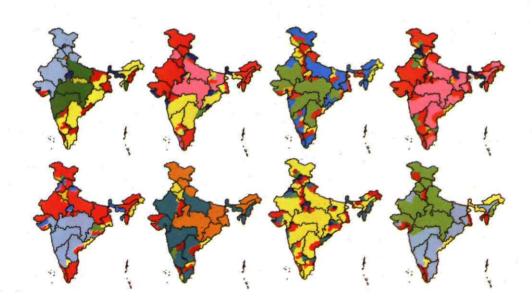


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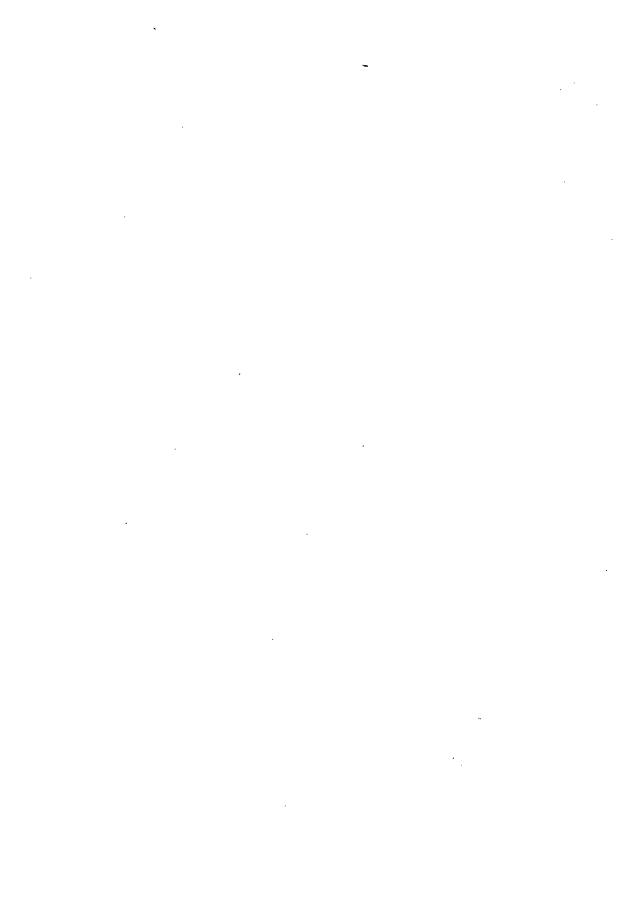
Essays on Population and Space in India





INSTITUT FRANÇAIS DE PONDICHÉRY

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Edited by Christophe Z. Guilmoto and Alain Vaguet

Published with the support of the Espace-Populations-Sociétés Université des Sciences et Technologies de Lille U.F.R. de Géographie (Villeneuve d'Ascq Cedex, France)



INSTITUT FRANÇAIS DE PONDICHÉRY

Christophe Z. GUILMOTO and Alain VAGUET (Eds.)

Essays on Population and Space in India, Pondicherry, French Institute of Pondicherry —2000, 256 p. (Publications du Département de Sciences Sociales, n°5).

Foreword p. 11; introduction p. 13; general bibliography p. 241

Map disclaimer: in spite of our efforts, the administrative boundaries shown on the maps in this volume may be neither correct nor accurate.

