

HUMAN GEOGRAPHY AS SOCIAL SCIENCE: RETROSPECT AND PROSPECT<sup>1)</sup>

With 4 figures

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*Zusammenfassung:* Anthropogeographie als Sozialwissenschaft: Rückblicke und Aussichten

Im Dezember 2002, anlässlich des 50. Jahrestages seiner Gründung, lud der International Social Science Council (ISSC) ein, um über die erreichten Fortschritte und die mit dem Beginn des neuen Jahrtausends einhergehenden Herausforderungen Bilanz zu ziehen. Schon das Jahr 1952 stellte eine dramatische Zäsur für zahlreiche Wissenschaftsfelder dar: neue Disziplinen wurden entworfen und bereits bestehende wurden mit neuer Bedeutung versehen, während Fortschritte in Technik und Analysemethoden moderne Türen zum Verständnis der menschlichen Gesellschaft aufstießen. Zu dieser Zeit herrschte ein gewisser Optimismus, mit wissenschaftlichen Erkenntnissen zur Gestaltung der Nachkriegswelt beitragen zu können. Die Anthropogeographie befand sich nicht unter den Gründungsdisziplinen des ISSC, aber bereits in den 50er Jahren zeigten sich profunde Veränderungen in der disziplinären Praxis. Am augenfälligsten war die zunächst konzeptionelle und später institutionelle Trennung der beiden Untereinheiten Physio- und Anthropogeographie. In vielen Ländern wurden Anthropogeographen in der Folgezeit an die Fakultäten der Sozialwissenschaften angeschlossen und viele sollten freudig ihre Forschungen nach dem frischen paradigmatischen Wind ausrichten, der in der zweiten Hälfte des 20. Jahrhunderts durch die akademischen Hallen wehte.

*Summary:* Major re-orientations in practices of human geography during the second half of the twentieth century are outlined here in terms of four distinct stances assumed by scholars vis-à-vis their objects of study: (1) **observation**, the stance assumed by most geographers from the origins of this field as academic discipline to the 1950s, (2) **participation**, starting in the 1960s and reflecting an eagerness to demonstrate the relevance of geographical analyses for the elucidation and/or solution of social issues, (3) **interpretation**, from the mid-1970s on, reflecting an awareness of reflexivity and the need for dialogue, and (4) **representation**, inspired by modernist vs post-modernist tensions from the late 1980s on. At the dawn of a new millennium, the paper argues, the harvest of the previous decades yields perplexing questions. Increasing levels of functional specialisation in science throughout the 20c have led to problems of scholarly communication, mutual understanding and knowledge integration. Might recent advances in information technology mitigate or re-inforce these problems? The institutional separation of physical and human geography has also substantially weakened the discipline's capacity to comprehensively address environmental issues. And despite rapid rise in interdisciplinary global research programmes during the late twentieth century, too, environmental problems persist. Finally, while most major issues of geographical concern today transcend territorial boundaries, conventional practices of geography remain tightly shaped by national institutions. There is an emerging consensus, however, about one conclusion, i.e., that there are many "geographies", and multiple geographical knowledges, each embedded in and serving the interests of particular social contexts. A worthwhile goal today would be to promote dialogue among the diverse geographical knowledges and to assess their implications for humanity's modes of dwelling.

*1 Introduction*

Social sciences, it could be argued, were inventions of the twentieth century. In many countries, in fact, their institutionalisation as university disciplines only occurred during the latter half of that century. Throughout Europe and America at midcentury profound changes were witnessed in scholarly life: new disciplines were invented, new status ascribed to older ones, while advances in technology and analytical methods opened up fresh horizons for the understanding of human societies. There was a wave of optimistic zeal to render results of scientific research useful in the shaping of post-war worlds. In 1952 UNESCO established the International Social Science Council (ISSC) "to knit

together social science scholars of the world ... with the expectation that this will increase international understanding ... to raise the level of social science research in the belief that greater knowledge in these fields will benefit mankind ... to promote research in fields crucial to the establishment of a peaceful world order ..." (ANGELL 1950, 282, cited in PLATT 2002, 9).

