

THE RECENT EVOLUTION OF RESEARCH IN SPANISH GEOGRAPHY

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1. THE PROTAGONISTS: FOUR GENERATIONS OF GEOGRAPHERS

The breadth of the theme under discussion does not permit a systematic study as it deals with ideas which are both subjective and debatable. Conversely, the Spanish Contribution to the XXVII Congress of the International Geographical Union, (*Geografía en España (1970-1990)* R.S.G. and A.G.E., 1992) constitutes a very thorough publication on research in Spanish geography, well conceived and which, *mutatis mutandis*, has helped (it has helped me a great deal) as an information source for these reflections.

On the other hand it would be useful if we specify what we understand with «recent», and take the opportunity to characterise the last four generations of Spanish geographers. Thus effectively identifying the protagonists of geographic research in Spain.

The first generation was formed before the civil war (1936-1939) and reached maturity before or around the middle of the century. The members of this generation have become the «*maestros*», the authorities or masters of current Spanish geography. Amongst them Solé Sabaris, Terán and Casas Torres together and individually have formed well established schools of physical and human geography. This generation of geographers somehow linked with the geography from before the war, and connecting with the European geographic movement created a solid basis for the succeeding generation.

This next generation has been given the title *Geographers of the 50's* (RODRÍGUEZ ESTEBAN, 1995), because generally this group formed around this decade, reaching maturity between 1965-1975. Some twenty or so important geographers formed this generation, such as Llobet, Bosque, Cabo, Ferrer, Floristán, García Fernández, López Gómez, Vilá. From the research point of view they consolidated geographic research in many universities, although generally without much specialisation but with humanistic and open minds and a

tremendous amount of work. They established the discipline on a scientific footing and left behind them immortal works, of which the regional monographs are outstanding. It was a genre cultivated with great care and skill.

This generation, through some of its most illustrious members and the original authorities - Rosselló, Quirós, Martínez de Pisón, Capel etc., linked with the succeeding generation during the seventies. Having now reached maturity, this third group is today directing the academic and scientific orientation of Spanish geography. It has now, as we shall see, been given the task of guiding the furious growth of the discipline. Whereby it must tackle an ineluctable movement of specialisation and methodological transformation within Spanish geography, reorganise new curricula and promote scientific relations with international geography.

And lastly, the followers of the previous group have swelled the ranks of the many hundreds of young geographers, the protagonists of the present moment. In accordance with their academic and scientific work I would distinguish between those who have obtained teaching posts and degrees according to the prevailing regulations, and those who, between uncertainty and unemployment, are assistants, grant-holders and co-workers, etc.

The «recent» in our title should, then, embrace the last two completely active generations. Although reference to the first generation and to the «geographers of the 50's» is unavoidable.

2. GEOGRAPHICAL RESEARCH IN THE CONTEXT OF THE RECENT EVOLUTION IN SPANISH GEOGRAPHY

In this evolution three periods are worthy of mention. In each period the Spanish university in general, geography as an academic discipline, and research have behaved in different ways (LÓPEZ ONTIVEROS, 1992).

The first period, from 1940 to new the syllabus in 1973, presented a strongly centralised university education with very little expansion - although this trend varied between the start and the end of the period. As such as part of the Faculty of Philosophy and in the «Geography and History» degree, geography only contributed to three subjects.

The creation of the Higher Council of Scientific Research (CSIC) in 1940 was significant for research purposes. Geography had a specific place in this organisation in the Juan Sebastián Elcano Institute and in the Institute of Applied Geography. Without doubt the CSIC was a «source of university lecturers and the institution where the majority of these were completed» between 1940 and 1970 as well as the initiator of the periodical «Estudios Geográficos» (MARTIN LOU, 1992). Six more such periodicals were added during this period.

On the eve of the new syllabus of 1973 CAPEL (1976) characterised this research as a «discipline modest in teaching and research», whose «level had not yet reached that of other national schools with a longer tradition». The dominant ideas were those of the French school «both from the point of view of the general conception of the discipline and with reference to methods and techniques». The influence of the French school brought about «the general acceptance of geography as a science of synthesis and in the primacy given to local and regional studies», the great influence of history on the discipline, the use of empirical and deductive methods and a lack of theoretical thought.