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ISBN 0971-3085

Text: layout by Tiaré Purushothaman

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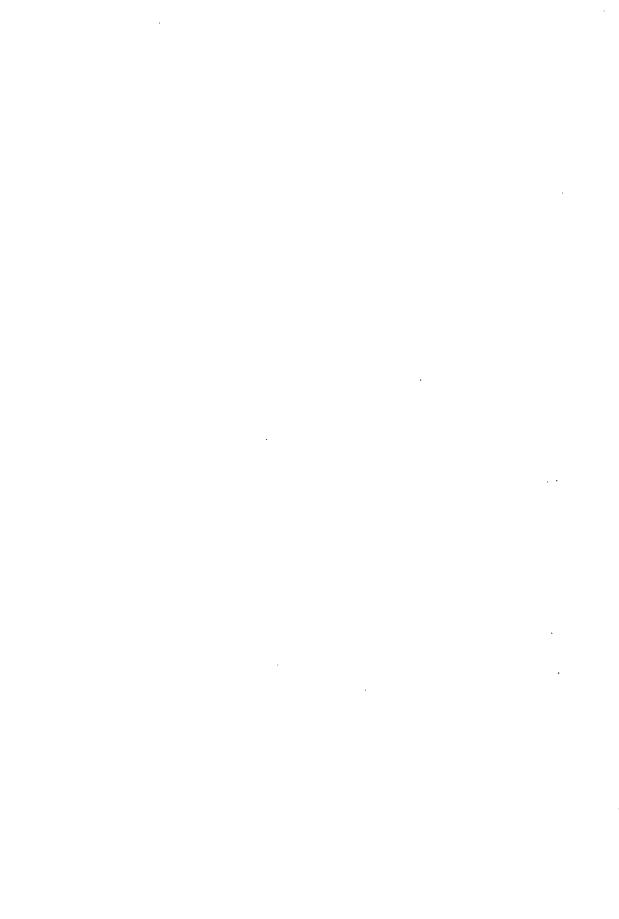
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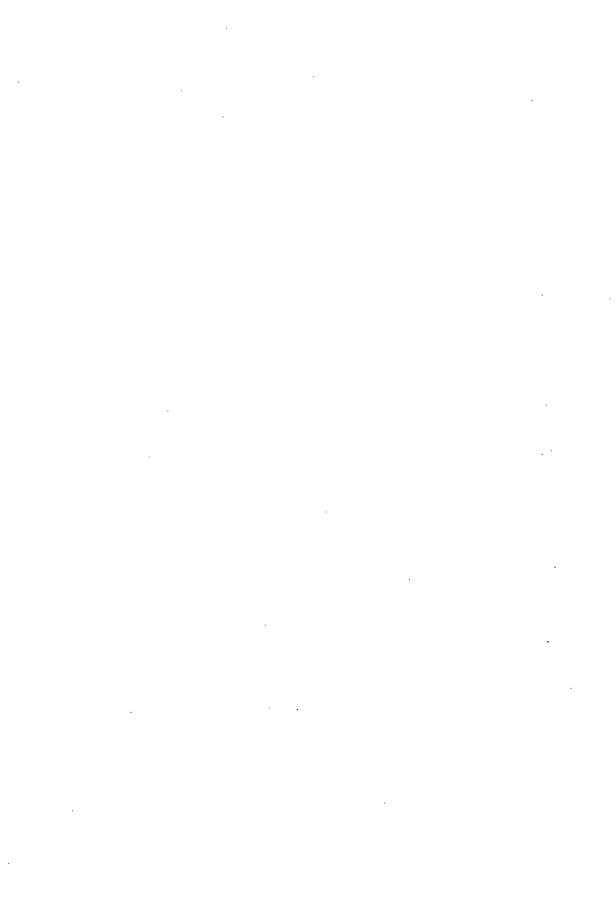


Foreword

This collection of essays was first edited by Alain Vaguet and published in French in 1997. Its objective was to bring together for the French reader a group of studies on Indian population. Many of authors who participated in the project are geographers from the University of Rouen, an institution with a long tradition of research in India, and from other French academic and research centres such as the CEIAS (Centre d'Etudes de l'Inde et de l'Asie du Sud), CNRS (Centre National de la Recherche Scientifique), IRD (Institut de Recherche pour le Développement) and others. Even if the initial intention was to focus closely on the geography of population, the varied research interests of the authors opened a large number of areas related to spatial organization in India, integrating demographic, economic anthropological questions.

Since the collection was well received by the French academic community, the editor Alain Vaguet, joined by Christophe Z. Guilmoto, prepared by an English (modified and updated) version in order to present these texts to a wider audience, primarily Indian readers. It is their wish to invite and stimulate further research and discussion regarding the compelling topic emerging from this collection - the spatialization of social change in India. The Department of Social Sciences at the French Institute, which actively pursues a research programme devoted to the changing spatial context of Indian society, welcomed this publication. It is an excellent occasion to make available the results of French research and scholarship to the scientific community in India.

