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# **Sustainable Geography**

Roger Brunet

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## Sustainable Geography



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Roger Brunet

*Series Editor*  
*Pierre Dumolard*

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 WILEY

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## Preface

Like any living science, geography has changed considerably. Fortunate enough to be both a witness and to participate in these transformations, I have observed that it has not been a linear evolution but rather has advanced in stages. Certain people believe that the evolution was advanced by a succession of negations: it is easier for them to forget a moment rather than integrate its most reliable assets. Even if science is not shielded from trends, it progresses more by successive assimilations, by accretion, rather than by negative events and omissions that would only set it back; this is its strength over time and its sustainability, contrary to popular opinion.

### **From nature to man**

A key moment was the period between the 1960s and 1970s, when geography, while evolving towards the social sciences, took on a more scientific aspect. This could seem like a paradox, but is not. For a long time, geography was dominated by the practice of natural sciences. It studied the Earth as a planet, primarily in its physical aspects, limiting itself to the Earth's epidermis, as said then, the ground over which humanity spread, its natural habitat, rather than humanity itself was the focus of attention. It was said to study "the relationships of man and of nature", which was partly true of previous eras.

Towards 1950, this was no longer even very accurate: geography was focused on nature, and even on a single aspect of nature, the landforms. It had learnt to be somewhat thorough, but without sufficient scientific grounds. The training of geographers remained literary, in the old tradition of tales of journeys and exploration. Its forays into human societies were characterized by this: even though it was interested in certain groups, it was especially interested in the "natives", the exotic peoples that were called "primitive" at the time. In this respect, contemporary geography in the media, as found in *Geo* or *National Geographic* has not

significantly changed: preferring the picturesque, it always favors “nature” and the latent curiosity towards the most marginal groups of humans in our globalized world.

In the mean time, nonetheless, physical geography had thankfully developed, and better concerned itself with the living aspects of nature, especially plants and soils, as well as with the atmospheric and oceanic circulations. It has needed to get closer to natural science and even physics specialists and their methods. It has discovered that by concerning itself with accidents it could integrate the notion of *risk*, which at the same time was to adopt the point of view of human societies. More thorough than human geography before the 1960s, physical geography has kept on its scientific course, all the while becoming more and more interested in human societies and integrating the environmental dimension precisely: it became an ecology.

Until the 1960s, approximately, human and regional geography was primarily descriptive and monographic. It could use numbers in abundance, but forgot to draw conclusions from these. When it tried to generalize, at best, it was by describing certain well-defined *ideal types*, based on appearances. The worst case scenario was that it would lose itself in dangerous political doctrines, which attempted to justify imperialist and aggressive attitudes. It was on the name of “nature” that it depended totally and to which it submitted all its ideas: the doctrines of vital space (*Lebensraum*), of natural borders (*Naturgrenze*), justifications for the colonization of “primitive” countries, the *Geopolitik* of the German generals as well as Pinochet, and “the land that does not lie”, which embodied the “true” peasant values – Blut und Boden in German.

### **Is there a new geography?**

The end of Nazism meant that these wanderings were more or less forgotten. New generations of geographers were looking for something else, and to better understand the world, its divisions and its potential. Several openings arose: the thoughts of cybernetics (N. Wiener and L. von Bertalanffy) and system theories resulting from “hard” science; the work of philosophers and sociologists or anthropologists, such as C. Levi-Strauss, the active discussions of Marxist hypotheses; the development of models and means of calculation by economists. The research environment had changed, while at the same time provoking a true variety of approaches and attitudes.

Then we began to discuss models and theory in human geography, particularly in urban studies. The trend has been more swift and more technical with English-speaking geographers: the publications of T. Hägerstrand, B. Berry and P. Haggett

have had an impact, as well as the theoretical ideas of G. Olsson, W. Bunge and P. Gould. The trend has been slower in France and in the more “literary” countries that have Latin origins, as well as in Russia where the “dominance of nature” has mobilized geographers, and where the social sciences were repressed. At least people could start thinking of systems, models, theories and practice at the same time. It seemed like a “new geography”; it was, at least, a real change.