I opt for a more indulgent judgement of the research of this period emphasising that, after a recent evaluation, the predominance of the regional focus (later so criticised) was not such a bad thing. I also point out that a tremendous amount of work was completed by the masters of the discipline, despite its assumed stagnation, which created much of what we call Geography today, as well as illustrating a clear desire of the then young geographers to overcome the mistakes of the previous generation. The work of those we call masters is fundamental to this period, and by its end the 50's generation were fully mature.

The second period is from the new syllabus of 1973 to the University Reform Law (*Ley de Reforma Universitaria* or L.R.U.) in 1983. In the general context of the Spanish university it is enough to say that its growth now is spectacular. As a consequence the Geography and History faculties were created by the General Law for Education (1970), with an added specialisation from the 1973 syllabus onwards. This syllabus included three years of courses common to all departments in the faculty, and a further two years of specialised courses. This degree of specialisation was also characterised in the doctoral courses. For the first time Spain had a geography degree which, although incomplete, follows the continental European model and which attained efficiency and distinction. Bosque calculated that, as a consequence of this, in Spain in 1979-80 there were 1500 students studying geography as a speciality, that 400 finished their degree in this subject, and that there were 268 university lecturers involved in its tuition (BOSQUE, 1981).

It is also important to highlight in this period, 1975, that the Association of Spanish Geographers, (*Asociación de Geógrafos Españoles* or A.G.E.), was created. This began at the IV Conference on Geography at Oviedo which, according to its statutes, existed, amongst other aims, for «the promotion and development of the Spanish geographic science» understanding this basic aim «to hold scientific meetings» and «the contribution to the greater understanding of our science» (CABO ALONSO AND OTHERS, 1992). The A.G.E. has, I believe, greatly aided the scientific development of Geography.

According to BOSQUE (1981) this is the situation of Geography around this year. «In a short space of time scientific geography in Spain has experienced an important development»; «none of the sciences which can be considered as its immediate rivals - sociology, ethnology, anthropology - have reached a similar level... However according to its content, its objectives and to its problems Spanish geography does not seem able to maintain a similar level to that of the science in France, in Anglo-Saxon countries, or in Italy or Germany».

The last period, which we consider in the evolution of our science, is that which runs from the L.R.U. of 1983 to the present moment. We believe that the following principles, now made law and academic-institutional, without doubt influenced and determined the future of our research. One of the most important was the L.R.U. which established a university system whose key was the autonomous university. This did not only mean freedom in teaching and research but also the authority for self-government. Its main virtue was to take the following key decisions for Spanish geography and research.

- 1°. Three study areas were recognised - Physical Geography, Human Geography and Regional Geographic Analysis - thus originating the division between the first two and the almost absolute specialisation of the researchers, with few exceptions. In the

area of Regional Geographic Analysis the effects of this have been much more ambiguous and less divisive.

- 2°. For the first time in Spain a complete degree course in Geography has been created which recognises its genuinely independent character as well as its personality within the scientific universe. On the other hand, in the curricular organisation of the degree the dominant trend was clearly biased towards applied and practical geography. This went a long way to determine research unconnected with the humanistic and particularly the historical context which has been so important in Spanish geography. As with geography, the percentage of truncated and common subjects in universities is low. This could be the cause, together with other factors, of the dispersion and lack of coordination in research topics.
- 3°. The doctoral programmes (or *tercer ciclo*) were also restructured. At the moment the relationship that could exist between both the doctoral programmes and national and autonomous region's research plans, and between these and specific research projects, is not known. But there is no doubt that each one will be a stimulus for the other.
- 4°. The academic system established by the L.R.U. has allowed all the university teaching staff to become state employees and has greatly reduced its average age; something which without doubt constitutes a great achievement for research. But this, together with a disputed selection system, caused a decline in quality which, coinciding with the economic crisis, has blocked almost all access for young people to the university. Furthermore, because a body of permanent researchers has not been created - and even with the existence of geography in the C.S.I.C. where it has lost its independence (MARTIN LOU, 1992) - research both in general and in geography has reached the most serious bottle-neck imaginable. This is impeding its reorganisation and, as in other sectors, has made opportunities for employment precarious, and at best quite casual and informal (LÓPEZ ONTIVEROS, 1992).