The editors are indebted to the journal Espace-Populations-Sociétés, published by the University of Lille, for accepting to publish the volume in french on the occasion of the fiftieth anniversary of Indian independence, and for having supported this translation project from its inception. The editors are also grateful to Frédéric Landy for his initial assistance, as well as to the authors for having agreed to revise the translations and to modify the maps and figures, which turned out, at times, to be quite a complex activity. The volume has benefited a great deal from the assistance provided by Tiaré Purushothaman, G. Venkatasubramanian, James Walker and A.M. Stuttle, as well as by Corinne Giron, all of whom actively participated at various stages in the preparation of this work in Pondicherry.



Introduction: Spatial Contexts and Social Change

Christophe Z. GUILMOTO and Alain VAGUET

Indian territory, from regional to local level, remains a fundamentally composite space, divided into varying segments of more homogeneous appearance. Closer analysis, however, will soon show that these segments are themselves divided. This multiplicity of levels of differentiation in India rests upon a hierarchical grid of successively interlocking elements and, without any claim to exhaustiveness, a few successive stages can be noted: States arising after Independence, inclusive cultural region, linguistic and/or ethnic region, socio-historical sub-region, urban or rural localities, areas occupied by community or social class, street or hamlet, household and family, individuals distinguished on the basis of gender or age. The spaces and resources at each level are seen to be unequally shared among the actors who intervene in its continuous recomposition. In other words, each spatial context exhibits a high level of internal heterogeneity. To take a few examples, differences of a similar extent are visible between Kerala and the Gangetic valley (regional level), between town and countryside (local level), between upper classes and Dalits (social level), or between men and women (individual level). As the extent of this internal diversity in India may at times appear to be independent of the level under purview, it is reminiscent of a typical fractal structure.1 This calls for a proper identification of oppositions and complementarities at each level of analysis, in order to describe the spatial structuration principles as obtained in India.

Many chapters in this collection, each in its own way, illustrate the ubiquity of oppositions running across the regions, irrespective of the level of analysis chosen. The perspective adopted for the studies is in most cases predominantly synchronic and brings to the fore the contrasts which oppose social groups among themselves and which leave their imprint on the forms in which space is occupied. However, when information allows, the point of view is more dynamic and integrates different periods of reference in the study of spatial transformation. It is, therefore, a matter of accentuating the transformations and conjunctions in and among spatial contexts, through such diverse exchange mechanisms as migrations, innovation diffusion, or epidemics.

In reference to the fractal models which describe invariant processes according to scale and which are increasingly applied to urban growth. See Batty and Longley (1994).

The resulting image of India is that of a complex and rapidly evolving system characterized by perpetual spatial recombination. One can attempt to isolate different factors involved in social change, each of which has its own historical logic (slow or rapid trends, epiphenomena, historical accidents, ancestral institutional structures, etc.) operating at its own level (from local dynamics, nearly Brownian in nature, to regional groundswells). The mechanisms at work sometimes correspond to specific spatial contexts (for example, tribal India), but most often they constitute only one element among others which contribute to the structuring of spaces of composite regions. Thus, the high level of fertility in the Gangetic valley does not define a coherent space (except for the family planning lobby which concentrates its efforts there), even though it constitutes one of the characteristic features of a distinct cultural area in the interior of India. Each spatial context appears as the result of an ensemble of systems of social and economic relations around specific areas, established on exchange mechanisms as well as on struggles among local social groups. Space, therefore, corresponds more to a provisional status quo established among social dynamics, than it does to an invariant milieu.

