbers of sentient beings; besides the pain, distress, and misery of the survivors; the destitution of widows, orphans, brothers, sisters, and parents. It is a subject of additional regret, if, among the rest, there happen to fall one or two of those superior and enlightened men, whose single talents and virtues have more effect upon the happiness and wealth of nations, than the groveling industry of a million of ordinary mortals.

Moreover, a great loss of human beings, arrived at maturity, is certainly a loss of so much acquired wealth or capital; for every grown person is an accumulated capital, representing all the advances expended during a course of many years, in training and making him what he is. A bantling a day old by no means replaces a man of twenty; and the well-known

^{*} *Ustariz* has remarked, that the most populous provinces of Spain are those, from which there has been the greatest emigration to America.

[†] Quoted by Malthus, in his Essay on Popul. vol. ii.

expression of the Prince de Condé, on the victorious field of Senef, was equally absurd and unfeeling.*

These destructive scourges of the human species, therefore, if not injurious to population, are at least an outrage on humanity; on which account alone, their authors are highly criminal.[†]

But, though such temporary calamities are more afflicting to humanity, than hurtful to the population of nations, far other is the effect of a vicious government, acting upon a bad system of political economy. This latter attacks the very principle of population, by drying up the sources of production; and, since the numbers of mankind, as before seen, always approach nearly to the utmost limits the annual revenue of the nation will admit of, if the government reduce that revenue by the pressure of intolerable taxation, forcing the subject to sacrifice part of his capital, and consequently diminishing the aggregate means of subsistence and reproduction possessed by the community, such a government not only imposes a preventive check on further procreation, but may be fairly said to commit downright murder; for nothing so effectually thins the effective ranks of mankind, as privation of the means of subsistence.

The evil effects of monastic establishments upon population have been severely and justly inveighed against; but the mode, in which they operate, has been misunderstood; it is the idleness, not the celibacy, of the monastic orders, that ought to be censured. They put their lands into cultivation, it is true, but where is the merit of that? Would the lands remain untilled, if the monastic system were abolished? So far from that evil resulting from the abolition, wherever these establishments have been converted into manufactories, of which the French revolution has offered many examples, equal agricultural produce has continued to be raised, and the produce of the manufacturing industry has been all clear gain; while the increased total product, thus created, has been followed by an increase of population also.

^{* &}quot;Une nuit de Paris reparera tout cela." It requires the care and expenditure of twenty successive years to replace the full-grown man, that a cannon-ball has destroyed in a moment. The destruction of the human race by war is far more extensive than is commonly imagined. The ravage of a cultivated district, the plunder of dwelling-houses, the demolition of establishments of industry, the consumption of capital, &c.&c. deprive numbers of the means of livelihood, and cause many more to perish, than are left on the field of battle.

[†] Upon this principle, no capital improvement of the medicinal or chirurgical art, like that of vaccination for instance, can permanently influence national population; yet its influence upon the lot of humanity may be very considerable; for it may operate powerfully to preserve beings already far advanced in age, in strength, and in knowledge; whom to replace, would cost fresh births and fresh advances; in other words, abundance of sacrifices, privations, and sufferings, both to the parents and the children. When population must be kept up by additional births, there is always more of the suffering incident to the entrance and the exit of human existence; for they are both of more frequent occurrence. Population may be kept up with half the number of births and deaths, if the average term of life be advanced from forty to fifty years. There will, indeed, be a greater waste of the germs of existence; but the condition of mankind must be measured by the quantum of human suffering, whereof mere germs are not susceptible. The waste of them is so immense, in the ordinary course of nature, that the small addition can be of no consequence. Were the vegetable creation endowed with sensation, the best thing that could happen to it would be, that the seeds of all the vegetables, now rooted up and destroyed, should be decomposed before the vegetative faculties were awakened.