Despite this, the growth in Spanish geography and research has been fabulous in this period: a science with its own degree in the process of being established in most universities and which has proliferated exceedingly; tens of geography departments; the number of doctors and completed theses since 1973 can be counted in their hundreds, and graduates in thousands; innumerable research projects and groups; more than a score of geographic magazines; a dozen working groups from the A.G.E. which hold conferences and publish internationally, etc. When the 50's generation definitively reach their twilight years, and when the third generation is mature, the many professionally well established «young» geographers will benefit from this surprising growth.

3. SOME GENERAL CHARACTERISTICS OF GEOGRAPHIC RESEARCH IN SPAIN

But this growth in Spanish geography has been disorganised and chaotic, which could be the main reason why the main positive characteristics of our research always present correlative problems and defects. We can examine some of these characteristics.

Concerning epistemology and methodology I believe that GÓMEZ MENDOZA AND MOLLA (1992) are right when, respecting the Spanish school of geography over the past

fifty years, they affirm that «the revision which has been effected is, so far, too incomplete and fragmented and its interpretation too general». Even over the past few years the difficulty has been more evident since «the investigation into the reception of the new geography, which took place at the end of the seventies, has until now been conducted, above all, via bibliometric analysis» and description (ALBET MAS and OTHERS, 1992 and GARCÍA RAMÓN, M^a D. and OTHERS, 1992). This is insufficient to effect an evaluation of these topics.

But in a very general way it is perhaps possible to say that the thematic specialisation and tuition has led to a change in mainly regional studies. Thus: «to an acceptance and continuation of theories originating in the natural and social sciences, with a pronounced influence of empiricism in a framework of neopositivism. Together with the scholarly traditions, of an ideographic or historical nature, conceptual trends and diverse methodologies coexist along with many other more recent, modern and postmodern, trends» (HERNANDO RICA, 1992). Without doubt this fact can be considered as enriching and amounts to a positive step forward. But there are some of the corresponding limitations. With such a provisional situation, originating from the institutional and legislative changes, one can appreciate the lack of coordination between teaching and research; the lack of adaptation between research and the doctoral programmes and even the geographic subject areas; the predominance of individual research over that of efficient group-work; and the consideration as specialists or «specialised contributions» of what is no more than a sporadic hobby or an occasional dilettantism without much methodological rigour.

Geographic research, in another aspect, owes much to the prevailing trend of applied geography. Mainly through its contact with the Administration and with Planning where many researchers have collaborated and have made a clear success in this respect within the present geography degree. All of this is equally laudable and enriching. But one has to be aware of a danger: sometimes what one wishes to pass off as research is merely application pure and simple. One must distinguish between such qualitatively different products, especially when such applied studies become merely a repetitive formula, which seem to be produced prodigiously by so many professionals allied to geographers.

In relation to the scale of the research, it is known that local studies predominated at the beginning of what is currently Spanish geography. Today we have evidence of the predominance of the regional scale, above all at the level of the Autonomous Regions, established by the present Constitution. Although there are many causes of this resurgence of regional analysis as SÁENZ LORITE (1992) reminds us, at the same time it is evident that geographic research on Spain at a national scale is much more scarce. Research on foreign countries (including the European Union) is also quite unusual, with the exception, perhaps, of research relating to Latin America - probably due to the common language. Without doubt this limitation is highly significant of an incapacity for high risk work on broader scale, of the limited international integration of Spanish Geography, and of its relative handicap when compared to other allied disciplines, like Economics, which impinge on extra-regional and even international space.

Lastly, in relation to existing geographic research, I consider the quality, with some important exceptions, of text books, essays and reference books which have proliferated recently, to be unsatisfactory in general. Only very occasionally do these manage to summarise, and take serious account of what the authors have researched in doctoral theses and

published in scientific magazines. Nor have such deficiencies been overcome in the existing text-books on Spanish geography written by foreign geographers. Neither the directors nor the editors of these publications have used adequate quality control methods.

