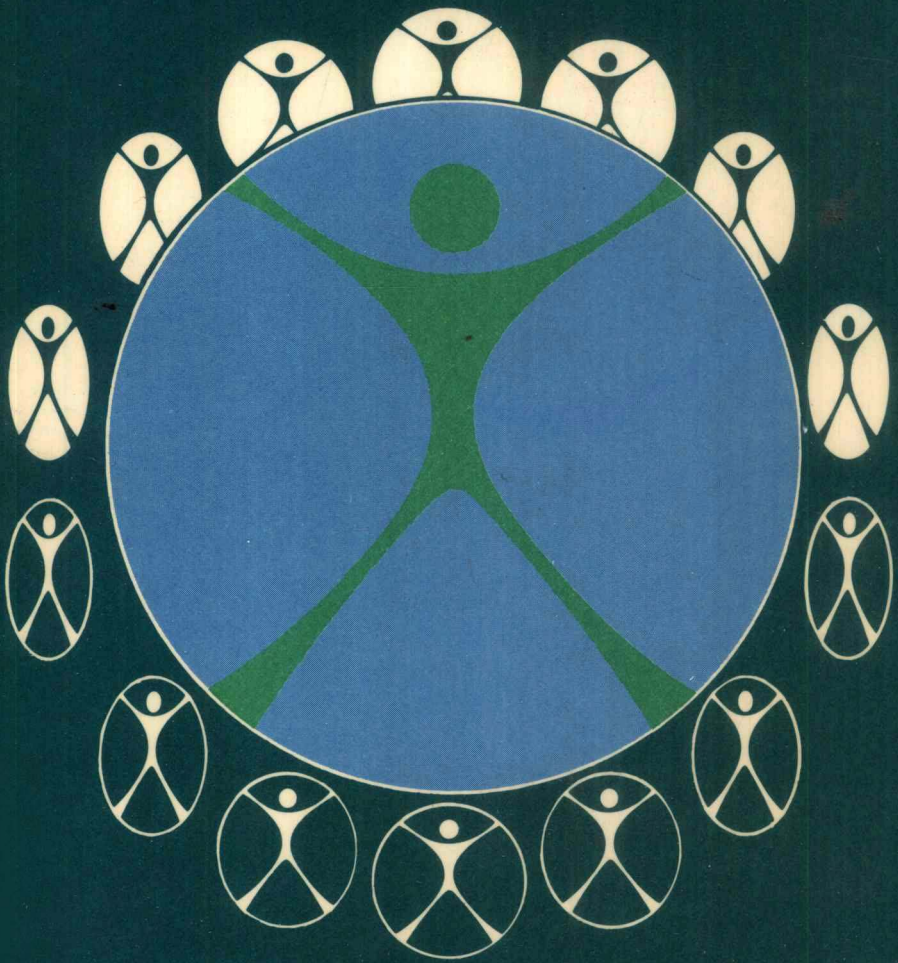
GEOGRAPHY & POPULATION

Approaches and Applications



Edited by **John I Clarke**, Professor of Geography, University of Durham and Chairman of the International Geographical Union Commission on Population Geography

Pergamon

Geography and Population

Approaches and Applications

edited by

JOHN I. CLARKE

Professor and Head of the Department of Geography
University of Durham, U.K. and Chairman of the International
Geographical Union Commission on Population Geography

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Introduction

The object of this edited volume is to reveal the variety of approaches and applications to population geography over time and space. Written by numerous authors from many parts of the world, it reveals how this field of geography has evolved and diversified particularly since mid-century. A variety of ecological, landscape, positivist, quantitative, behavioural and applied approaches can be discerned, with differing levels of demographic content. Moreover, so can a variety of national approaches, as population geographers are greatly influenced by their physical, cultural and political environments as well as by their educational systems. In some countries geographers are mostly trained to be teachers, and the process is very cyclical; in others, the training is much less canalized and more relevant to the problems of the country. Generally, population geographers focus upon the specific population processes, patterns and problems which surround them, and their approach to the subject is influenced by them. A population geographer working in Peru or Nepal is much more likely to be concerned with mountain population pressures and their ecological impact than in either demographic accounting models or intra-urban mobility, which are more common research interests in advanced industrialized countries, where the demographic conditions are so different and the data availability so much greater. In short, the context of studies of population geography greatly affects the nature of those studies, and that is why a thoroughly international team of authors has been asked to contribute to this volume, 27 authors from 15 different countries.