From these premises, may likewise be drawn this further conclusion; that the inhabitants of a country are not more scantily supplied with the necessaries of life, because their number is on the increase; nor more plentifully, because it is on the decline. Their relative condition depends on the relative quantity of products they have at their disposal; and it is easy to conceive these products to be considerable, though the population be dense; and scanty, though the population be thinly spread. Famine was of more frequent occurrence in Europe during the middle ages, than it has been of late years, although Europe is evidently more thickly peopled at present. The product of England, during the reign of Queen Elizabeth, was not nearly so abundant as it is now, although her population was then less by half; and the population of Spain, reduced to but eight millions, enjoys not nearly so much affluence, as when it amounted to twenty-four.*

Some writers[†] have considered a dense population as an index of national prosperity; and, doubtless, it is a certain sign of enlarged national production. But general prosperity implies the general diffusion and abundance of all the necessaries, and some of the superfluities, of life amongst all classes of the population. Some parts of India and of China are oppressed with population and with misery also; but their condition would be nowise improved by thinning its numbers, at least if it were brought about by a diminution of the aggregate product. Instead of reducing the numbers of the population, it were far more desirable to augment the gross product; which may always be effected by superior individual activity, industry, and frugality, and the better administration, that is to say, the less frequent interference, of public authority.

But, it will naturally be asked, if the population of a country regularly keeps pace with its means of subsistence, what will become of it in years of scarcity and famine?

Hear what Stewart[‡] says on this subject: "There is a very great deception as to the difference between crops: a good year for one soil is a bad one for another." "It is far from being true," he continues, "that the same number of people consume always the same quantity of food. In years of plenty, every one is well fed;—food is not so frugally managed; a quantity of animals are fatted for use;—and people drink more largely, because all is cheap. A year of scarcity comes; the people are ill fed; and, when the lower classes come to divide with their children, the portions are brought to be very small;" instead of saving, they consume their previous hoard; and,

^{*} If population depends on the amount of product, the number of births is a very imperfect criterion, by which to measure it. When industry and produce are increasing, births are multiplied disproportionately to the existing population, so as to swell the estimate: on the contrary, in the declining state of national wealth, the actual population exceeds the average ratio to the births.

[†] Wallace, Condorcet, Godwin.

[‡] Sir James, of Coltness, book i. c. 17.

after all, it is unhappily too true, that part of that class must suffer and perish.

This calamity is most common in countries overflowing with population, like Hindu, stan or China, where there is little external or maritime commerce, and where the poorer classes have always been strictly limited to the mere necessaries of life. There, the produce of ordinary years is barely sufficient to allow this miserable pittance; consequently, the slightest failure of the crop leaves multitudes wholly destitute of common necessaries, to rot and perish by wholesale. All accounts agree in representing, that famines are, for this reason, very frequent and destructive in China and many parts of Hindu, stan.

Commerce in general, and maritime commerce in particular, facilitates the interchange of products, even with the most remote countries, and thus renders it practicable to import articles of subsistence, in return for several other kinds of produce; but too great a dependence on this resource, leaves the nation at the mercy of every natural or political occurrence, which may happen to intercept or derange the intercourse with foreign countries. This intercourse must then be preserved at all events, no matter whether by force or fraud; competition must be got rid of by every means, however unjustifiable; a separate province, or weak ally, perhaps, is obliged to purchase the national products, under restrictions equally galling, as the exaction of actual tribute; and a commercial monopoly enforced, even at the hazard of a war; all which evils make the state of the nation extremely precarious indeed.

The produce of England, in articles of human subsistence, had undoubtedly increased largely towards the end of the 18th century; but its produce in articles of apparel and household furniture had probably increased still more rapidly. The consequence has been, that immensity of production, which enables her to multiply her population beyond what the produce of her soil can support,* and to bear up under the pressure of public burthens, to which there is no parallel nor even approximation. But England has suffered severely, whenever foreign markets have been shut against her produce; and she has sometimes been obliged to resort to violent means to preserve her external intercourse. She would act wisely, perhaps, in discontinuing those encouragements, that impel fresh capital into the channels of manufacture and external commerce, and directing it rather towards that of agricultural industry. It is probable, that, in that case, several districts, which have not yet received the utmost cultivation of which they are susceptible, particularly many parts of Scotland and Ireland,

^{*} In a pamphlet entitled, *Considerations on British Agriculture*, published in 1814, by W. Jacob, a member of the Royal Society, and a well-informed writer upon agricultural topics, we are told, (p. 34.), that England ceased to be an exporter, and became an importer, of wheat, about the year 1800.

