



### **Re-reading *The Geographical Study of Population Groups* by M. Arousseau**

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The pages that follow are taken from an article published in 1923 in the *Geographical Review*, the official journal of the American Geographical Association. The author, Marcel Arousseau, was born in Australia in 1891 and was a geographer and geologist. He wrote his most important geographical papers on population problems and settlements between 1920 and 1924, when he worked at the Geophysical Laboratory of the Carnegie Institution in Washington DC. and for the American Geographical Society of New York.

This paper is highly interesting because, although the case for population geography would be made later by Glenn Trewartha at the Association of American Geographers annual meeting in 1953, in Arousseau's pages we can easily find almost all of the main key points that would become the focus of research and debate in the field of population geography.

In particular, Arousseau appears to grasp the special features and critical issues of this branch of geographical discipline, which are clearly detectable even today and which give geography of population a very marked characteristic of interdisciplinarity.

He points out that, by analysing the global distribution of human groups, geographers have not only been able to successfully use the tools

of other sciences, but have also opened up multiple perspectives of analysis, new data representation methodologies, and new interpretive models.

The author shows a lot of assurance and confidence in the methods and heuristic tools of population studies, although admitting that much research still needs to be carried out and explored. According to Rousseau's thought, studies on population groups should find their own space within geography, outlined by what the author calls "Philosophy of Population", which will allow geographers to decipher the spatial complexity and localize and understand population groups on earth.

An element of modernity in the work by Arousseau is recognizing that the study of population consists in the analysis of the geographical distribution of population groups, the ways and aspects that characterise their occupation of the Earth's surface, and how this analysis should also become the instrument for the knowledge of the territory. Even today, population geography is indeed the discipline that tries to account for the diversity of human groups and their evolutionary dynamics, analysing the dialectic between the environmental context of demographic changes and the social framework.

Another element of modernity is the linkage underlined between population growth and the resources of a region. The fact that there is a relationship between population growth and increased pressure on resources, accompanied by the degradation of the natural environment, has been frequently discussed in different

perspectives since very ancient times, such as in some tablets of one Babylonian Epic poem written in 600 B.C., in the Homeric *Cypria* (776-580 B.C), or in *De Anima* by Tertullian, a Latin-writing Christian author of the Severan age.

The author appears to know the literature on population very well, from Malthus onwards. In particular, he refers to the problem related to future prospects for humanity, around which, in the twenties, the discussion had become richer and more dynamic, polarizing the historical and philosophical tradition and the studies into the two extreme positions represented by the “Malthusians” and those who trusted the powerful reproductive forces of population and nature.

Arousseau outlines the framework of the debate among his contemporaries around the “*Population question*” aroused by George Chisholm in *The Geographical Teacher* magazine in 1917, analysing the markedly Malthusian position of US scholars Warren Thompson, Raymond Pearl, and Lowell Reed. The latter is opposed to the pro-natalist French vision of Albert Demangeon and Robert Lascaux and the thought of the German author Friedrich Naumann in his famous *Central Europe*, published in 1917.

The debate described by Arousseau about population growth and the impact this could have on food resources or the opportunity for the nations to increase the number of people would continue, with supporters on both sides among scholars and researchers, to then flare up in the 1960s. At that time, in her book *Silent Spring*, Rachel Carson paved the way for the spread of ecological consciousness among common people and fed what would become the environmental movement.

And, it would be fifty years later, with William Vogt, Henry Fairfield Osborn Jr., and Paul Ehrlich, that the rise of the total number of living humans would enter into the debate on the Earth’s future and alert people about the importance of environmental issues, creating the linkage among population growth, carrying capacity, and the concept of sustainability, albeit unexpressed.

Arousseau, however, is well-aware of the biological challenges posed by rising population and, in the last words of the paper’s pages, he clearly expresses his concern about the possibility that the Earth’s resources are not sufficient to support the population growth in the years to come. He expressly recognizes that it will be the task of geography to give an answer to the questions that this problem raises.

## References

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## The Geographical Study of Population Groups<sup>1</sup>

M. Aourousseau

### How Population Is Studied

The literature of population is relatively small. To realize this, one has only to consult the subject index of a large library. The important works on the subject start with Benjamin Franklin and Malthus and run down through the nineteenth century fairly regularly, ending with Carr-Saunders in 1922. The uniform character of the investigations is very striking. They nearly all deal with the matter from the standpoints of statistics, economics, or eugenics. Geography is not represented.