The multinational authorship has been assembled through the activities of the International Geographical Union's (I.G.U.) Commission on Population Geography, one of the 14 commissions of the I.G.U. during its 1980–84 session. Since 1956 there has always been an I.G.U. commission concerned with aspects of population, though its name and membership have varied over the years (Kosiński, 1980), initially being concerned with the World Population Map (1956–64), then with the Geography and Cartography of World Population (1964–68) and subsequently with Population Geography (1968–). Gradually, the activities of the Commission have increased and the variety of themes has multiplied, but always the main aim has been to stimulate international collaboration and cooperation in the study of

population geography. During the current session the major theme has been population redistribution and the nine members of the Commission have organized symposia in São Paulo/Rio de Janeiro (Brazil), Khartoum (Sudan), Cagliari, Sardinia (Italy), Dunedin (New Zealand), Kathmandu (Nepal), Winnipeg (Canada) and Rouen (France) on diverse topics:

—the impact of development projects upon population redistribution in Africa (Khartoum)
—women, work and production space (São Paulo/Rio)
—the socio-economic policy of the state and its population (São Paulo/Rio)
—general aspects of population geography (São Paulo/Rio)
—women's role in population redistribution (Cagliari)
—mobility, identity and policy in the Island Pacific (Dunedin)
—mountain population pressures (Kathmandu)
—the problems and consequences of refugee migrations in the developing world (Winnipeg)
—migration and the city (Rouen)

Many of these meetings result in books and special numbers of journals published in different countries, and in addition the Commission is preparing an international volume on 'Census Mapping Surveys'. In these ways, the I.G.U. Commission on Population Geography is attempting to foster research and international involvement in population geography. As Chairman, I would like to pay tribute to its members—Murray Chapman (U.S.A.), Maudood Elahi (Bangladesh), Maria-Luisa Gentileschi (Italy), Mustafa Khogali (Sudan), Leszek Kosiński (Canada), Prithvish Nag (India), Rosa Ester Rossini (Brazil) and Egon Weber (G.D.R.)—for all their help, enthusiasm and advice.

The scope of a volume such as this could be extended. More theoretical and thematic aspects might be included, and more country case studies of the situation of population geography. In fact, late withdrawals of authors almost inevitably affect its character, and certainly their chapters would have accentuated the diversity of the position of population geography vis-à-vis geography and population studies in general. But the present series of cases reveals sufficient diversity, and I am grateful to all authors for their contributions to this volume. In addition, I owe much to Joan Dresser for dealing with typescripts from so many countries.

Durham, May, 1983 JOHN I. CLARKE

Reference

Kosiński, L.A. (1980) Population geography and the International Geographical Union, *Population Geography*, **2**, 1–20.

Contents

1

Geography, Demography and Population

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If we accept the early works of George (1951) and Trewartha (1953) some thirty years ago as initial codifications of population geography, there is little doubt that since then it has flourished and diversified, becoming a multi-faceted field of study, and accounting for more than one in ten of all published geographical papers. Of course, from the late nineteenth century a keen interest in population phenomena had been shown by many geographers of the ecological school, both determinists and possibilists, from Ratzel and Hettner to Vidal de la Blache and Sorre. But it is during the second half of the twentieth century that population geography has emerged and expanded. It was variously examined and structured in a number of basic texts during the period 1951–70 (George, 1951 and 1959; Clarke, 1965; Zelinsky, 1966; Beaujeu-Garnier, 1956–58 and 1966; Kosiński, 1967; Wilson, 1968; Trewartha, 1969; Griffin, 1970; Demko, Rose and Schnell, 1970) since when the field has diffused internationally and diversified thematically, so that today there are a large number of practitioners around the world utilizing different approaches, methods and applications.