4. SPECIALITIES IN GEOGRAPHIC RESEARCH: CURRENT SITUATION AND TRENDS

For general reasons of the evolution of scientific knowledge and specific geographic and academic-institutional reasons, the appearance and consolidation of specialisation in geography is irreversible. This is illustrated in the dichotomous and sometimes conflicting pair of subjects: Physical Geography versus Human Geography. For many reasons the fifties generation, including some of its more important representatives were much less specialised. They could not be so within the context of a generalised and quite imprecise subject title like *Geography and History*.

Also the close relationship between geography and naturalism, from the end of the nineteenth century to the civil war (GÓMEZ MENDOZA and ORTEGA CANTERO (Direct), 1992 and GÓMEZ MENDOZA and OTHERS, 1995), which also demonstrated significant revelations much later (VILÁ VALENTÍ, 1992 in TERÁN, vol.I, 1951 and vol.II, 1954), gave rise to the unity of the science of geography and equally the promising culmination of natural knowledge in one geography. But the successive independence gained by each of the earth and social sciences contributed to the break up into different branches the co-relative parts of geography. However, at the present moment, in Spanish geography not only are there feelings of nostalgia for the lost unity for professional, scientific and identity reasons, but also more vigorous trends, for example the study of the landscape, the geography of risk, the organisation of territory and environment. These necessitate the reconciliation and support amongst the various branches of physical and human geography (MARTÍNEZ DE PISÓN, 1992, MATEU BELLÉS, 1992 and BOLOS CAPDEVILA, 1992).

Despite this the analysis which continues in the geographic specialisations is necessarily structured, divided into Physical and Human Geography. And is considered as such in both the more basic and traditional research as well as in the new approaches and current trends.

5. THE BRANCHES OF PHYSICAL GEOGRAPHY

We can begin to describe the evolution of geomorphology in Spain (MUÑOZ JIMÉNEZ, 1984 and 1988 and MARTÍNEZ DE PISÓN, 1992 AND 1995), so that even a non-specialist as I could grasp the general direction of this essential geographic specialisation. It stems from recent vigorous antecedents - the physiographic and naturalistic stage of the nineteenth and early twentieth centuries, the cyclical Davisian hypothesis, represented, amongst others, by Carandell (LÓPEZ ONTIVEROS, 1995). The work of Solé Sabarís is fundamental for an understanding of the present development of our geomorphology (MARTÍNEZ DE PISÓN, 1992 on SOLE SABARIS and LLOPIS LLADO, 1951). The core is today formed, above all, by García Fernández, Rosselló and Martínez de Pisón (for non geographic reasons the Zaragoza school is without its masters Mensua and Ibañez). The outstanding features of this group are their personal and academic geomorphological research, their humanistic spirit and culture which has preserved in them other geographic

ambitions, and their leading role in the whole of Spanish geography. Within or on the margins of the aforementioned schools there is a scientific conflict between a structuralist and a climatological trend. To which in other cases one must add connections with applied geography and the environment.

Climatology is also beginning to demonstrate a useful degree of synthesis (MUÑOZ JIMÉNEZ, 1984, ALBENTOSA SÁNCHEZ, 1987 and LÓPEZ GÓMEZ and OTHERS, 1992) clearly embodying the stimuli provided by López Gomez and by other younger developers like Gil Olcina, Albentosa and Martin Vide. It has satisfactorily emerged from its initial state of separation and is evolving towards a more synoptic and quantitative, or new, Climatology. Because of its enormous utility in humanistic fields the significant work on urban climates and the development in Agro-climatology, on the basis of the Papadakis methodology, has to be highlighted. This latter was above all the work of non geographers Elía Castillo and Ruiz Beltrán.

Biogeography in Physical Geography as a whole has a strictly botanical background. It seems to be rather falling behind, being based mainly on phytogeography and hardly having developed from zoogeography, but is a good illustration of the importance to Spanish human geography of the Spanish geography of hunting or cinegética. RUBIO AND OTHERS (1992) have mentioned groups of bio-geographers in Barcelona, Madrid, Canary Islands, Seville and Granada.