The trend became more generalized, and inevitably there were contradictions. It had its own tangents, just like in economy, towards the dehumanization of human actions in favor of supposedly acting abstractions, of quasi-entelechies forgetting the real players of the geographic space. A “radical” geography appeared with the aim to make the dominated players and the oppressed minorities the center of the debate. This was renamed “social geography” in France, and it put forward a “spatialism” that was truly exaggerated or sometimes imaginary. The report that I wrote for the French government in 1982<sup>1</sup> acknowledged this evolution of the practice of geography towards a science of man and society, the broadening of its interests, the way it looked at and discussed things.

The 1980s established the background trend, by spreading the precious methods of calculation and cartography made possible by personal computers, and then the Internet and the diffusion of methods and techniques of scientific analysis. They slowed down the protests: geography did not escape the so-called postmodernist attitudes, the relativist, and “constructivist” critics and many other “ists”, which proves that it was in good health. Nonetheless, these were and remain watered down versions, somewhat behind the times, and rather vague: the learning of social sciences is still an unfinished task.

At least, the expression of geography as a social science has become even more accentuated. There has been a paradigm shift: we have gone from the “relation between man and nature” to the production and organization of the spaces of humanity. Progress is sensitive, however, even when geography deals with environmental questions, as it takes on more firmly and rigorously the comprehension of human processes and actions on land. It is regrettable that it is so little mentioned in contemporary debates on global ecology and global warming. Its sense of scale, what happens in the field, as well as climatic oscillations, would enable many geographers to make an impact in terms of measure and common sense: how the territories are managed is a good indicator of what needs to be done and how big the problem really is.

---

<sup>1</sup> BRUNET Roger, “Rapport sur la géographie française”, *L'Espace Géographique*, vol. 3, pp. 196-214, 1982.

### **Towards a sustainable geography**

For a long time, these trends did not really coincide with regional geography, which was what interested me. What appeared to me as key in our research as geographers was to understand the existence, creation, and evolution of different regions: why it is so here, and different over there? Why do these differences in landscapes, populations, activities, of development exist? Why were there even different names, and did they correspond to different content, under different appearances? What lies behind the countless facets of the world? Just as in painting, it was necessary to “give a shape to the shapeless”, or better still to understand the different forms that the “face of the Earth” took on. Little by little I felt the need to look for the logic behind the organization and the differentiation of these spaces, and finally the *production* of these spaces.

Geographical spaces are the result of the work of human societies, in spaces that are already present, which have been transformed by previous societies. It is, therefore, necessary to know and understand the players and their thought process, the rules of production, and the organization of different territories; and the networks that link them together. The forms that we study all have a social logic, that go together with inherited forms, which are, in part, of natural origin. This is true on all levels: the world as a whole, the continents, the big regions, the countries and their districts.

The various aspects of the work presented in this book were constructed over a long period of time, with publications dating from 1952 to the present date. The environment has been modified by the transition to mass teaching, the revolution of communication and information, the reconfiguration of the world and of its centers, and the rise of new fears. The intellectual environment has also changed, going from empirical to Marxist debates, followed by quantitative and structuralist movements, and then deconstructive-constructive and postmodern, and a few neo-religions of market, profit, geopolitics and ecologism. These shifts and breaks affect everyone. However, a general idea remains, or maybe, just a way of seeing things.

My work aims to build a reasoned and rational geography, keen to understand the logic behind the production of geographic spaces in all their aspects, the rules of their organization, and all the diversity of their forms. It has shared common ground with the geography of English-speaking countries, but is different in its cultural background and its expression. Among others, and in its own way, it has sought to be worthwhile in the field of social sciences and maybe also useful in the management and development of territories. Therefore, contributing to establish the basis of a *sustainable geography*:

A sustainable geography is a geography that I can support, maintain, and justify, because of its place among the other sciences and by its scientific practice. It is a geography that, in its processes, can realistically survive the changes of the world and the places within it, all the while constantly incorporating new assets. A geography that does not idealize nature as eternal and invariable data, and even less so in its “pre-industrial” situation, as was stated in the conclusion of the summit of the UN in Copenhagen (December 2009), but which takes into account the ability that humanity has to adapt and evolve to a nature that is changing and different depending on the regions, nowhere or ever “ideal”. A geography that has a solid theory based on verifiable facts. A geography that is capable of adapting to the new tools of knowledge and research, as well as world changes and the representations of the world, while keeping a necessary distance from the object. A geography that is fundamentally critical and that is never satisfied with the state of science or of the world.