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would raise agricultural produce enough to purchase most part, if not the whole, of the surplus product of her manufactures and commerce beyond her present consumption.* Great Britain would thereby create for herself a domestic consumption, which is always the surest and the most advantageous. Her neighbours, no longer offended by the necessarily jealous and exclusive nature of her policy, would probably lay aside their hostile feelings, and become willing customers. But, after all, if her manufactured, should still be disproportioned to her agricultural, produce, what is there to prevent her from adopting a system of judicious colonization, and thus creating for herself fresh markets for the produce of her domestic industry in every part of the globe, whence she might derive, in return, a supply of food for her superfluous population?†

In this particular, the position of France appears to be precisely opposite to that of Great Britain. It would seem, that her agricultural product is equal to the maintenance of a much larger manufacturing and commercial population. The face of the country presents the picture of high and general cultivation; but the villages and country towns are, for the most part, surprisingly small, poor, ill-built, and ill-paved, the few shops scantily supplied, and the public-houses, neither neat nor comfortable. It is plain, the agricultural product must either be less than the appearance would indicate, or it must be consumed in a thriftless and unprofitable manner; probably both these causes are in operation.

In the first place, the production is far less than it might be; and this is chiefly owing to three causes:—1. the want of capital, particularly in enclosures, live-stock, and ameliorations‡: 2. the indolence of the cultivators, and the too general neglect of weeding, trimming the hedges, clearing the trees of moss, destroying insects, &c. &c. 3. the neglect of a proper alternation of crops, and of the most approved methods of cultivation.

In the second place, the consumption is unthrifty and unprofitable; for a great part of it is mere waste, and yields no human gratification whatever. To speak of one article alone, that is, of firing, which is an object of great value in districts, where coal and wood are scarce; the waste of it is

^{*} The writer last cited enters into long details to show, that the soil of the British Isles could be made to produce at least a third more than their present product, *ibid.* p. 115. *et seq.*

[†]By judicious colonization I mean, colonization formed on the principles of complete expatriation, of self-government without control of the mother-country, and of freedom of external relations; but with the enjoyment of protection only by the mother-country, while it should continue necessary. Why should not political bodies imitate in this particular the relation of parent and child? When arrived at the age of maturity, the personal independence of the child is both just and natural; the relation it engenders is, moreover, the most lasting and most beneficial to both parties. Great part of Africa might be peopled with European colonies formed on these principles. The world has yet room enough, and the cultivated land on the face of the globe is far inferior in extent to the fertile land remaining untilled. The Earl of Selkirk has thrown much light on this matter in his tract on *Emigration and the State of the Highlands*.

[‡] The want of capital prevents the employment of machinery for expediting the operations, like the thrashing machine in common use in England. This makes a larger supply of human agency requisite in agriculture; and the more mouths there are to be fed, the smaller will be the surplus produce, which alone is disposable.

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enormous in the huts of the peasantry, lighted as they often are by the door-way only, and admitting the rain down the chimney while the fire is burning. Unwholesome beverage or food, and the indulgence of the alehouse, are like injurious modes of consumption.

In fine, towns and villages would be more thickly spread, and would besides present an appearance of greater affluence, were the generality of the inhabitants more active and industrious, and actuated by the laudable emulation, tinctured perhaps with some little vanity, rather of possessing every object of real utility, and exhibiting in their domestic arrangements the utmost order and neatness, than of living in indolence upon the rent of a trifling patrimony, or the scanty salary of some useless public employ. The small proprietor with an income of 1 or 2000 fr. per annum, just sufficient to vegetate upon, might double or triple it perhaps by adding the revenue derivable from personal industry; and even those, engaged in useful occupations, do not push them to the full extent of their activity and intelligence. Moreover, the spirit of enquiry and improvement has probably been disheartened by the example of frequent ill success; although the failure has commonly been occasioned by the want of judgment, perseverance, and frugality.

National population is uniformly proportionate to the quantum of national production; but it may vary locally within the limits of each state, according to the favorable, or unfavorable operation of local circumstances. A particular district will be rich, because its soil is fertile, its inhabitants industrious, and possessed of capital accumulated by their frugality; in like manner as a family will surpass its neighbours in wealth, because of its superior intelligence and activity. The boundaries and political constitutions of states affect population only, inasmuch as they affect the national production. The influence of religion and national habits upon population is precisely analogous. All travellers agree, that protestant, are both richer and more populous than catholic countries; and the reason is, because the habits of the former are more conducive to production.