Despite the splendid work of MASACHS ALAVEDRA (1948 and 1954) Spanish *hydrology* has not had much continuity in geography recently. Lately, however, one must take into account important derivations of hydrological and hydraulical subjects, mentioned in both rural geography and the geography of risk, as well as individual work, like that of L. DEL MORAL (1991).

6. ESSENTIAL RESEARCH IN HUMAN GEOGRAPHY

This research topic is comprised of the more classical specialisations, namely: rural geography, population geography, urban geography, industrial geography and geography of services. We will examine these in the first place, and then move on to mention briefly the new approaches.

With respect to *rural geography*, our first assertion is that «no-one would seriously argue that the rural theme has made one of the more productive and valuable contributions of Spanish geography» (GIL OLCINA, 1992). This is derived from a number of causes that all Spanish geographers are familiar with, but it is also true that the rural world has progressively lost importance. What we can ask ourselves is whether this undervaluation has provoked the decline in rural geography.

Around the time of the civil war and immediately afterwards the contributions of Dantín and Carandell were significant. They were followed by Casas and Téran who produced important agrarian work but above all forged great agrarian researchers. The first was Floristán, and the second were Cabo, López Gómez and García Fernández. The thesis and work of Llobet was important. These various generations of geographers are very different, but to them we can attribute a common denomination: the regional monograph is the basic methodological instrument in which they study agrarian accomplishments.

The aforementioned authorities, or rather their followers in the 1960's and the start of the

1970's continued predominantly this rural research. We can outline their work in the following groups: Madrid, where Terán supervised theses of Quirós, Zulueta, Ortega Cantero and Gómez Mendoza; Valencia, where López Gómez and Rosselló directed the research of Gil Olcina, Morales, López Ontiveros, Cano, Burriel, etc.; Valladolid where García Fernández worked with his students Ortega Valcárcel, Peña, Molinero etc. and in Granada where Bosque worked also with his group, Ocaña, Ortega Alba and Sáenz Lorite. Without doubt these groups are neither independent nor do they break with the regional concept. But methodological evolution exists and the profound variations in this distinguishes each group (MATA OLMO, 1987).

From this moment, when the «50's generation» are almost finished, and until the time when rural investigation becomes diversified and specialised thematically, we can outline, with GIL OLCINA (1992), its main contributions in the following way:

- 1º. Handling and criticism of past and present source documents, such that in many cases it was the geographers who were the first to discover and use them (Cabo, Quirós, Gil Olcina, López Ontiveros, Camarero, Arroyo, Mata, etc.).
- 2º. Evolution of livestock breeding (Cabo, Torres Luna, Pérez Iglesias, Valle Buenestado) and cultivation. These constituted the key to agrarian studies for a long period.
- 3º. Land ownership and tenancy regulations. This subject is studied at various crucial conferences, as well as by many consummate specialists and work groups (A.G.E., 1980, GIL OLCINA, 1981 and CANO, 1987).
- 4º. Irrigation and other hydraulic developments such as the ownership and control of perennial water supplies. Outstanding in this field are the pioneer López Gómez and the groups from Valencia, Murcia and Alicante where GIL OLCINA and MORALES GIL (coord.) (1992 and 1995) have recently organised two excellent conferences.
- 5º. Population and rural habitats have been the object of numerous studies since Casas and Terán, until the present moment with renewed studies by Suárez Japón, Pazo and Florido.
- 6º. Spanish rural geography is also a reliable witness of the half century of agrarian change in Spain - the most spectacular in its history (GIL OLCINA and MORALES GIL, 1993). By reading publications in this subject one can get to know and interpret the transition from an under-developed field to another technologically sophisticated and dependent upon the decisions of the C.A.P.