India is today being constructed on this frame, combining inherited and continually re-negotiated spaces with those which are newly contested as a result of the migratory and economic redistribution characteristic of the dynamics of social change. Spaces that were historically shared by different social groups can also be at the mercy of a religious procession more boisterous than others, of new successful in-migrants, of a project for a dam or housing estate or of rising export prices for an agricultural product. These spaces, therefore, can very well fall into a pattern of turbulence in which social groups clash for control over territories and their resources. The growth and spectacular diversification of the available resources in India have heightened the division, locally accentuating the widening gulf between zones (states, districts, agglomerations, neighbourhoods, etc.) unevenly affected by the economic and social developments. These tensions have been superimposed on the historical map which reflects more the old regional equilibria founded on traditional institutions, and the land use system which was associated with them.

At the same time, the mechanisms of transformation have a homogenizing effect on the territories by giving rise to analogous and often simultaneous dynamics in formerly enclosed regions. The vectors of this homogenization are multiple: urbanization, migration, industrialization, mass media, epidemiological diffusion, etc. However, it is interesting to note that the particular contour of the propagation of social and economic change, which, for example, the growth of education in India delineates, does not illustrate only the progressive levelling of inter-regional variations under the effect of a central tendency. The regional advances and delays which cartography unambiguously indicates, are also manifest in the effects of opening up or resistance peculiar to each historical region and the force of opposition made by local institutions to the intrusion of certain vectors of "modernity".

The detailed survey of the interior limits of India is today progressing very rapidly, following a relative slumber linked to the thematic timidity of geographers and to a real underdevelopment of techniques in the treatment of spatial information. The range of available data has also grown, as data are being increasingly broken up on a smaller spatial level (on the level of district or smaller). With respect to several of the themes taken up by the authors in this collection, new studies are in the process of appearing and it would not be without interest to underscore examples of progress recorded in the production of an atlas of social geography, such as A Social and Economic Atlas of India, 1987, which makes use of data from 1981 by state and by district. At the same time, regional atlases have appeared, complementing the more systematic work of government organizations such as the National Survey or the Census of India, and undertaking a geographical re-reading of the assessed phenomena.

Government bodies, because of their pressing need for data to more closely follow the actions of development, have at times been able to play the role of a driving force in this endeavour of socio-demographic cartography. We shall, for example, cite the efforts of the 1981 Census to publish particularly rich atlases, combining an analysis of social data with that of the physical milieu. It is to be noted in this regard that the Indian census, the cartographic talents of which are irregular, has undertaken to update its cartographic knowledge and is on the point of distributing, as these lines are written, new atlases, in colour, of the Indian districts. The publications of the next census in 2000 will no doubt finally be accompanied by mapping at a level corresponding to the wealth of information collected. The *Panchayati Raj* will doubtlessly reinforce local needs for social and demographic information and could stimulate important developments in the years to come.⁴

At the initiative of geographers, notably at Jawaharlal Nehru University, different thematic atlases have also appeared in the field of the geography of population, such as that on tribal India (Raza and Ahmad 1990) which combines profuse statistics (unfortunately from 1971) and a considerable cartography with a very detailed spatial analysis of the tribal phenomenon in all regions of India. The cartographic exercise of de Golbéry and Chappuis reproduced in this collection, based on data from 1991, could encourage in the future the extension of the analysis made of tribal populations to the Dalit populations, which have been more adequately comprehended by the census since 1991, as well as to other minorities whose spatial concentration and segregation at different levels of analysis are very acute. The atlas

These atlases were published in the series Regional Divisions of India – A Cartographic Analysis. Occasional Papers, Census of India. 1989, New Delhi.

^{3.} See Census Atlas 1991 – India, Census of India 1991, New Delhi, 1999. Population Atlas 1991 – India, Census of India 1991, New Delhi, 1999.

^{4.} During the 1990s, Kerala initiated an ambitious project of statistical collection at the level of the panchayats on the occasion of campaigns for decentralized planning (Issac and Harilal, 1997). The yearbooks, prepared in Malayalam, often include different maps and statistics on a micro-local level and play an important role in terms of development programmes.

produced by the Anthropological Survey of India, certainly less detailed from the geographical point of view, presents very original data on the basis of surveys conducted among roughly 4 500 communities (castes, tribes, etc.) grouped according to state (Singh 1993). Also to be mentioned are a copious atlas devoted to child population (Raza and Nangial 1986) and the linguistic and ethnic atlas of South Asia recently published in English, with the support of the French Institute, by Roland Breton (1997). These atlases, which represent a considerable amount of labour, would merit being brought up to date, for they are mainly based on superseded data (1961 and 1971, in the case of the two latter works), in order to accurately restore certain spatial logics recently at work.