<sup>1)</sup> An earlier version of this paper was presented at Plenary Session II "Advances in Social and Behavioural Science Disciplines" of the International Conference on Social Science and Social Policy in the 21<sup>st</sup> Century organised by the International Social Science Council in celebration of its 50<sup>th</sup> Anniversary in Vienna, 10 December 2002.

Human geography was not among the founding fields of ISSC, yet the early 1950s brought many changes in ideas and practices of the discipline. Chief among these was the growing conceptual rift and eventual institutional separation between the sub-fields of physical and human geography. In many countries human geographers were thereafter housed in faculties of social science and many sought to adapt their research to the changing paradigmatic winds which blew through the halls of academe during the latter half of the twentieth century.

For many geographers, the institutional divorce of “human” and “physical” branches of the field was felt as an emancipatory moment. Ghosts of environmental determinism and geo-political notions associated with Nazi times might now be banished. Focus on “space” and “locational analysis” rather than on societal relationships to environment as central core for the discipline led to a virtual emancipation from previous judgments by guardians of disciplinary orthodoxy, such as those of historical geography and geomorphology. Spatial analysis, methodologically following positivistic procedures and conceptually anchored in theories of neo-classical economics, launched human geography into a privileged position as a science which was seen as directly relevant for post-war reconstruction and regional development.

In retrospect this was later seen as somewhat of a Pyrrhic victory. Lost from view, at least for a few decades, were issues of environment, natural resources, ways of life. Issues of culture and history, philosophy, literature and other branches of the humanities also receded from the human geographer’s ken (SAMUELS 1971; BUTTIMER 1974). Only toward century’s close, when issues of global change, environment and sustainable development beckoned on the horizons of science and policy did geographers again begin to realise the implications of these earlier developments (KATES 1987; USNRC 1997).

To regard oneself as a “social scientist” did not necessarily mean that a geographer would be welcome among the burgeoning fields of academic social science. Prior to mid-century, in many countries, geography was actually the main scholarly field which studied questions of human behaviour, ways of life, society and environment. Newly established disciplines were naturally eager to carve out specific domains of exclusive competence. As functional specialisation gathered momentum with tax-based research funding from national ministries and Social Science Research Councils, human geographers found themselves often in situations of competition rather than of complementarity with social science colleagues who had become attuned

to “spatial” aspects of society and environment. At the dawn of this new millennium, it is not surprising that geographers now seek ways of transcending the barriers which separate knowledge fields within and without the discipline, eager to harvest the fruits of specialised research for better integrated understanding of humanity and Planet Earth (MESSERLI et al. 2000; UNESCO 2000).

## 2 *Twentieth century geography: retrospect and prospect*

Geography lies at the heart of scholarly traditions in many world civilisations, inviting enquiry into the nature of the universe and the dynamics of planet Earth, prompting exploration and adventure, the naming and claiming of territory, and theories about relationships between human societies and their environments. As an academic discipline and formal course in universities and schools, geography has acquired other histories, few uncontested. During its disciplinary period, geography has continued to mirror the fluctuating fortunes of nations and empires, fitting itself within nationally-defined structures of pedagogy and research, while also remaining attuned to changing trends of scientific thought and practice internationally. Tensions between scholarly integrity and the structural imperatives of disciplinary identity have at times led to an ignoring of the lived geographies of everyday life, and the contradictions which sometimes underlie taken-for-granted ways of life and designed environments.

At the dawn of a new century there is enhanced awareness of geographical diversity in humanity’s lived experience. Mountain and plain, river and lake, woodland and wildlife may be “explainable” in the categories of natural and social science, but in everyday life each cultural group understands nature, space, and time through its own special filters. To inhabit planet earth every creature has to develop a sense of place, space, time, and movement, i.e., geographical knowledges. To negotiate diverse geographies has surely been an enduring challenge of terrestrial existence, from the politics of empire to the arrangement of one’s kitchen, office, or front garden. It has also afforded rationale for an academic discipline called Geography in various Nation-States, and for varieties of “applied geography” down the centuries.