Lastly, despite the severe causes which have impeded the relative economic importance of agrarian themes, it is not clear whether this is going to imply a decline in rural geography since it is being renewed in the following ways - also explored in other branches of geography:

- a) Study of the rural-urban continuum and of peri-urban zones (GARCÍA MANRIQUE and GÓMEZ MORENO, 1992 and the IX CONFERENCE ON GEOGRAPHY, 1986).
- b) The study of mountainous areas is one of the most popular fields in both physical and human geography (CABERO DIÉGUEZ, MAJORAL MOLINE and RODRÍGUEZ

MARTÍNEZ, 1992). Analysis in forrested areas is worthy of special mention, with contributions from universities Autónoma de Madrid (GÓMEZ MENDOZA, 1992, GÓMEZ MENDOZA and ORTEGA CANTERO, 1992 and A.G.E., 1991) and Alicante (MONTIEL MOLINA, 1995 and 1995).

- c) Leisure activities in the rural environment (MULERO, 1995). Amongst these hunting is most well-known in Spain, as a good deal of the mountainous environment in Spain is dedicated almost exclusively to this activity (LÓPEZ ONTIVEROS, 1992, 1994 and 1992, LÓPEZ ONTIVEROS and VALLE BUENESTADO, 1987, AGRICULTURA y SOCIEDAD, 58, 1991 and A.G.E., 1992).
- d) And several others, which include the relations between rural space and the C.A.P. (refer to several papers in Actas de A.G.E., 1994) and the preference which the Geography of Gender has for the analysis of the woman's role in rural environments (SABATE and TULLA, 1992).

As we mentioned there has been a great deal of research into *population geography*. Specialists who stand out in this research began with Barceló and continue with Burriel, Puyol, Vidal, Gozávez, Martín Ruiz etc. In my opinion in this branch of geography it is worth emphasising three basic facts: geodemography in Spain has been treated like a school of demographers since the discipline of demography has not been clearly accepted into other degree subjects (VIDAL BENDITO, 1992); population studies refer to all possible themes within this specialty but at a geographic level, and one must emphasise that its testimony is very valuable in order to grasp the unparalleled importance of the growth and rearrangement of the Spanish population over the last half century; the population group within the A.G.E. is a model of fine work and dynamism.

With respect to research on urban geography, which without doubt is another consolidated specialism thriving at the moment, we can distinguish two important groups: firstly the analysis of cities as isolated entities and of their features, and secondly that of their understanding within the urban system. In the first group one can find classic research in the style of the French school inspired by new trends of an Anglo-Saxon character, as well as monographs on cities along with sectoral themes like transport, districts and other specific areas, aspects of the quality of life etc. It is as well to emphasise the many singular analyses of the historic centres in Spain which has furnished us with quite brilliant research. Work by Campesino, Más, Troitiño, Vilagrasa and Zoido stands out amongst the great volume on this subject.

Inasmuch as the urban system has been researched through the historical formation of urban settlements, functional specialisation and classification of cities, levels of urban and economic hierarchy etc. Ferrer, Murcia and Precado have been outstanding in these lines of research and in their corresponding synthesis (CAMPESINO FERNÁNDEZ, 1992 and FERRER REGALES and PRECEDO LEDO, 1992).

The more recent expansion has been in industrial geography which is today characterised by the dynamism in the work of specialists like Manero, Méndez and Caravaca (MANUEL MIGUEL, 1992 and MÉNDEZ, 1992). According to these authors one can summarise the recent evolution of this specialism in three lines of work: studies of sectors which are generally out of use today; local spacial studies, but above all regional and less national (to which one must add some significant studies on specific factories which provoke a strong

spacial impact); and the analysis of industrial change (crisis, technological innovation, re-industrialisation and re-structuring and its spacial effects etc.). Also as advice MOLINA IBÁÑEZ (1992) states that one must not omit, and thus must include in this specialism, work on sources of energy and primary material which, although there are few, some are significant.

In what is referred to as the geography of the services we will first of all try to combine the main groups of themes in which there is significant research:

- 1°. Geography of tourism and leisure, which according to VALENZUELA RUBIO and OTHERS (1992) is a specialism which arrived late to Spanish geography. Its production is not homogenous with that of other countries and despite its growth in the last few years the results of this research compare poorly with the social and economic importance of the Spanish tourist sector. The scientific results here are divided between monographs on specialised areas and sectoral themes, distinguishing between tourism in coastal, rural, natural, mountainous, urban and peri-urban spaces, not to mention other themes such as tourism and regional development, new tourist products etc. In this research specialists like Valenzuela, Vera, López Palomeque, Marchena stand out.
- 2°. Transport geography has evolved unevenly: a large and dynamic group working on ports and maritime transport (Barragán); good isolated contributions on air transport (Cano); but setbacks in road transport study, including very little on rail links. A similar evaluation is relevant to other, more incipient aspects of the specialism, like methods and techniques; transport and regional planning; spheres of influence and urban traffic (CANO GARCÍA, 1992).
- 3°. Commercial geography has valuable origins in maps of markets and fairs, some chapters of regional theses and above all, although not done by geographers, the Commercial Atlas of Spain and the Yearbook of the Spanish Market by Banesto. But today it is not a particularly well developed specialism, although the work of Bielza and Escalano should be highlighted (BIELZA DE ORY, 1992).
- 4°. In relation to geography of services and equipment, although lacking research as a whole, one must not forget the contributions on university activity and on the regional sphere of influence of certain universities (García Zarza, Suárez-Quirós, Tatjer); on education services and equipment, and on medical geography (Olivera); on administrative services, etc (LÓPEZ TRIGAL, 1992).

But although some of the aforementioned research is quite solid, my main observation with regard to geography of services is that there has been no general thought over its importance in the whole of Spain. A country, as in other developed nations, in a period of intense tertiarisation. The reasons for this deficiency, amongst others, are: the difficulty of the subject, especially methodologically; the dispersal, number and ambiguity of the «services»; the profusion and uncoordination of statistics, especially poor in this sector; and the intense transformation which is affecting the services. More specifically, in the geography of services there has been very little work on the impact of new technology in Spain. Especially in the subsector of information technology, which has in many ways defined the era. There has also been a deficiency in relating these new technologies with other economic sectors and with their spacial effects.

7. HISTORICAL GEOGRAPHY, THE HISTORY OF GEOGRAPHY AND NEW APPROACHES IN SPANISH GEOGRAPHY

Analysing the more essential and long-standing aspects of Spanish geographical research I now see fit to express that, in my opinion, there has been a debate between different trends in Spanish geography. That is to say, between a tendency towards historicism, originating not only from influences stemming from its incorporation into the «History and Geography» degree course, but also as a requirement of arising from an old country like Spain, fashioned throughout centuries of existence. And the tendency towards modernisation brought about by new trends, sometimes past but always present, and which are today quite overwhelming.

In relation to Spanish historical geography, ARROYO ILERA and CAMERARO BULLÓN (1992) have written intelligently on its traditions and importance, on its origins in French geography, and on its frequent appearance as a «historical introduction» in regional monographs. They have also explained its thematic principles: handling and criticism of source documents, as we saw with rural geography; the origin and evolution of crops and the structure of ownership; hydrology and risk; the history of population; urban evolution and, presently, the perception of environmental aspects. Many authors could be cited here but I choose to mention only those from the 50's generation and their immediate followers who have written outstanding work on Historical geography: Cabo, Floristán, García Fernández, López Gómez, Rosselló, Quirós, etc.

Together with historical geography, sometimes as a manifestation of it and sometimes not, research on the history of geography, principally Spanish, has been significant. With GÓMEZ MENDOZA and MOLLA (1992) we can distinguish three groups in this respect: the Capel and García Ramón-Nogué group in Barcelona; the Gómez Mendoza and Ortega Cantero group in the Madrid Autónoma University; and the individual work of many geographers (Vilá, Rosselló, Quirós, Bosque, López Ontiveros, Muñoz amongst others). The Barcelona groups have carried out research from a more sociological approach and more bibliometric in character to «determine the institutional structure and the processes of recruitment and selection» of the geographic scientific community. The U.A.M. group work in a more «internalist» way, attempting to reconstruct «the genealogy of the concepts» and the «epistemological attitudes».

I believe that the existing studies permit us to know something - sometimes significant, sometimes not - about the pre-scientific geography of the eighteenth century; about the origins of modern geography and its relationship with naturalist, forestry and agrarian thought; on the role of the Professional Teaching Association (Institución Libre de Enseñanza) the Royal Geographic Association (Real Sociedad Geográfica) (RODRÍGUEZ ESTEBAN, 1994) in their origins; on the strong conviction that pre-civil war geography was on a scientific basis; on the French influence on postwar Spanish geography etc. Unfortunately there are no systematic studies on more recent Spanish geography.