This book is an illustration as well as an explanation of the process that aims to achieve sustainable geography. It brings together old texts (either refashioned or summarized) which have been published in a variety of journals and books, as well as new unpublished texts. The first part is about the fundamentals of the theory behind the production of geographic spaces. The others deal with certain aspects that have particularly interested me: the ruptures and discontinuities in space; the analysis of structures and spatial dynamics; the scales of this analysis; the uses and content of geography.

### **Acknowledgements**

Let me take this opportunity to thank all those to whom I owe something: friends that accompanied me on the adventures of *L'Espace Géographique* and *Mappemonde*, and the RECLUS group, who have enriched my work with their discussions and support; all those whose philosophical and scientific writings inspired further thought, obviously too numerous to be cited – with nonetheless a special mention among the geographers for Peter Haggett and Peter Gould, for Jean-Bernard Racine, Jean Tricart, Henri Reymond, François Durand-Dastès, Olivier Dollfus, Giuseppe Dematteis and Horacio Capel.



## Author Biography

Born in Toulouse in 1931, I studied at the University of Toulouse. My first research projects (1951-1953) were geomorphological, on the one hand on the forms and erosion of the Terrefort hills of Toulouse, on the other hand on the high Pyrenean mountains and the small glaciers that are found there: a pleasant time, a time of field work and exploration of mysteries. I also wrote several reports and articles between 1951 and 1957<sup>1</sup>. Then, after a brief spell as a high-school teacher, I returned to university to dedicate myself to human and regional geography, which were, at the time, in my opinion, extremely archaic and only loosely based on science. Changing this was the motivation for my PhD thesis.

The main thesis took me 8 years (1957-1965), as required by the French doctorate system at the time; it was based on the analysis of the delay and transformations of the countryside around Toulouse<sup>2</sup>. I attempted to argue a traditional and careless explanation for this situation from the “*whims of the climate*”. I could demonstrate that they were mainly due to the history of rural property: the bourgeoisie of the landowners, via sharecropping, had sucked the plus-values of wheat production, without investing in productive activities; this had stopped any serious attempt at agricultural investment, fixing impoverished workers in a polyculture of self-consummation.

The recent progress came about with new capital, especially from North Africa, and attempts at cooperation and training, as well the progressive disappearance of sharecropping; this showed that these fields were perfectly able to support modern production. This research was based on 1,300 villages, obviously before the dawn of computers. It required a large amount of fieldwork, of historical research, statistical research, and numerous interviews that enabled me to meet fascinating people, rich

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1 See Part 2, Chapter 6 in this book.

2 *Les Campagnes toulousaines*, Publications de la Faculté des Lettres et Sciences humaines, Toulouse, 1965.

personalities, gleaming subtleties, and kept me from all illusion of “peasant wisdom”, mostly made of routine and ruse.

A “complementary thesis” was needed in another domain: I decided to work (in 1965) on discontinuity phenomena<sup>3</sup>, in opposition to an idea that was widely spread among the best geomorphologists. For them, a break in an evolution or on a slope could only be exogenous, an external accident. My idea, based on numerous readings of Marxian and systemic literature, was to demonstrate that breaks, and even reversals and changes in quality, could come from simple progressive changes in quantity in a continuous evolution. I found a number of examples of this, whether in physical geography (water, climate, vegetation forms and landforms), or in human geography (densities, distance to the town, etc.) and I came to see that the “region”, *sensu lato*, was an expression of the discontinuity of the spatial systems.