Sect. II. Of the influence of the quality of a national product upon the local distribution of the population

For the earth to be cultivated, it is necessary that population should be spread over its surface; for industry and commerce to flourish, it is desirable to bring it together in those spots, where the arts may be exercised with the most advantage; that is to say, where there can be the greatest subdivision of labour. The dyer naturally establishes himself near the clothier; the druggist near the dyer; the agent, or owner, of a vessel employed in the transport of

drugs will approximate in locality to the druggist; and so of other producers in general.

At the same time, all such as live without labour on the interest of capital, or the rent of landed property, are attracted to the towns, where they find brought to a focus every luxury to feed their appetites, as well as a choice of society, and a variety of pleasure and amusement. The charms of a town life attract foreign visitors, and all such as live by their labour, but are free to exercise it wherever they like. Thus, towns become the abode of literary men and artisans, and likewise the seat of government, of courts of justice, and most other public establishments; and their population is enlarged by the addition of all the persons attached to such establishments, and all who are accidentally brought thither by business.

Not but what there is always a number of country residents, that are employed in manufacturing industry, exclusive of such as make it their abode in preference. Local convenience, running water, the contiguity of a forest or a mine, will draw a good deal of machinery, and a number of labourers in manufacture, out of the precincts of towns. There are, likewise, some kinds of work, which must be performed in the neighbourhood of the consumers; that of the taylor, the shoemaker, or the farrier; but these are trifling compared with the manufacturing industry of all kinds executed in towns.

Writers on political economy have calculated, that a thriving country is capable of supporting in its towns, a population equal to that of the country. Some examples lead to an opinion, that it could support a still greater proportion, were its industry directed with greater skill, and its agriculture conducted with more intelligence and less waste, even supposing its soil to be of very moderate fertility.* Thus much at least is certain, that, when the towns raise products for foreign consumption, they are then enabled to draw from abroad provisions in return, and may sustain a population much larger in proportion to that of the country. Of this we have instances in the numerous petty states, whose territory alone is barely sufficient to afford subsistence to one of the suburbs of their capital.

^{*} There is good reason to believe, that the total population of England is more than the double of that employed in her internal agriculture. From the returns laid before parliament in 1811, it appears there were in Great Britain, inclusive of Wales and Scotland, 895,998 families employed in agriculture; and that the total number of families amounted to 2,544,215, which would give but a third of the population to the purposes of agriculture. According to Arthur Young, the country population of France, within her old limits, was - - - - 20,521,538

And that of the cities and towns, - - - - 5,709,270

Making a total of - - - - 26,230,808

Supposing him to be correct, France, within her old boundary, could maintain, on this principle, a population of 41 millions, supposing her merely to double her agricultural population; and of 60 millions, supposing her industry were equally active with that of Great Britain.

It is the general remark of travellers, that the traffic on the great roads of France is much less, than might be expected, in a country possessing so many natural advantages. This may be attributed chiefly to the small number and size of her towns; for it is the communication from town to town that peoples the great roads; that of the rural population being principally from one part of the village or farm to another.

Again, the cultivation of pasture-land requiring much less human labour than that of arable, it follows, that, in grazing countries, a greater proportion of the inhabitants can apply themselves to the arts of industry; which are therefore more attended to in pasture than in corn countries. Witness Flanders, Holland, and Normandy that was.

From the period of the irruption of the barbarians into the Roman empire, down to the 17th century, that is to say, to a date almost within living memory, the towns made but little figure in the larger states of Europe. That portion of the population, which is thought to live upon the cultivators of the land, was not then, as now, composed principally of merchants and manufacturers, but consisted of a nobility, surrounded by numerous retainers, of churchmen, and other idlers, the tenants of the chateau, the abbey, or the convent, with their several dependencies; very few of them living within the towns. The products of manufacture and commerce were very limited indeed; the manufacturers were the poor cottagers, and the merchants mere pedlars; a few rude implements of husbandry, and some very clumsy utensils and articles of furniture, answered all the purposes of cultivation and ordinary life. The fairs held three or four times in the year furnished commodities of a superior quality, which we should now look upon with contempt; and what rare household articles, stuffs, or jewels, of price, were from time to time imported from the commercial cities of Italy, or from the Greeks of Constantinople, were regarded as objects of uncommon luxury and magnificence, far too costly for any but the richest princes and nobles.