While the record of academic geography varies greatly in detail and circumstance throughout the world, the prospect today involves fresh challenges and opportunities. On the positive side one can note evidence, in a wide range of fields – literature, history, biology and engineering – of a “geographical sense”, an

acknowledgement that all human endeavour must be regarded in terms of its implications for Planet Earth. Thus today, as humanity grapples with challenges regarding global sustainability, the time seems right for geographers to press forward, welcoming opportunities for collaboration with colleagues in a wide variety of fields. A fundamental dilemma, however, remains. While environmental issues transcend territorial and political boundaries, taken-for-granted practices of science remain firmly ensconced within national institutions. Facing this Third Millennium, geographers all over the world need to collaborate more effectively in confronting these challenges.

### 3 Geographical exploration: from observation to representation

The twentieth century bequeathed many profound transformations in practices of geography. Accounts on these trends, reflective no doubt of the narrator's preoccupations, reveal quite as much about the social contexts of such changes as they do about the epistemological claims of a scholarly field called Geography (STODDART 1981; JOHNSTON 1983; BUTTIMER 1993). At century's end, post-modernist moods favoured multiple interpretations and there was widespread scepticism about generalisations (HARAWAY 1976; OLSSON 1979; DUNCAN 1980; SOJA 1989). Often it seemed that substantive content took second place to critique on ways of seeing, ways of practice. Contextual approaches facilitated more nuanced interpretations of intellectual history. For some indeed science as a whole could be regarded as historically-situated knowledges (HOLT-JENSEN 1981; LIVINGSTONE 1994). Synergies operative within science and society at particular moments are surely important. It is also instructive to seek insight into general changes over time. At the risk of over generalisation, let me suggest a four-phase narrative on changing stances, from observation to participation, to interpretation, to representation<sup>2</sup>.

In the early periods of discipline-formation, geographers prided themselves on their skills in observation and cartographic representation of reality (Fig. 1). Such impressions were still expressed at mid-century

(TAYLOR 1951; JAMES a. JONES 1954; Johnston 1983; CLAVAL 1984). From its beginnings as academic discipline, geography proved to be a valuable training ground for the exploration, understanding, and conquest of space and resources; for the imposition of order deemed rational by managerial authorities; for information on areas, distances, flora and fauna, peoples and cultures, in language categories and narrative frames understandable "back home" (HARVEY 1984; BUTTIMER 1983, 1993). Geographical knowledge was regarded as objective, anchored on epistemological foundations (HARTSHORNE 1959; BUNGE 1962; US NATIONAL ACADEMY OF SCIENCES 1965).

Throughout history, of course, there have been varieties of practice, pioneers and mavericks, scholars who followed routine paradigmatic lines, and those who deliberately sought alternatives. Some were more aware than others of differences among cultures and ways of life. Debates over "environmental determinism", "genetic explanation", relationships between physical and human geography abounded particularly during the early twentieth century.

After the mid-century European "World War" and the de-colonisation of former empires, a new wave of spatial science swept through university curricula. Human geographers claimed status as social scientists, with particular competence on spatial aspects of phenomena, events, patterns and processes (ULLMAN 1954; ISARD et al. 1960; HAGGETT 1965; BERRY 1964). With growing self-confidence, too, there came a heightened awareness of differences in perceptions of reality and the geographical sources of interest conflicts: elite vs popular, managerial vs consumer, invader vs native, in access to space and resources (LYNCH 1960; LOWEN-

Fig. 1: Geography as observation

Geography als Beobachtung	
From its institutionalisation as "discipline" to mid-20 <sup>th</sup> century	
PRACTICES	Exploration Inventory Mapping
INTERESTS	National/Imperial Commercial Military
KNOWLEDGE	Foundational Objective Theory and Laws
EVALUATION	Epistemology

<sup>2</sup> This tabular summary does not imply, of course, that changes over time in these various knowledge interests followed a strictly chronological sequence; they unfolded at different moments and varied considerably from one country to another. This paper builds upon a previously published essay on changing "states-of-the-art" in the practice of geography (BUTTIMER 1998).