An indication of the current diversity in approaches to population geography is revealed by the contents of four recently published textbooks. On the one hand, the Frenchman Noin (1979) and the Indians Chandna and Sidhu (1980) devote extensive coverage to spatial distribution of population, ethnic, demographic and socio-economic diversity of populations, spatial mobility and the relationships between population and resources, but give relatively little attention to fertility, mortality and population growth; on the other, the British authors Woods (1979) and Jones (1981) devote most of their texts to these last three themes, along with a consideration of population policies (in the text of Jones) and of models and population forecasting (in the text of Woods), but say hardly anything about the distribution and diversity

of populations or their relationships to environment or resources. Woods and Jones have suggested that texts like those of Noin and Chandna and Sidhu exemplify a 'traditional' pattern-orientation in population geography, while theirs reflect a new process-orientation, more in line with current trends in geography as a whole. However, while the two pairs of texts have a useful complementarity, none incorporates comprehensively the full diversity of work undertaken or courses studied under the name of population geography around the world. As evidence, we may cite the recent contributions of the IGU Commission on Population Geography, which have been particularly policy-orientated and culture-orientated (Webb, Naukkarinen and Kosiński, 1981; *Population Geography*, 1981; Clarke and Kosiński, 1982; Clarke, Khogali and Kosiński, forthcoming), reflecting the immense variety of peoples, cultures and countries as well as of approaches, attitudes and policies to population phenomena.

This brief chapter will look at some of the many factors which have influenced the emergence, expansion and diversification of population geography. They may be grouped, somewhat arbitrarily, into four main categories: (i) population changes, both natural and migratory; (ii) changes in political structures and policies; (iii) the growing availability of data and the facility to handle them; and (iv) the academic evolution of geography, demography and population studies.

Population changes

Certainly the growth of population geography has coincided with the growing public awareness of the rapid increase in world population growth, brought about particularly by mortality decline preceding and greatly exceeding fertility decline in a large number of less developed countries (L.D.C.s). As the latter comprise the great majority of mankind, and the population growth of more developed countries (M.D.C.s) has dwindled fast, the absolute increase of population has been largely localized in the L.D.C.s, who are least able to cope. Their population growth came to be seen as a problem, especially for economic development, though curiously, in many parts of the world population growth is often seen as a problem, whatever the rate; and rates of population growth among countries have never been so diverse as since mid-century. So geographers came to realize that it was not enough to know about population numbers and their increase, but one should know about the process of demographic transition from high to low vital rates as well as the changes in population characteristics. The contrasts in age structure alone between M.D.C.s and L.D.C.s demonstrated the need for greater demographic understanding. Geographers interested in man-environment relationships had long known much more about the environment than about man. Now they wished to know more about man (and of course

woman), his demographic characteristics and the processes affecting his numbers, not only in the present and past but also in the future, because it was apparent that they were crucial to an understanding of past, present and future geographies. In short, international concern about population growth, especially at the world level, has exercised an important, perhaps even excessive influence, and a recent elementary text on population geography by Peters and Larkin (1979) for the American public reflects markedly this fact.

Population geographers were also faced with the growing mobility of mankind, facilitated by improvements in all types of transportation, as well as growing diversity in the forms of mobility. In particular, there has been a considerable increase in circulatory movements:

(a) transient movements of a seasonal and periodic nature, such as the movements of migrant workers and military personnel, which do not involve a permanent change in location; and
(b) temporary movements of shorter duration, such as journeys to work, shop, worship and leisure, which to some extent express the inefficiencies of locations.

In M.D.C.s particularly, such movements have been augmented by the increased availability of motor cars, rapid rail and air transport, changes in retailing and the increased number of second homes, while telephones, transistors, freezers and refrigerators, for example, may have had the opposite effect. Many of these forms of mobility are inadequately enumerated by conventional censuses, yet they are vital in the functioning of society (Chapman and Prothero, 1983). Moreover, there is little doubt that there is a mobility transition over time in association with social and economic developments, and that it has some connections, even if feeble, with demographic transition. Growing awareness of the complexities of mobility transition (Zelinsky, 1971; 1979) and their implications upon population redistribution and growth has been an important influence upon the research of many population geographers, as recently summarized by Lewis (1982).

Another factor stimulating the growth of population geography has been the reduction in the land-boundedness of mankind, especially in the M.D.C.s (Clarke, 1973). Man-land relationships are less close because of transformations in agriculture, increased industrialization, improved transportation and trade, changes in forms of energy, massive urbanization and the rapid growth of the service sector. Population has assumed a more causal role, and is less responsive to environmental and economic dictates. Its distribution is becoming more concentrated, because in very many countries, especially L.D.C.s, urban growth rates far exceed population growth rates and urbanization is increasingly localized in huge cities. The growth processes of large cities and their manifold problems have become a compelling focus for research by population geographers, as indeed have the recent moves towards

urban decentralization and deconcentration in M.D.C.s. The forces of concentration and dispersion are primary elements of population redistribution, a theme of growing significance during the 1970s and 1980s to population geographers and others (Gosling and Lim, 1979; U.N., 1981) concerned with policies trying to influence it.