The chapter on sex ratio belongs to a work which led to the very recent publication of the Atlas of Men and Women. This atlas is worthy of note, combining the statistical and documentary knowledge of discrimination in India from a geographical perspective in which these practices are anchored in the logic of regional social institutions. In effect, it continues an important current in research notably exemplified by the pioneering anthropological research of Miller (1981) on the vulnerability of women in Indian space, and the more recent work by Aggarwal (1994), who gives the socio-economic contours. There remain areas yet little explored with the cartographic tool, often because of the incompleteness of available information, as for example in the area of health⁵. The work included in this volume undertaken by two young geographers from Rouen gives an idea of the material with which one is involved. But, other themes linked with the pressure on natural milieus (forest, coast, marshland, etc.), the networks of traffic and communication (transport, tourism and pilgrimage, migration, Internet, etc.) or, again, spatial inequality in agricultural and industrial development, are without doubt destined to become promising areas for a renewal of geographical investigations in India. The wealth of information being accumulated today on the maps of India also awaits a synthesis by regional geography which would bring up-to-date the pioneering work conducted nearly twenty years ago by Sopher (1980).

The articles herewith presented initially appeared in the journal Espace-Populations-Sociétés, with the exception of the chapter by Jackie Assayag devoted to the study of the state Ministry Commission of Karnataka⁶, which lies outside the theme of the space of Indian populations. We have grouped the articles, by way of convenience, in five sections centred on their primary subject (demography, health, town, etc.), but the reader will easily perceive the links between their different thematic echoes.

The first group of articles concerns the demographic "base", its unity, its singularity and, as one must immediately add, its diversity. If India was "on

^{5.} These difficulties are, for example, illustrated by the recent collection of nearly 45 contributions devoted to the geography of health prepared on the occasion of a seminar in Baroda (De, 1998). These studies rest on a cartography which is both timid and terribly out-of-date.

^{6. &}quot;Politics of Number. State, Statistics and Minorities in India (Karnataka)".

the way to a billion" at the close of the last census (Premi 1991), it has in the meantime nearly reached that number, although this, as is customarily the case, would not happen without statistical controversy. On the other hand, there is no doubt that the six billionth inhabitant, presumed to have been born in October 1999, had a greater probability of being born in India than anywhere else (notably greater than in Bosnia and Herzegovina, where the UN secretary chose to celebrate the birth). With a birth rate which is decreasing less rapidly than in China, India is in effect the country in the world which records the greatest number of annual births, and its population should reach that of its large northern neighbour in less than fifty years from now.

The character in the short story by Salman Rushdie⁸, portraying an overly credulous youth who accepts to be sterilized in exchange for the promise of a transistor radio, which he will never receive, has become obsolete. This fable indeed illustrates the unanimous rejection of the gloomy drift of the 1970s (Pai Panandiker et al., 1978), but in no way announces the transformations to come, or the "41 percent of the women from 30-34 years [...] sterilized, and 45 percent from 35-39 years". An era has thus passed and this country, as others, already begins to question itself as to the fate of its elderly population, the proportion of which will continue to increase at accelerated rates. 9 Christophe Z. Guilmoto traces the diffusion of this new behaviour in the infra-regional space. Beyond the nuances known to exist between north and south India, he identifies Malthusian pockets where - a paradox inconceivable until recently – the natural rate of increase, which is already very low in some districts, will soon be nil! These coastal or metropolitan areas on the periphery of to the Indian triangle, acting as centres of the diffusion of a new family ideal, are progressively encircling the focus of high fertility in the Gangetic region. Literate women can be considered as vectors of this change.

The next part of this collection considers the relations between town and countryside and the dynamics of differential development, which they illustrate. The rural zones, which benefited from the stimulus of the Green Revolution, have, however, experienced great diversification, local as a result of the development of non-agricultural activities, and external through the spatial mobility of the workforce.