THAL 1961; BLAUT 1970; HÄGERSTRAND 1970; BUTTIMER 1972). More and more geographers recognised themselves as “participants” quite as much as “observers” (Fig. 2). Much energy was invested in developing “qualitative” research methods including those of “participant-observation” (ROWLES 1978; LEY a. SAMUELS 1978; ROSE 1993; BUTTIMER a. SEAMON 1980).

Knowledge was now seen as “subjective”, reflecting the social worlds within which it had been produced (FOUCAULT 1966; BERGER a. LUCKMANN 1967; BOWDEN a. LOWENTHAL 1975; BERQUE 1982). Truth claims were no longer to be presented in exclusively epistemological terms, i.e., in terms of their respective logics of

enquiry, analysis and proof. The fertile idea of “paradigm” took wing on the premise that social context exercised a determining influence on processes of knowledge production (KUHN 1970; SCHÜTZ a. LUCKMANN 1973; LEFÈBVRE 1974). During the late 1960s a substantial literature revealed manifold ways whereby the nexus of power and knowledge legitimised certain practices and suppressed others (BERNAL 1965; SANTOS 1975; BOURDIEU 1977). One enduring impact of THOMAS KUHN’s *Theory of Scientific Revolutions* (1962) was the shift of focus from epistemological to social evaluations of knowledge itself. And a corollary was that truth claims should be negotiated dialectically. In courses and seminars on history and philosophy of geography, insights from sociology seemed quite as important as those from analytical philosophy (FERRIER, RACINE a. RAFFESTIN 1978; CAPEL 1981; GRANÖ 1981; JOHNSTON 1983).

By the seventies an awareness grew that observers, in fact, were participants in the research process. A new agenda now dawned: how to negotiate various interpretations of events, patterns and processes (HABERMAS 1968; GADAMER 1965; RICOEUR 1971). Structuralist strains of the late 1960s and throughout the 1970s, by laying emphasis on processes of knowledge production, at times resonated with strains from the humanities proclaiming “death to the author” (DERRIDA 1972; RORTY 1979). The combined result was a shaky consensus that focus should rest on *texts* themselves as social products emerging from particular *contexts* (Fig. 3). Beginning with the French *nouveaux philosophes*, translated and re-interpreted later in Anglo-American literary circles, there were claims that one had already reached

Fig. 2: *From observation to participation*  
Von der Beobachtung zur Teilnahme

	1960s	1970s
	OBSERVATION	PARTICIPATION
PRACTICES	Exploration Inventory Mapping	Insider/outsider Advocacy Modelling
INTERESTS	National/Imperial Commercial Military	Social justice Equality Reformation
KNOWLEDGE	Foundational Objective Theory and Laws	Dialectical Subjective Paradigms
EVALUATION	Epistemology	Sociology

Fig. 3: *Observation – Participation – Interpretation*  
Beobachtung – Teilnahme – Interpretation

	1960s	1970s	1980s
	OBSERVATION	PARTICIPATION	INTERPRETATION
PRACTICES	Exploration Inventory Mapping	Insider/outsider Advocacy Modelling	Texts/contexts Deconstruction Language
INTERESTS	National/Imperial Commercial Military	Social justice Equality Reformation	Social construction Power and knowledge <i>Habitus</i>
KNOWLEDGE	Foundational Objective Theory and Laws	Dialectical Subjective Paradigms	Post-foundational Intersubjective Metaphor
EVALUATION	Epistemology	Sociology	Hermeneutics

a “post-foundational” era with respect to knowledge (FEYERABEND 1961; GLUCKSMAN 1977; GREGORY 1994). Texts would now be examined in terms of contexts, attention focussed on socially-constructed discourses; often indeed one found evidence of imperialist, sexist, racist, or other biases (SMITH 1979; GALE a. OLSSON 1979; STODDART 1981).