I kept on this path, guiding student’s dissertations towards “rural suburbs”. In parallel, my teaching had led me to reflect on regional cartography: in 1962, I published a manual on the state of art, and was faced with the limitations of “synthesis” maps. Research done on rural suburbs, readings of the then new cybernetics (N. Wiener and L. von Bertalanffy) and the contemporary reading of model-rich books in English (P. Haggett, R. Abler, J. Adams & P. Gould, K. Chapman, etc.) that were starting to appear, which made me think about the concepts of system, structure, model, and about the methods of research and representation that could be deduced from this in regional geography

It was in Reims in the Champagne region (1967-1974) that I continued this research in more depth and the teaching that I associated with this in theoretical and quantitative geography, all the while publishing a collection of essays on rural districts<sup>4</sup>. I had decided to leave Toulouse to head a new geography department in a university that was being formed, which gave me total freedom to work as I saw fit, even if the material means were limited and teaching took up a lot of time. The students, extremely motivated and happy to be able to benefit from a new university, were a great help. Along with Etienne Juillard of Strasbourg University, we were able to acquire from the National Center of Scientific Research a “cooperative

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3 *Les phénomènes de discontinuité en géographie*, Centre National de la Recherche Scientifique, Mémoires et Documents, Paris, 1967.

4 “Quartiers ruraux du Midi toulousain”, Toulouse: *Revue géographique des Pyrénées et du Sud-Ouest*, 1969. “Sozialstruktur und Region im Agrargeographie”, *Muenchen Studien zur Sozialgeographie und Wirtschaftsgeographie*, 1968, Zum Standort der Sozialgeographie (f. W. Hartke). “La notion de quartier rural”. *Bulletin de l'Association de Géographes français*, 1968.

research program” dedicated to spatial systems. My first publications on the systems and geography models are from this time<sup>5</sup>.

Those years were also a time of great demand in urban development. The support of the DATAR (governmental organism for the development of the territory) enabled several universities, led by Jacqueline Beaujeu-Garnier of Paris, to create a cooperation to study the Paris Basin; I had to manage it and to work on the “crown cities” surrounding Paris. In Reims we created a whole series of analyses of towns in the Champagne region, in strong liaison with the public services and professional organizations. I then created a periodical (TIGR, *Travaux de l'Institut de Géographie de Reims*, 1969) that is still going today, and managed a large *Atlas of the Champagne-Ardenne region* (1973). Together with the Law Department, in 1971, I created an Institute of Development and Environment of Reims University (IATEUR), which also still exists and trains specialists for public organizations and local authorities. The word *environment* was then in its infancy: we were showing an early interest in ecological questions that were not yet at the forefront of research, but which were of interest to us.

The publishers were getting their act together as well: I took the opportunity to create the scientific journal *L'Espace Géographique* at Doin's in 1972, with the help of a few friends, with the aim of establishing it as the high-level and modern-spirited French journal that to me was lacking among the international journals. At the same time, I had accepted a proposal from Larousse who had asked me to write a new edition of *Géographie de la France* in two large volumes, for which I assembled a team. Very quickly, it became a widely circulated weekly color booklet, named *Découvrir la France* (112 issues of 20 pages, 1972-1974) which was able to reach a wide audience: a difficult challenge, over more than 2 years, but nonetheless fascinating and encouraged by success, and followed by the books which were published according to region. I gained valuable lessons in editing, critique, writing, and graphic expression. A series of the same type on the *Beautés de la France* came next, but the scripts for this came from journalists and my work as editor was less busy.

In 1974 I changed position and line of work: the CNRS (National Centre of Scientific Research) asked me to be at the head of its center for documentation and

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5 “Organisation de l'espace et cartographie de modèles, l'exemple du Massif Central”. *L'Espace géographique*, 1972. “Pour une théorie de la géographie régionale” in *La Pensée géographique française* (Mélanges A. MEYNIER), 1972. “Structure et dynamisme de l'espace français”. *L'Espace Géographique*, 1973. “Spatial systems and structures. A model and a case study”. *Geoforum*, vol. 6, 1975. “La ‘New Geography’ en France”. In *Human geography in France and Britain* (R. CLARKE & P. PINCHEMEL eds.), SSRC-IBG, London 1975. “Systèmes et approche systémique en géographie”. *Bulletin de l'Association de Géographes Français*, 1979.

information in social sciences, situated in Paris, where more than 100 people analyzed international journals in all social and human sciences, using the large computers of the time, which was groundbreaking; and to manage, at the same time, the geography information and documentation laboratory, which employed around 20 people. This was a challenge I was interested in taking on, as I felt the need at that time to better inform myself on other human sciences, convinced that the future of geography lay within these sciences, as a specialist of the spaces of humanity on Earth. During my time there, I united the different publications in a computer database named FRANCIS associated with the physical sciences PASCAL database, undertook the computerization of the venerable *Bibliographie Géographique Internationale* that joined FRANCIS, and created an Intergéo newscast. I almost entirely left behind geographical research to dedicate myself to this, as well as a number of international meetings, as well as to read and meditate on the other human sciences. However, I was able to write a book on the Champagne region and formalize a few ideas on the modeling of structures and spatial dynamics<sup>6</sup>.