Hélène Guetat-Bernard examines the context of the diversification of village activities, which lends numerous rural pockets the rhythm of industrial humming day and night. These occupations are only assessed with difficulty, being as they are anchored in an informal sector, by definition

^{7.} The international press circulated estimates (and alarmist commentaries) of the Worldwatch Institute in Washington which announced a figure of one billion in August 1999; the Indian Census Office counted less than 990 million at the same time. For regularly updated population estimates, see the demographic counter of the Census of India on the Internet (www.censusindia.net).

[&]quot;The Free Radio" in Rushdie (1995).

Considerations on the ageing of the Indian population were recently enriched by a solid demographic study (Rajan et al. 1999) and the first wide-ranging anthropological study (Cohen 1998).

inadequately known and fluctuating, but they concern a growing number of rural people. The latter, however, are still confined to a fifth of the active population in the countryside, an indication of the low level of development in India. By way of the dynamic arising of the green revolution, the sector can be analysed as a survival solution for the impoverished rural inhabitants, unable to intensify their agricultural production, and as an illustration of village initiatives, which supplant the inertia of small towns in Karnataka.

Elsewhere in India, Eric Leclerc leads us to the "roots of urbanization". He recalls that if the proportion of small towns would appear to stagnate, this is quite broadly to be explained by the very growth through which they change categories over the course of censuses. Unlike the case in Karnataka described by Hélène Guetat, it seems that in the district studied in Andhra Pradesh, the new administrative responsibilities (Mandal reforms) conferred on small market towns or large villages would have enhanced their capacity to attract people over an area whose radius corresponds to a distance "of a half-day's round trip, by foot or on a cycle".

Frédéric Landy and Jean-Luc Racine present in their text what could well be termed the factors of population retention in the rural zones, which still contain three quarters of the total population. In fact, the rural exodus only proceeds slowly. The largest migrations, sometimes stimulated by agricultural modernization, involve essentially intra-rural movements that take place through collective and temporary channels. Of course, many peregrinations draw "the least poor of the poor" towards the towns, but they do not reside there, or only for a short time. When they do resolve to remain there, it is a result of family strategy, organized from the village, and the duration is planned. The constraint of distance, the factor of "distance decay" cherished in gravity models employed by geographers, seems to be particularly strong in India because of the multiple social and cultural discontinuities encountered by the migrants underway. It might be asked whether the sociological thickness of the Indian humus is the ground of these multiple "friction effects" which slow down exchange and burden it with debt, and which are translated as much by the resistance to spatial mobility as by spatial segregation?

The chapters in the following section are quite logically concerned with the urban world and its quarter of a billion inhabitants at the end of the century. The approaches are again varied, ranging from an overall statistical analysis to social geography, by way of a monograph of the most dynamic of the large cities in the subcontinent.

From a statistical perspective and with a striking cartographic rendering, Graham Chapman and Pushpa Pathak restore the role of large cities to their regional context. In this way, the rural-urban continuum is revealed; here, it seems more appropriate to probe the entire urban systems than consider the cities in isolation. The authors, therefore, contrast Delhi and Mumbai with Calcutta and Chennai (Madras), the hinterland of which is rural. Based on calculations derived from a correlation matrix, certain well-established rural/urban nuances diminish to the advantage of regional features, notably as regards literacy of more than 6 years or the sex ratio.

After an "externalist" approach, Odette Louiset-Vaguet examines from the interior how the cities of India possess some characteristics of the universal urban and of the developing world. Then, taking a geo-anthropological approach, she examines the cultural specificities of a still predominantly rural Hindu society, which is also inventing itself in the rapid growth of peripheral areas. Without sublimating the particularisms cherished in Orientalist tradition, she nonetheless reflects on the original combination of the forms of socio-religious segregation with economic factors in spatial organization. The diverse occupations, to which reference is made, as much among the middle classes as among residents of shantytowns, make it possible to show a nuanced reality. Notwithstanding shifting configurations, the relation of Hindus to urban life preserves traces of aversions and hierarchies of a religious order, which remain a pivotal reference in the perception of social space.