A central challenge at this juncture was that of finding languages which could permit dialogue on diverse interpretations of reality. Hermeneutics competed with both epistemology and sociology in core courses for graduate students. Metaphor replaced paradigm in the titles of student essays and journal articles – pointing already in the direction of symbolic representation, a theme which would fuel enthusiasm for a “New Cultural Geography” (COSGROVE 1984; DEMATTEIS 1985; CLAVAL 1999). The challenge of negotiating culturally-diverse ways of experiencing nature and landscape returned as a central research question for geographers (SEAMON a. MUGERAUER 1985; OLWIG 2002; BUTTIMER et al. 1999; BUTTIMER a. WALLIN 1999).

During the 1990s indeed much attention was drawn to issues of representation, mediated discourses, to aesthetic and ethical elements of geographical texts (JAMESON 1983; CHENEY 1989; SOJA 1989). At century’s end geographers were more self-confident in their critical reflections on taken-for-granted practices within the discipline. Concerns extended beyond matters of cognitive style or intellectual credibility, even beyond issues of social construction and societal relevance to issues of representation, of the aesthetics of display, signs and symbols, iconography and identity (LINDE-LAURSEN a. NILSSON 1995; YAEGER 1996; CASTELLS 1997; GRA-

HAM et al. 2000; ADAMS et al. 2001). The post-modern turn found scholars more willing to acknowledge diversity in geographical knowledges, eager also to probe their origins, modes of articulation, production and reception as well as their implications for the construction of images – of self and other, of “home place” and “other’s space”, of “nature”, “gender” and “culture” (COOKE 1989; ROSE 1993; PAASI 1996; TUAN 1999). Representation virtually replaced observation as task definition for many late twentieth century human geographers (Fig. 4).

At century’s end, however, as some minds pondered issues of **representation**, a new wave of enhanced possibilities of **observation** via satellite and electronic data-processing beckoned (MESSERLI et al. 2000; INTERNATIONAL COUNCIL FOR SCIENCE 2002; HIMIYAMA et al. 2002). Many seemed confident that this enhanced technical competence and vastly increased volumes of information would lead to better understanding of global issues. Meanwhile student numbers increased everywhere, no doubt encouraged to approach environmental issues from solid training in geography. As a new century – even a new millennium in Western calendars – dawns, there is surely cause for reflection on challenges facing Geography as discipline.

#### 4 Paradox and prospect

The dawn of this “Third” Millennium reveals many a paradox. The scholarly world faces dilemmas some of which have particular poignancy for geographers. Functional specialisation among knowledge fields has

Fig. 4: Observation – Participation – Interpretation – Representation

	1960s	1970s	1980s	1990s
	OBSERVATION	PARTICIPATION	INTERPRETATION	REPRESENTATION
PRACTICES	Exploration Inventory Mapping	Insider/outsider Advocacy Modelling	Texts/contexts Deconstruction Language	Media/symbols Reconstruction Remembering
INTERESTS	National/Imperial Commercial Military	Social justice Equality Reformation	Social construction Power and knowledge <i>Habitus</i>	Identity Diversity Environment
KNOWLEDGE	Foundational Objective Theory and Laws	Dialectical Subjective Paradigms	Post-foundational Intersubjective Metaphor	Relational Mediated Situated discourse
EVALUATION	Epistemology	Sociology	Hermeneutics	Aesthetics/ethics

brought great advantages and keener insights into particular phenomena and processes, but it has led to fragmentation of expertise and difficulties in the integration of results. At the same time, however, there have been unprecedented advances in technologies of communication. Questions arise as to whether these trends could be mutually balancing or mutually re-inforcing?

Paradoxical, too, it seems, that while global humanity looks to science for elucidations or solutions to global environmental problems, many academic researchers – including geographers – seem preoccupied with internal (disciplinary) questions. Scholars identify as topical specialists within sub-disciplinary rubrics rather than with the profession as a whole. Career advancement depends on external research funding and networking within specialised fields. Questions arise about the wider practical implications of functional specialisation: has it enhanced our capacity to comprehend environmental problems? Or has it, in fact, impeded it?