Political changes

The period since mid-century has also seen the emergence of a large number of independent states, having the effect of nationalizing populations and to some extent stabilizing the overall world population distribution. State populations are separately administered and enumerated and have become the primary units of study by population geographers. Political boundaries act as demographic divides impeding free flows of people and separating populations with different demographic characteristics. Movements are still strongly divisible into internal and international, because the freedom of the former is usually much greater than of the latter, where checks, restrictions and quotas are frequently imposed in efforts to preserve national identities. Furthermore, as state populations are more closed than open, states feel responsible for their own population pressures and problems. All their policies have indirect effects upon demographic characteristics, but more and more governments are adopting direct policies to affect population growth and redistribution. So many governments are having an increasing influence upon demographic behaviour.

Countries vary enormously in population size and area, and during the 1970s population geographers became increasingly conscious of the effects of scale (Clarke, 1973; Kosiński and Webb, 1976). Micro-states are greatly affected by external migration, and are thus demographically more unstable than macro-states, which tend to be relatively more closed. The effects of scale may also be seen in the analysis of sub-national administrative units—also important units for population study—as, for example, the relative significance of natural change and migration tends to alter from one level of areal unit of analysis to another. As population geographers study populations ranging from enumeration areas to that of the whole world, the concept of scale has become an important theme, particularly for the I.G.U. Commission on Population Geography.

Although individual political units are the basic units of demographic consideration, continental regions have demographic as well as cultural distinctiveness which has attracted the attention of population geographers (Clarke, 1971; Trewartha, 1972 and 1978; Clarke and Fisher, 1972; Kosiński, 1970; Salt and Clout, 1976). The demographic characteristics of continental regions have probably become increasingly contrasted during recent decades, and consequently have become convenient units for syntheses and research

projects, reflecting the geographer's awareness of the importance of socio-economic processes in relation to demographic phenomena.

Geographical studies have been facilitated by the work of the various United Nations regional organizations (e.g. E.C.W.A., E.C.A., E.S.C.A.P.), who have played an important role in elucidating regional trends and processes, training personnel and in publishing data. Of course, the many technical publications and the huge amounts of internationally comparable population data published by the U.N. Department of Social and Economic Affairs have proved invaluable, and these have been supplemented by the advice and expertise to governments, as well as the work of the United Nations Fund for Population Activities (U.N.F.P.A.), the largest single donor to population activities of all sorts. In addition, there are numerous other international organizations, like the Population Council (e.g. **Population and Development Review**), Population Reference Bureau (e.g. the annual World Population Data Sheet), the United Nations Committee for Coordination of National Research in Demography (C.I.C.R.E.D.) and the International Union for the Scientific Study of Population (I.U.S.S.P.), which have had major influences upon the availability of data, the development and publication of research, including population geography, and the attitudes and policies of governments. In many ways population study has become an international industry, and population geography has been stimulated by this.

Data availability and handling

Under the influence of these many agencies, censuses have become more ubiquitous internationally and better in quality and comprehensiveness. Vital registration is not nearly as comprehensive or accurate, and thus demographers have developed techniques of analyzing often defective census data for the estimation of rates. Nevertheless, the volume of population data available in most countries has augmented continuously, sometimes by means of sample surveys, which have frequently proved to be a more satisfactory means of elucidating population processes than unwieldy, expensive and sometimes politically affected censuses, whose snapshot technique is better as an inventory than for analyzing processes of change. Sample surveys are of course an indispensable tool of a geographer, and many geographers engage in surveys of a demographic nature, partly because census data provide only selected characteristics of populations and therefore only an imperfect picture of human behaviour.

Along with many other social scientists in M.D.C.s in particular, some population geographers have been much attracted by the burgeoning interdisciplinary field of historical demography, reconstructing past populations from deficient data, notably ecclesiastical registers of births, marriages and deaths. They have been used extensively in the analysis of both urban and