Veronique Dupont, synthesizing diverse research operations she conducted in the Indian capital, which holds records in growth (1.4 million inhabitants in 1951, and certainly 10 million today), accounts for the forms taken by the process of "rurbanization". Other than the spreading out of families in the suburban periphery, the originality of the article lies in the consideration of the numerous rural migrants living on the pavements. Constituting one percent of the total population, that is, representing one lakh persons, they find a living space, but no abode, near the very dynamic historical centre of the city. Through their networks, these rurbans only foresee dwelling temporarily in the city, namely for the time required to ensure improved living conditions for the family which has remained in the village. However, this temporary sojourn often continues for several years. This city has indeed attempted to plan its growth, an exceptional occurrence, but the six largest peripheral towns, although they have accommodated a significant part of the growth too near to Delhi, have at the same time encouraged the number of commuters. Noida, developed in a voluntarist manner since the 1970s, would be a good example of success, having accommodated nearly 150,000 inhabitants and more than 4,000 factories. However, this process occurred to the detriment of villagers abruptly deprived of their lands who have become perforce urban dwellers.

The following section continues the investigation of the urban situation, employing tools from the geography of health in the exploration of two cities. Emmanuel Eliot studies the spread of the AIDS virus in Mumbai, a city which plays a focal part in the development of the pandemic in India. Notwithstanding the problems concerning data availability, and these are numerous for whomever would venture into epidemics which are as inadequately understood as they are denied, the author is able to conclude a certain permanence of pathogenic areas over the ages. The places which British health officers earlier described as having intolerable health conditions, that is, the central ward, in which the greatest poverty and the main quarters for prostitution are still concentrated today, are the same areas where the highest number of HIV-positive persons are recorded. Worse, and a sign of the pandemic, the number of tuberculosis deaths has doubled there

in less than 10 years. There is no doubt that the fluctuating populations at the heart of cities such as described in this volume (by Véronique Dupont regarding Delhi) would be active vectors of the spread of the disease to the rural zones.

Faced with such difficulties, which only add to an already very disquieting health picture, one is only too well aware of the weaknesses of the infrastructures in the public health sector. On the other hand, Florence Rihouey describes the striking emergence of new networks of private care in Hyderabad, the fifth largest city in India and henceforth a beacon of the revolution of new information technologies. These networks result from the curative demands of the upper and middle classes and above all, from the economic liberalization of the 1990s which has made the import of better equipment possible. This very lucrative sector is proliferating, an outcome of strategies of the dominant castes who have sized up the disengagement of the state. Recourse to these luxurious and costly hospitals remains, of course, locally limited. But the globalization of capital intended for investment in the health "market" is already beginning to be noticeable What is more, the flow of international clients has begun to take form, as patients of the diaspora are determined to benefit from Indian prices that are very low in comparison with the rich countries without networks of social protection or of health.

Concluding this volume, the last section of articles turns to the question of the division of space among majority and minority groups. Peter Atkins and his colleagues at Durham University and JNU explore the geography of the sex ratio, parallel to the cartographic work they have included in their recent atlas (Raju et al. 1999). For, to reach the world-wide average, India "lacks" some 32 million women, and this imbalance, indicating the persistence of their poor condition, continues to grow; the worst result was recorded in 1991, at the time of the last census¹⁰. Here again, precise localization makes it possible to discern opposed attitudes, for example, among the populations of the large Gangetic plain and the hill dwellers, above all tribes known for their egalitarianism between the sexes. This shows, moreover, the weakness of the relation between the level of wealth and the attention accorded to young girls. In the Punjab, the richest state in India, it is in the most well off, land-owning, families that the girls are clearly fed less than boys are. One thus recognizes that simplistic explications according to which the Muslims would bear the burden of the poor condition of women in north India are invalid. Few in number in the Punjab, where the sex ratio is all the same unbalanced the Muslims form a significant group in Kerala where, on the contrary, the ratios between the sexes balance out. Even though the situation always seems to be less severe in towns, the slow improvement in the living conditions of disadvantaged strata has led them the emulate the attitudes of more patriarchal dominant groups. Thus, paradoxically, the authors expect a worsening of the imbalance as economic development progresses, an expectation confirmed by recent speculation (Mayer 1999).