“The signs of severe environmental distress are all around us”, KOFI ANNAN reminded American geographers in a plenary address to the AAG in March 2001, “Unsustainable practices are woven deeply into the fabric of modern life. Land degradation threatens food security. Forest destruction threatens biodiversity. Water pollution threatens public health, and fierce competition for fresh water may well become a source of conflict and wars in the future. Environmental concerns are the national security issues of the future” (ANNAN 2002).

The closing decades of the twentieth century have indeed witnessed a dramatic increase in global environmental research programmes. There is now incontrovertible scientific evidence that human activities are destabilizing global climate. Food and disease crises in some of the world’s wealthiest nations now begin to question the “scientific” bases on which the development plans of previous decades were based. Leading scientists increasingly claim that economy and ecology need not be regarded as mutually opposed. “This understanding that development needs to be sustainable was the conceptual breakthrough of the Earth Summit of 1992”, KOFI ANNAN noted, yet, “In the years since then, however, we have too often gone on with business as usual” (ibid.).

For geographers worldwide there are surely major dilemmas here. Despite the impressive investment in conventional research programmes, publications, and declarations, the number, range and severity of environmental problems continues to grow. Questions arise as to whether taken-for-granted scientific practices are

adequate for the elucidation and/or solution of environmental issues, or indeed whether our taken-for-granted practices and their applications may be part of the problem? The essential questions transcend epistemology, as historians of geographical thought have long since recognised. The most difficult challenges emerge in the transposition of scientific results and statements about “what is” into policy terms of “what ought to be”. Often indeed there has been a failure to acknowledge essential differences between descriptive and normative discourse. A major disillusioning fact at the dawn of this millennium is surely the failure of individuals, institutions, and governments in the rich industrial and post-industrial parts of the world to change behaviour, to question their taken-for-granted ways of life and ways of thinking.

Critical engagement with questions of values in the taken-for-granted folkways of academia therefore remains a perennial task. Consequences of taken-for-granted social constructions of scientific expertise have very tangible salience for geographers. While most places, events and spatial phenomena in the world today are subject to influences which transcend territorial boundaries, practices of geography are still tightly ensconced within national institutions. At a time when trans-national and trans-disciplinary collaboration is urgently needed, scholarly research remains subject to constraints which impede or at least discourage that. Disciplines are line-items in university budgets; they compete for funding within national ministries and research councils; degrees and diplomas are earned through discipline-specific curricula. Given its traditions of comparative and multi-scalar study, could geographers not assume leadership roles in facilitating international collaboration and in offering sound scientific bases on which trans-disciplinary knowledges and understanding could be achieved? Each geographer or national group may identify different priorities among the challenges which face us. But it is difficult to envisage successful outcomes without more critically realist reflections on past experiences and improved international and trans-disciplinary collaboration. And in virtually all settings where geography is practiced today, the paradoxes and puzzles inherited from former generations might afford prime catalysts for creativity in shaping a discipline equipped for a Third Millennium.

##### *5 Geography for a Third Millennium*

Two epitome texts from the millennium year illustrate something of the intellectual challenges emerging

from the twentieth century. Skeptical of modernity and traditional Cartesian certainties, post-modernist writers celebrated uncertainties of geographical knowledge and conventional cartography (COSGROVE a. MARTINS 2000, 99):

“The mapped globe that emerged over the course of a half-millennium between 1450 and 1950 inscribed with its linear fixities of latitude and longitude, of continental coastlines and of political territories, has been displaced by the blurred surfaces and relativities of satellite images of earth, the interconnections of virtual global hyperspace, and the permeable territorialities of a decentered, post-colonial sphere. In such a fluid and uncanny space-time, attempts to “map” the millennial moment in specific locations acquire considerable poignancy.”

While some cultural geographers explored ideas of creative representation, performative mapping and the aesthetics of display, others bemoaned the loss of cognitive clarity and the disconcerting confusion of contemporary global trends (HAMILTON 2000, 2):

“The relationship between global economic and ecological systems is an exceedingly complex one that abounds with paradoxes. On one hand we accept a paradigm of exponentially increasing human output, on the other we are increasingly aware of the vulnerability of the fundamental life support systems that provide both the raw materials and the waste assimilation capacity on which we depend. Intellectual confusion abounds! The complexity of these relationships is visible at many levels and in many different fields, none of which can be fully understood in isolation.”