In this state of things, the towns of course made but a poor figure. Whatever magnificence they may possess in our time is of very modern date. In all the towns of France together, it would be impossible to point out a single handsome range of buildings, or fine street, of two hundred years' antiquity. There is nothing of anterior date, with the exception of a few gothic churches, but clumsy tenements huddled together in dirty and crooked streets, utterly impassable to the swarm of carriages, cattle, and foot-passengers, that indicates the present population and opulence.

No country can yield the utmost agricultural produce it is equal to, until every part of its surface be studded with towns and cities. Few manufactures could arrive at perfection, without the conveniences they afford; and, without manufactures, what is there to give in exchange for agricultural products? A district, whose agricultural products can find no market, feeds not half the number of inhabitants it is capable of supporting; and the condition, even of those it does support, is rude enough, and destitute both of comfort and refinement; they are in the lowest stage of civilization. But, if an industrious colony comes to establish itself in the district, and gradually forms a town, whose inhabitants increase till they equal the numbers of the original cultivators, the town will find subsistence

on the agricultural product of the district, and the cultivators be enriched by the product of the industry of the town.

Moreover, towns offer indirect channels for the export of the agricultural values of the district to a distant market. The raw products of agriculture are not easy of transport, because the expense soon swallows up the total price of the commodity transported. Manufactured produce has greatly the advantage in this respect; for industry will frequently attach very considerable value to a substance of little bulk and weight. By the means of manufacture, the raw products of national agriculture are converted into manufactured goods of much more condensed value, which will defray the charge of a more distant transport, and bring a return of produce adapted to the wants of the exporting country.

There are many of the provinces of France, that are miserable enough at present, yet want nothing but towns to bring them into high cultivation. Their situation would, indeed, be hopeless, were we to adopt the system of that class of economists, which recommends the purchase of manufactures from foreign countries, with the raw produce of domestic agriculture.

However, if towns owe their origin and increase to the concentration of a variety of manufactures, great and small, manufactures, again, are to be set in activity by nothing but productive capital; and productive capital is only to be accumulated by frugality of consumption. Wherefore, it is not enough to trace the plan of a town, and give it a name; before it can have real existence, it must be gradually supplied with industrious hands, mechanical skill, implements of trade, raw materials, and the necessary subsistence of those engaged in industry, until the completion and sale of their products. Otherwise, instead of founding a city, a mere scaffolding is run up, which must soon fall to the ground, because it rests upon no solid foundation. This was the case with regard to Ecatherinoslaw, in the Crimea; and was, indeed, foreseen by the emperor Joseph II., who assisted at the ceremony of its foundation, and laid the second stone in due form: 'The empress of Russia and myself,' said he to his suite, 'have completed a great work in a single day: she has laid the first stone of a city, and I have laid the finishing one.'

Nor will capital alone suffice to set in motion the mass of industry and the productive energy necessary to the formation and aggrandizement of a city, unless it present also the advantages of locality and of beneficent public institutions. The local position of Washington, it should seem, is adverse to its progress in size and opulence; for it has been outstripped by most of the other cities of the Union; whereas, Palmyra, in ancient times, grew both wealthy and populous, though in the midst of a sandy desert, solely because it had become the *entrepôt* of commerce between Europe and eastern Asia. The same advantage gave importance and splendor to Alexandria, and, at a still more remote period, to Egyptian Thebes. The mere will of a despot

could never have made it the city of a hundred gates, and of the magnitude and populousness recorded by Herodotus. Its grandeur must have been owing to its vicinity to the Red Sea and the channel of the Nile, and to its central position between India and Europe.

If a city cannot be raised, neither does it seem, that its further aggrandizement can be arrested by the mere fiat of the monarch. Paris continued to increase, in defiance of abundance of regulations issued by the government of the day to limit its extension. The only effectual barrier is that opposed by natural causes, which it would be very difficult to define with precision, for it consists rather of an aggregate of little inconveniences, than of any grand or positive obstruction. In overgrown cities, the municipal administration is never well attended to; a vast deal of valuable time is lost in going from one quarter to another; the crossing and jostling is immense in the central parts; and the narrow streets and passages, having been calculated for a much smaller population, are unequal to the vast increase of horses, carriages, passengers, and traffic of all sorts. This evil is felt most seriously at Paris, and accidents are growing more frequent every day; yet new streets are now building on the same defective plan, with a certain prospect of a like inconvenience in a very few years hence.