A vast knowledge of the distribution of man on the earth has accumulated during the statistical period. His preferred habitats are thoroughly known; his rate of growth in them is known; and the general nature and trend of his movements from place to place are known. The numerical study of man is on a sound basis and has been exhaustively investigated by the mathematicians. Nations can hence compare themselves with other nations in a rigorously quantitative manner and are now psychologically dominated either by the fear of numerical inferiority or by the pride and strength of numerical advantage.

Political economy has analyzed the growth of mankind and is able to show that subtle relations exist between occupation and rate of increase, between the industries of peoples and the fecundity of certain classes of human beings, between national revenue and prosperity as measured by numbers; and has shown that national wealth and power are in a great measure functions of the resources of the national or imperial land bases. "Be ye fruitful and multiply: seize the good places of the earth and use them!" This advice has been followed with an intensity that may well be regarded with anxiety.

The eugenists have examined the conditions of life and the quality of the human harvest. They are dissatisfied. They see the squalor and poverty of the towns and cities and the deterioration of mind and physique among slum dwellers. They note that along with increasing wealth and progress is a parallel development of misery. Eugenic study has produced two very active campaigning minorities: the advocates of preventive checks of population growth and the town planners. The latter need only a knowledge of the existence of the field in order to become geographers. Thus far has the study of population brought us. We have a majority faith in the desirability of numbers and a minority apprehension that quantity is lowering quality.

Among the qualified prophets there is no unanimity, but they incline towards a faith in numbers.

### What has Geography done?

If the geographer be asked for succinct and useful information on population he is able to point to endless tables of figures taken from the statistician. He is able to produce innumerable maps of the world, of countries, regions, and districts, showing the density of population depicted according to arbitrary administrative subdivisions. He can point to the fact that more people live on the coal fields of Westphalia, or the alluvium of the Ganges, than on the veld. The facts are interesting, and the reasons rather obvious. He can produce curves showing the growth of all the leading cities of the world and can tell you just why Detroit has grown, if you don't happen to know. He can tell you anything about numbers, provided you ask him to deal with them under the subdivisions of cities, towns, and "remainder." The maps, except those of Sten De Geer (admirable, expensive, and difficult to file), are not geographic maps. Inevitably their information as a whole or in detail is generalized and lacks precision. For the merchant the geographer has handy information on the habits and occupations of all the peoples of the globe and can point to markets.

The coherent and obvious population groups have been studied in their relation to the configuration of the land, and a large amount of

<sup>1</sup> *Geographical Review*, 13, 2, 1923, pp. 266-282.

information exists about the positions of cities, the sites of towns and villages, and the locations of dwellings. This information has not yet been treated exhaustively and has yielded few principles. It is useful and indicates a lead to one of the objectives of science-prediction. It is known that Paris has grown because it is in the right place; that the villages of Macedonia are often definitely related to fault scarps; that the Mormon communities of Utah have wisely placed themselves on the fans at the canyon mouths. Numerous towns have been studied as objects in the landscape, with fruitful results. The town is seen to be composed of definable units, and we are coming to understand their interdependence and to control their growth. These studies, however, are in their infancy.

During the past twenty years the regional movement has asserted itself as a definite policy in geography and bids fair to spread to other sciences such as climatology, biology, and even sociology. The subdivision of the earth into regions is the beginning of a reliable stock-taking of world resources. The configuration of the globe determines its occupation by mankind. The climatic limitations of the region will eventually determine who shall be the occupant. The climatic limitations also control the natural fecundity of the region in plant and animal products. The regional view will show us the deficiencies and surpluses of the various parts of the earth and will enable us to understand our final interdependence. The capacity of the region will set a limit to its use.

The status of the region is still in debate. Some deny the reality of its existence. Others hold that delimitation cannot be placed on workable principles. Still others dispute the criteria of unity which have been selected. Nevertheless, the regional movement is steadily gaining adherents from the soundest ranks of geography, and the subdivision of the globe into world regions, climatic regions, physiographic provinces, and natural districts may, I think, be confidently expected in the near future. It can only be done satisfactorily by a survey method, and the existing regional maps are no more than the results of reconnaissance and reasonable speculation. The results for geography, then, are slight, the ground being barely broken. Little definite information is in existence, and no

useful contribution to the population problem can be made at present. The line of attack, however, is discernible. I am aware of only one attempt at a direct contribution to the problem by a professed geographer.