Each of these texts resonate to the late twentieth century legacy of “post-ings”: post-structuralism, post-colonialism, post-modernism; and its wearisome “anti-s”: anti-imperialist, anti-capitalist, even anti-scientist. At century’s close we seemed to be far more sure of what we were against – what we wished freedom **from** – than what we wished freedom **for**. Yet one of the resounding results of recent reflections is the recognition that there are varieties of geographical knowledges – academic, popular, applied and others – each constructed and disseminated in particular contexts and serving particular human interests – rather than one form of knowledge called Geography.

In this vein, might one not now dare to re-define some of the major challenges facing humanity and environment today in terms of competing, contested or conflicting geographical knowledges? Could this insight not offer fresh approaches to global environmental issues? Within each of these knowledges one can easily detect elements of both descriptive and normative, i.e., commonly accepted “truths” about “what is”,

and commonly accepted norms for “what ought to be”. One central opportunity for geographers today is to open up dialogue on the relative strengths and limitations of these diverse knowledges, assessing them also in terms of their appropriateness for sustainable life-ways in the future. For within geography itself one finds varieties of knowledges spanning the natural sciences, humanities and social sciences. Should we not then be in an ideal position to host trans-disciplinary dialogue within the international scientific community?

UNESCO’s millennium *Declaration on science and the use of scientific knowledge*, in fact, acknowledged the value of diverse geographical knowledges (UNESCO 2000, par. 35, 36, p. 27):

“Modern science does not constitute the only form of knowledge and closer links need to be established between this and other forms, systems and approaches to knowledge, for their mutual enrichment and benefit ... Such knowledge systems represent an enormous wealth. Not only do they harbour information as yet unknown to modern science, but they are also expressions of other ways of living in the world, other relationships between society and nature, and other approaches to the acquisition and construction of knowledge.”

The ideal geographer of the next millennium will be one who seeks to understand the nature and dynamics of general global systems and still remain solidly anchored in particular local/regional contexts. With the ability to comprehend broader patterns comparatively, and thus recognising where and how influences from one realm could impinge positively or negatively on others, geographers could become catalyst for dialogue among contested and competing local interests. And within the Academy, geographers could host and foster transdisciplinary approaches to research, ultimately framed in ways which highlight interactions between human and bio-physical aspects of environmental issues.

And this is what a number of geographers have attempted over the past century and a half. Scholars such as George Perkins Marsh, Elisée Reclus, Jean Brunhes and Pierre Deffontaines, Dudley Stamp, Gilbert White – to mention but a few – have sought to evoke broader perspectives on humanity and environment. Within the broader horizon of global scientific concern, one could recall that credit for international programmes such as those of MAB, SCOPE, UNEP, IGBP and IHDP belongs to a few dedicated geographers who believed in “bottom-up” versus “top-down” approaches to planning, in the empowerment of indigenous peoples, and in cross-cultural as well as cross-disciplinary collaboration. Many of these schemes –

which now enlist scholars from a wide array of disciplines from geophysics to metaphysics, economics to ethics – have been initiated by scientists with vision, including geographers. Our role has been that of evoking awareness and charting new courses for other, more specialised specialists, to follow.

Such a role, at once poetic and entrepreneurial, will remain one of geography's most important roles among scholarly fields during the Third Millennium. Recent concerns about sustainable development have revalidated classical concepts of scale and appropriateness (BUTTNER 2001). Young scholars in all fields of social science today can approach their subjects with better awareness of their intellectual heritage, of the strengths and limitations of various models which enjoyed vogue for other settings. They are keenly aware that models inherited from a previous generation may have limited appropriateness for elucidating the lived geographical realities of today or tomorrow. So the future beckons invention as well as inventory, debate and dialogue as well as denunciation, and invites richer harvests from reflections on historical experience in the form of fresh insight and energy to elucidate the emerging social realities of this new millennium.

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