A new circumstance could only accentuate this evolution, all the while slowing down this research, and look to new horizons: following the long-awaited victory of the left in 1981, I was asked to become a counsellor at the Ministry of Research, in charge of social sciences, and then to become head of department of social sciences within the same ministry. From 1981 to 1984, I tried to contribute to the development and financing of different human and social sciences, and necessary reforms, and be able to observe as a relative outsider, sometimes with amusement, sometimes with pain, the behaviors and conflicts of the tribe of thinkers and workers of the social sciences. I did not wish to remain too long with administrative duties, where the art of diplomacy and moderation were preferred over that of impulse, and it was not possible to convince the different and numerous libraries of human sciences that we had prepared – the new French “great library” (Bibliothèque François Mitterrand) already had all the plaudits and the media.

Being in charge of archeology, history, sociology or philosophy, I suggested to the geographers to build a new kind of research team, adequately funded, for which I received a positive response. This was the adventure of the public interest group RECLUS (Study network of the changes in the localizations and spatial units), for which, in agreement with my friends, I chose an acronym that paid tribute to Élisée Reclus, the great French geographer of the 19<sup>th</sup> century. Seen as an anarchist, he had mainly worked abroad and official academic circles had ignored him on purpose: moreover, from my perspective, his work was of much superior quality and more depth than that of Vidal de la Blache, curator and sovereign, too long considered as “the” French geographer. It was necessary to decentralize: Montpellier was chosen,

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<sup>6</sup> *Atlas et géographie de Champagne, Pays de Meuse, Basse-Bourgogne*, Flammarion, Paris, 1981. “La composition des modèles dans l’analyse spatiale”. *L’Espace géographique*, vol. 4, 1980 (in this book Part 3, Chapter 14).

as an attractive and up and coming town, and I left the ministry to take direction of this group from 1984 to 1990.

Financed by more than 20 ministries and public organizations, RECLUS brought together with the Maison de la Géographie of Montpellier as many as 50 collaborators, and worked in a network with around 30 teams scattered around France, to which it entrusted part of their research and financing. RECLUS committed itself to three agendas: the publication of a new *Géographie Universelle*, the making of an *Atlas de France*, the study of feasibility of an *Observatoire de la Dynamique des Localisations* having as a goal to follow what was changing world geography, in particular the opening and closing of factories, mines and of facilities worth mentioning. The gamble on information technology was fundamental and, thanks to Patrick Brossier, an excellent specialist who had wished to accompany us, we were rapidly able to implement a pioneering system of automatic cartography production by integration of statistical data, as early as 1985.

The *Géographie Universelle* was a true collective work, requiring numerous and fruitful meetings for work and the critique of the projects. It was published from 1990 to 1996 in 10 double volumes illustrated in color; other than the direction of the collection, I was in charge of the general presentation of geography in the first volume, and of the ex-USSR, which had become in the meantime *La Russie et les pays proches*, in the last volume. The *Atlas de France* was published in 14 volumes from 1995 to 2001. The development of these publications was due to a background work, of method and form. Thousands of files were drawn up in the observatory observation, that for while published a *Lettre d'Odile*; but, regrettably, we had to conclude that the French government would not give itself the necessary means to the maintenance and success of such an observatory.

Numerous research contracts were executed during this time, for French and European public organizations and even for a few private companies, especially in terms of evaluation and prospecting of the territories. I personally invested my research time, for example, in the study of free zones and tax havens (1985-1986)<sup>7</sup>, of employment<sup>8</sup>, of the industrial dynamics of France<sup>9</sup>, the comparison of European cities<sup>10</sup>, transport systems<sup>11</sup>, and numerous works on the Languedoc and the

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7 *Atlas des zones franches et des paradis fiscaux*, Fayard-RECLUS, Paris, 1986. "Les zones franches dans la division internationale du travail". Enna, Colloquio *Il Processo Regionale*, 1985 (hereafter Part 2, Chapter 9, "Sustainable Geography"). "Paradis fiscaux et lieux francs", International Assoc. of Young Lawyers, Madeira, 1992.