### **Geographical confrontation**

We know where the people of the earth are. We know in some measure why they are there. We know what enables them to live there. Can we say how many will be able to maintain themselves in a given region? And under what conditions? These, it seems to me, are the geographical objectives in the investigation of the population problem. But how is geography to confront the problem, and with what equipment is it armed? The investigator needs a philosophy of population. Is he to be a champion of uncontrolled increase and ruthless exploitation of the earth, or of controlled increase, if that be possible, and a wise use of resources? His opinion will be based upon the conclusions of the economic investigators, modified by his own geographical knowledge. The conclusions of the economists, however, are strongly tinged with nationalism or colored by national environment.

In the United States we find Thompson aligned unequivocally with Malthus and regarding France as the well-advised and fortunate follower of a sound doctrine. His position, based on a careful interpretation of Malthus, from first-hand and intimate knowledge, is a very firm one. He is strongly supported by East, whose argument is the result of an extensive inquiry into the agricultural resources of the country. East has estimated a maximum capacity for the United States, under conditions like those of the present, and his results are in striking accord with those of Pearl and others, who arrive at a principle of population maxima from the mathematical interpretation of increase regarded as a growth phenomenon.

In France economic propaganda are vigorous at the present time, the slogans being "avoir beaucoup d'hommes; faire rendre le maximum à la terre; fabriquer à force de machines; étendre

le commerce de mer; associer les colonies à l'effort national." These measures are advocated by Demangeon, and an elaborate argument for the increase of French population by increasing French production has been put forward by Lascaux. He shows that production and population are undoubtedly linked intimately and concludes that France must have more people and can only do so by feverish efforts at production. The French economists are almost unanimously anti-Malthusian, their condemnation of the pioneer resting upon criticism of the arithmetical ratio. The leaders of France demand a great population, but the French people pay little heed to them. The demand seems to spring from a fear of the wealthy and populous nations. And yet France is a happy and prosperous country; and, moreover, the land of France is full. Tillage has expanded until there is little ground left to till, and the land seems to be occupied by a maximum of people. I have only seen this view expressed in print once and that in a volume on birth control which contains several very illuminating essays.

The English interpretation, as expressed in an important work by Carr-Saunders, aligns itself in some measure with that of Pearl. It implies that these things are operating according to some law and that they will, in a way, look after themselves. Carr-Saunders looks to the development of an optimum density of population, changes in numbers coming about in response to economic requirements. Increase of population brings industrial returns up to their optimum, if they are below it, and vice versa. This may well be true in an isolated and closed system and in its broadest sense may be true as a whole, but one may query whether or not the condition of optimum returns is desirable or whether the adjustment from conditions that have gone past the optimum is a comfortable

process. A different viewpoint is exhibited by Darwin, who evaluates civilization according to the possession of wealth, stock, and tradition, recalling Fleure's three aims of humanity, life, new life, and good life. Darwin makes a reasonable deduction to show that civilization depends ultimately on wealth and concludes that "any increase in our numbers must, therefore, now react injuriously on our civilization, both directly by lowering average natural endowments and indirectly by causing a diminution of average wealth".

Those who have watched the world filling up, who have seen the colossal efforts that were required to feed England during the war, who have considered the delicate balance of world economics and realize how easily that balance is upset, who foresee the growth of the exporting countries and the probable diminution of their ratio of export, who have studied the exodus from countries endeavoring to arrive at their optimum density of population after having exceeded it, will most likely agree with Mackinder, that the oceans of the world are now a closed sea, and will incline towards a Malthusian view of the population problem. Dr. Fenneman said before this Association in New York in 1921 that "the world is filling up, and the time is coming for Africa to do its share in providing food." World population is increasing at a very rapid rate, and the most conservative estimates of future populations render the prospect of feeding them a very formidable task. No matter what laws the increase will obey, geography confronts the questions "Where are all these people going to live? How are they going to live? and What resources can be made available for their sustenance?"