^{10.} See also the recent work by Agnihotri (1999).

The second chapter in the last section concerns populations which are numerically limited in India, but which are altogether essential from a geopolitical point of view; namely, the refugees who are this time studied in all of South Asia, the borders of which are more porous than elsewhere. Gilles Boquérat traces the history of the large movements of refugees which have accompanied regional events since Partition, obliterating the mark of great poverty of entire regions and in particular of Calcutta, where one fifth of the actual population of West Bengal consists of displaced persons from East Bengal. Wars, such as in Sri Lanka, the atrocities committed here against the Buddhist Chakmas or elsewhere against the Tibetans, the persecutions of Bhutanese of Nepali origin, all give rise to international movements of refugees.

Concluding this volume, Luc de Golbéry and Anne Chappuis present, based on district data, a first atlas regarding the largest disadvantaged minorities, the Dalits and the tribals. It should be noted that the administrative character and the definition of these groups, which can of course undergo significant changes in the course of censuses, can be directly read in the maps, as the authors remark in the case of the Lambadis¹¹. Among the other results of this collection of maps, one will note the astonishing opposition of localization between two communities, the one practically inscribed in the negative of the other. Likewise, one notes from the point of view of literacy levels, the asymmetry between the two coasts, whereby the advantage clearly lies with the western coastal strip.

A fascinating aspect in the publication of a work such as this is that it gives an impression of the researchers' perceptions at a given time. It is well known that this perception is filtered by representations, by effects of method, from which it is in vain to want to entirely escape. It is easy today to be amused at the testimonies of Megasthenes, who confused legendary personages from the sacred texts of Hinduism with living, real, Indians. He thus spread over this country for centuries ideas that were as marvellous as they were strange (Jain 1972). As for our work with its very modest ambitions, we are inclined to protect ourselves from such failings by revealing our studies in a language accessible to our Indian colleagues.

Be that as it may, we should not delude ourselves, for the tools of the human sciences, as scientific as they purport to be, are no guarantee against errors of interpretation. As evidence of this, we can refer to texts which are not so ancient as that of Megasthenes in which the fate of the peninsula appeared necessarily to be doomed to famines or other apocalypses linked to an alleged over-population. Quite extraordinarily, the numerical plethora of this frequently wounded civilization does not impede its development. Its population is its wealth; its number a choice of society.

These remarks do not prevent us from assuming a viewpoint, even should one, by wanting to judge social mutation "in vivo", run the risk of freezing a

^{11.} A cartographic analysis of the growth of the Dalit population thus mentions the effect of the inclusion of Neo-Buddhists in the Scheduled Castes as the cause of the apparently sudden statistical rise of Dalits in Maharashtra. See Gosal (1997).

process which is in progress and thus of mistaking oneself. For example, in the health domain, Rihouey, like Baru in his recent book (1998), agrees in deploring the rise in strength of the privatisation of health-care structures which would result in a reinforcement of the inequality of access to medical attention. This danger can be clearly seen, but who can claim that the innumerable clinics, sometimes organized on a charitable basis, do not respond to a real demand? Must the state organize everything? The originality of financial arrangements and the subtlety of the role of castes show an affirmed endogenous character. The bio-medical health system, of exogenous nature, is seen to be locally organized according to Indian modalities, even though globally its process of privatisation includes it in a context of globalization (Vaguet, forthcoming).

The researchers brought together in this volume would readily agree on the modesty which these essays are bound to evidence, so rich and embedded is the content of Indian space. The articles we present here constitute "just a few images" of an immense and complex world, perhaps not a "just image". Nevertheless, our readers henceforth have more material to form, in their turn, new images of the Indian prism and of its transitional geography.

¹² Comment freely inspired by the considerations of Pierre Bourdieu (1996) on television.