8 *La vérité sur l'emploi en France*, Larousse, Paris, 1987.

9 *Le redéploiement industriel*, Ministère de l'Industrie et RECLUS, Paris, 1986.

10 *Les villes "Européennes"*, DATAR-RECLUS-La Documentation française, Paris, 1989. Republished in English, Catalan, Spanish, and French by Ajuntament de Barcelona in 1991.

11 Several reports and papers, i.e. "L'Enjeu du transport", *L'Espace Géographique*, vol. 3, 1993.

Mediterranean. The writing of the general volume of the *Géographie Universelle* (published in 1990) required a large amount of theoretical thinking, based on numerous critical discussions, whereas the use of choremes and choremetics was developing, concepts that I led to formalize, discuss and enrich. A whole series of articles on geography, its methods and its evolution, came out of this<sup>12</sup>. Large contributions to the issue of territorial development in France and in Europe were produced, causing many interventions, lessons, and conferences in the professional and associative environments.

In parallel, I continued my research on the soviet system and followed its collapse closely. I worked from 1980 on the concept of alienation of territories, and especially by the soviet system, which I was looking to understand. My trips to the USSR and Eastern Europe due to my duties in the information of social sciences had opened me up to the fundamental issues on the nature of the existing system. I published a summary of the accessible information on the geography of the Gulag<sup>13</sup>, and a systemic sketch on the “Eastern system”<sup>14</sup>, as well as analysis of the world of geographers of the USSR<sup>15</sup>. After 1990, preparing the part of the *Géographie Universelle* dedicated to Russia (published in 1996), I carried out new trips in the country, with the help of a friendly professor, V. Kolosov.

Other than more or less confidential reports, RECLUS published a little over 120 books and brochures from the results of research or aiming to give the means for geographers to work, such as textbooks, developments, and free ideas in a collection called *Géographie*, where I published a book<sup>16</sup>. The totality of the editing work, cartography by computer and layouts, was done on site, as well as the *L'Espace Géographique*, which continued its fruitful reunions of writing and debate committees, also publishing a selection of articles in English<sup>17</sup>. *La Carte, mode d'emploi et Les Mots de la géographie, dictionnaire critique*<sup>18</sup> were bookshop successes and were re-edited. A new journal, *Mappemonde*, was created in 1986 and dedicated to geographical images (now in free access at <http://mappemonde.mgm.fr>). RECLUS was a place of active diffusion of graphic

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12 For example “Redéploiements de la géographie”, *Cahiers Géographiques de Québec*, 1988. “L'Aveuglante unité de la géographie”, *L'Espace Géographique*, 1989. “La géographie, science des territoires et des réseaux”, *Cahiers de Géographie de Québec*, 1996.

13 “Géographie du Goulag”. *L'Espace Géographique*, 1981.

14 “Le système oriental et son espace, schéma d'analyse de système”, Géopoint, Avignon, 1984.

15 “Soviet Geographers”, *Soviet Geography*, 1990.

16 *Le Territoire dans les turbulences*, RECLUS, Montpellier, 1990.

17 *Two Decades of L'Espace Géographique, an anthology*. RECLUS, Montpellier, 1993.

18 *La Carte, mode d'emploi*, Fayard-RECLUS, Paris, 1987. *Les Mots de la Géographie, dictionnaire critique*, La Documentation française-RECLUS, Paris, 1992 (with R. FERRAS and H. THERY).

models and choromatic analyses, which were very rapidly diffused into education in middle schools, high schools, and even primary schools.

In 1990, I chose to transfer the leadership of RECLUS to Hervé Théry, who was prepared for it; I kept the editorial responsibilities, chiefly the direction of the two journals and the *Géographie Universelle*, and I organized, at the request of the Minister of Research one of the international conferences of the ministry, dedicated to “Geography: situate, evaluate, model” (Paris, December 1990). I was called to take a seat at the National Committee of Development of the Territory (1994-1995), as well as several scientific committees, and dedicated time to relationships with the media and numerous private and public organizations.