Complementary to this ever present influence from historicism in Spanish geography exists the profound and sometimes difficult aspiration of methodological and thematic renewal. I believe that in this second aspect, according to the R.S.G. and A.G.E. (1992) with some additions, it is worth describing the following new approaches in current Spanish geography:

- 1°. New techniques of geographical research (G.I.S., Automated Cartography, Remote Sensing) which our geography is incorporating, although perhaps not as promptly or as widely as it should, in the more significant groups, which are: the National Geographic Institute (Instituto Geográfico Nacional); the Geography departments at the universities of Alcalá de Henares (Sancho Comins, Cebrián, Chuvieco) and of Malaga (Garcia Manrique and Ocaña); the Environmental Agency of the Andalusian Regional Government (Moreira); and the Cartographic Service of the U.A.M. (Espia-go) (OCAÑA OCAÑA and OTHERS, 1992).
- 2°. Quantitative geography, according to BOSQUE SENDRA and OTHERS (1992) has had a long period of introduction and development in Spain, but seemingly with difficulties and limitations: a predominance of fundamental and classical statistics, only embryonic modelling, and poor software production which is unbalanced regarding the different branches of geography to which it is applied. Without doubt the poor training of geographers in mathematics, statistics and in technique in general is the main reason for this. The Quantitative Geography Group in the A.G.E. are worth highlighting, its pioneers are Bosque Sendra, Moreno, Rodríguez, Santos, etc.
- 3°. Political geography, in my opinion, presents rather unstable lines of research in Spain today, in that many of the themes which are normally included (BOSQUE MAUREL, 1992) have either only been developed in circumstantial research or would be better considered as themes of Regional Geography (political-administrative organisation). The theoretical work of J.E. Sánchez, however, is worthy of mention, as is the work in electoral geography of Bosque Sendra and the research of Suárez de Vivero on maritime space.
- 4°. The geography of risk, includes some excellent work, due to the economic and social importance of such risks, above all on the Mediterranean shoreline. Mainly because this area is where the main developers in the study of floods are to be found: Mateu in Valencia, Gil Olcina, Morales and Olcina Cantos in Alicante, Calvo in Murcia. In the study of the other great risk in the peninsula, drought, Pita stands out (MATEU BELLES, 1992).
- 5°. The Geography of gender began in the 1980's and includes enthusiastic research of quite a few groups whose contribution, it has been said, has been concentrated, with great preference, in the rural world. Sabaté in Madrid and Garcia Ramón in the U.A.B. are its most illustrious representatives (SABATE and TULLA, 1992).
- 6°. In a good summary ORTEGA CANTERO (1992) outlined the main features and relative orientations of the research on *literature and geography*. These studies refer, above all, to Spain in its natural and human state. Sources include the literature from the journeys of the Enlightenment period, the Romantic period, the «Regeneracionismo» period, the Generation of 98, and present literature. Various publications of García Fernández, Martínez de Pisón, Capel, López Ontiveros, Ortega Cantero, Nogué, etc. are worth highlighting in this respect.
- 7°. Perceptive geography, although not very developed, has been publishing timely and informative investigations from the 1970's, but including little empirical research (ESTEBANEZ ÁLVAREZ, 1992).
- 8°. Landscape studies have, without doubt, received a significant stimulus from agronomists and forestry experts. However the geographic research in this discipline is not

negligible, for example: some excellent doctoral theses, from the universities, U.A.M., Granada, Las Palmas, Barcelona, Seville; textbooks, like that of BOLOS (1992); and papers of variable quality.

- 9°. The work of *physical planning* (Town and Regional Planning), despite having important antecedents, only really started to become developed in relation to corporations of the municipal and regional governments, after the Constitution of 1978. Achievements in Andalusia, Asturias and Canary Islands, Catalonia, Galicia, Madrid and Navarra, completed by Zoido, Morales, Nelo, Precedo, Troitiño and Ferrer respectively, have been exceptional.

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