From 1996, I started explorations from the new and wonderful tool that was the Internet, extracting geographical information on a few chosen topics. In the extension of the last volume of *Géographie Universelle*, I published *La Russie, Dictionnaire Géographique*, which required a large amount of research and cartography<sup>19</sup>, as well as two volumes subtitled *Raisons de Géographe*<sup>20</sup>; then, in the same series, I reused my introductory text of *Géographie Universelle* under the title *Le Déchiffrement du Monde*.

The vast possibilities of the Internet and the research on nuclear energy in the world<sup>21</sup> and on Kazakhstan<sup>22</sup> led me to become interested in the world of the diamond, which seemed to me to be the subject of big changes; I compiled and crossed an abundant amount of documentation and published an analysis and a synthesis of the transformations of this closed world of the diamond<sup>23</sup>, accentuating a method that I think to be useful: the distinction between a constructed and reasoned tale, easy to read and the detailed “proof”, united in the form of a double dictionary of the actors and the places.

This taste for dictionaries, which I have had since I was a child, and the need to fulfil one of the functions of the geographer, which is to inform others about places, aiming for a wide public, then led me to a heavy task. Under the title *France: le Trésor des Régions*<sup>24</sup>, it consisted of publishing files and illustrations on the places of France: situations and landscapes, heritage, facilities and activities. The work represents the equivalent of a 250 to 500 page book for each of these 27 regions (or

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19 *La Russie, Dictionnaire Géographique*, La Documentation française-RECLUS, Paris, 2001.

20 *Champs et contrechamps*, Belin, Paris, 1997. *Territoires de France et d'Europe*, Belin, Paris, 1997. *Le Déchiffrement du Monde*, Belin, Paris, 2001.

21 “Centrales nucléaires dans le Monde”, *Mappemonde*, vol. 60, 2000.

22 “Hauts lieux et mauvais lieux du Kazakhstan”, *L'Espace Géographique*, vol. 1, 2001.

23 *Le Diamant, un monde en revolution*, Belin, Paris, 2003.

24 Free access online at <http://tresordesregions.mgm.fr>.

groups of overseas territories) and is presently completed and available for free on the Internet (<http://tresordesregions.mgm.fr>), but requires regular updates. At the same time, I extended several works on Europe<sup>25</sup>, models<sup>26</sup>, methods, and the place of geography<sup>27</sup>. In parallel, I continued analyses of the geography of social inequalities and on the organization of urban and regional spaces, and a reflexion on certain aspects of globalization<sup>28</sup>.

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25 “Les lignes de force de l'Europe”, *Mappemonde*, vol. 65, 2002. “Transnational urban systems in Europe: towards a new modernity. In I. BEKEMANS & E. MIRA, *Civitas Europa. Cities, Urban Systems and Cultural Regions Between Diversity and Convergence*, P. LANG, Brussels, 2000. “Des villes comme Lleida. Place et perspectives des villes moyennes en Europe”, in C. BELLET and J. LLOP *Ciudades intermedias. Urbanización y Sistemilidad*, El Milenio, Lleida, 2000. “La Corse, région d'Europe”, *Mappemonde*, vol. 76, 2004.

26 “Des modèles en géographie? Sens d'une recherche”, *Bulletin de la Société de Géographie de Liège*, vol. 39, 2000.

27 “La géographie sur la place: emplois et modes d'emploi”, *Revue Belge de Géographie*, vol. 2, 2003. “Raisons et saisons de géographe”, *Geo-Carrefour*, vol. 1 2003, *Le Développement des territoires: lois, formes, aménagement*, Région Nord-Pas-de-Calais, coll. les Rencontres du nouveau siècle, and La Tour d'Aigues, Ed. de l'Aube, Lille, 2004. “Produzione di territorio: attori e leggi nel mondo reale”. In G. DEMATTEIS *Le Frontere delle Geografia*, UTET, Torino, 2009.

28 See hereafter Part 3, Chapter 17 (Tours) and Part 4, Chapter 19 (Globalization).

PART 1

Geographical Space Production:  
Systems and Laws

