Political ecology in the key of policy: From chains of explanation to webs of relation

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Abstract

Political ecology (PE) is rooted in a combination of critical perspectives and the hard won insights distilled from field work. The theoretical base of political ecology was joined, by Piers Blaikie and others, to an unflinching commitment to empirical observation of biophysical and socio-economic phenomena in place. To this already ambitious mix was added a practical intent to contribute to material as well as social change: a practical political ecology of alternative development ran beneath the surface of much of this work. For many this led to serious encounters with policy and the machinery of policy research institutions. While seemingly contradictory with the critical tenets of political ecology, Blaikie’s pursuit of this pathway led beyond the ivory tower to Political Ecology in the Key of Policy, initially to inform national and international policy and eventually expanding – through the work of second-generation PE – to address internal policy in social movements and alternative development networks. Among recent variations on political ecology that have built partly on the work of Blaikie, Feminist Political Ecology (FPE) expands PE to address women as a group, and gender as a category. FPE and post-structural PE are based on multiple actors with complex and overlapping identities, affinities and interests. An emergent wave of political ecology joins FPE, post-structural theory, and complexity science, to address theory, policy and practice in alternatives to sustainable development. It combines a radical empiricism and situated science, with feminist post-structural theories of multiple identity and “location”, and alternative development paradigms. This approach honors the legacy of Piers Blaikie and other PE founders yet incorporates the insights and political projects of feminism, post-structural critique and autonomous or alternative development movements.

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1. Introduction

It may come as a surprise to some scholars to find me tracing roots of Feminist Political Ecology to The Political Economy of Soil Erosion. The fact is, I have been weaving “chains of explanation” into webs of relation and situated science for the last 20 years. Some might have expected my intervention in this special issue, to be an ovarian critical comment on the seminal work of a pioneer political ecologist and illustrious geographer. Not so. In all seriousness, I owe a great intellectual and professional debt to Piers Blaikie and will trace his influence in my own early applied work as well as more recent developments in Feminist Political Ecology, Situated Science and Alternative Development/Alternatives to Development. Each of these fields is characterized by a mix of contributions from Blaikie’s work, from foundational precedents, to common roots, contemporary convergences, some significant points of divergence and eventually offshoots in new directions. I will characterize these through a brief chronological and topical account of the contributions of Piers’ work to my own research, writing and thinking as well as that of students and colleagues in and out of the academy. I will conclude with a discussion of new trends in Feminist and Post-structural Political Ecology, Practical Political Ecology and Alternative Development/Development Alternatives, and the potential pathways for expansion of PE.

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2. A short history of distant connections

My own introduction to Piers Blaikie’s work seems at first glance very far removed from the study of women, gender and environment, or even political ecology. In 1986 I was recently hired at the Ford Foundation Nairobi Office as a Program Officer in Rural Poverty and Resources for East and Southern Africa. One of my first tasks was to familiarize myself with the leadership and staff of the national ministries and non-government organizations (NGOs) dealing with agriculture, forestry, and rural development. On the occasion of my first visit to an official of the Kenya Institute for Agricultural Research I was prepared for a dry, fairly formal introductory visit and had no great expectations for the exchange. Once admitted and welcomed to his office I began to explain my proposed program on agriculture, forestry and social justice, thinking it might be a hard sell in a national technocracy.

No sooner had I broached the topic than my imagined technocrat reached across his desk with a copy of The Political Economy of Soil Erosion in Developing Countries by Piers Blaikie (1985). “Have you seen this?” The enthusiastic scientist noted that it was both practical and political, and as such, extremely useful for thinking about soil conservation and land management issues in terms of larger scale processes as well as local conditions and concerns. He noted that this put in perspective several of our mutual interests in rural development and resource management.

This encounter reminded me of the extent to which the leaders and staff of national bureaucracies and technocracies use and create indigenous and hybrid knowledge. “Local knowledge” in this case included the experience and memories of colonial occupation that informed a critical political perspective among even highly placed technocrats in a decidedly conservative government.

I was already accustomed to writing working papers and technical reports for applied research audiences but the pathway of Blaikie’s critical academic book to the desk of a senior scientist and administrator provided a new role model for my future scholarship. It meant that I need not (and perhaps should not) choose between academic, practical and policy roles and that I ought to allow myself to combine these perspectives, even if sometimes it meant alternating the voice and changing the foregrounded versus back-grounded elements according to the purpose and audience of a given publication. The Political Economy of Soil Erosion also strengthened my resolve to finish Agroforestry in Dryland Africa (Rocheleau et al., 1988), which has since graced the desks of many ministry and foreign aid officials as well as field practitioners across Africa.

The Political Economy of Soil Erosion linked the everyday grit of soil conservation and resource management to politics, and it did so specifically in Kenya, among other cases. Blaikie clarified the messy implementation and the ambiguous reception of soil conservation in the mid-1980s by excavating the checkered political past of colonial soil, water and range management programs and the way that soil conservation structures became symbols of colonial oppression and sites of active political resistance. This extended to the specific examples of resistance among the Wakamba in Machakos District, people who many of my expatriate social science colleagues in Kenya had erroneously identified as consistent collaborators with colonial and subsequent national governments. Blaikie’s work helped to overturn this incorrect characterization.

His combination of practical environmental and resource management history with critical social and political studies presaged the kind of work that many of us now take for granted across Political Ecology, Science and Technology Studies and critical approaches to resource management in Environmental History (Turner, 1996). We can see the echoes of Blaikie’s critical and practical history in a raft of PE and related scholars, from the profoundly historical work of some authors (Peluso, 1992; Carney, 2001; Fairhead and Leach, 1995; Guha, 1989) to more contemporary and STS focused arguments (Escobar, 1995; Goldman, 2003; Turner, 2003; Taylor, 2005). While critical development studies had long since taken issue with the prevailing development paradigm using macro-empirical social and economic evidence of failed models at national scale, Blaikie’s work made a direct appeal to local and regional scale with empirical evidence from the field as well as archival reports. This too came as validation and a message that critical applied geographers could and should move across scales of time and space, as well as bridging the barriers between critique and technique in resource management.

Blaikie set a particularly important precedent for several geographers and anthropologists – now active in PE and related fields – working in the 1980s in international agricultural research centers. This group included Judith Carney, Anthony Bebbington, Simon Carter, John Raintree, Robert Rhoades and myself. Once I encountered Blaikie’s work I began to further develop the critical dimensions of the Land User Perspective for Agroforestry (Rocheleau, 1987) and other work for development and policy audiences, with a new sense that this was a proper exercise of academic inquiry, expertise and power. Once within the academy (from 1989 onwards), I focused increasingly on gender, class and imperial power in forestry, farming, land use, environment and development, as well as participatory democratic methods (for alternative research and development) in Kenya as well as the Dominican Republic.

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1 The “related” category invoked in this article refers to people who do not self-identify as political ecologists, perhaps in part due to the difference in the way the term is understood and applied in North America and Europe, as well as some scholars’ primary self-identification with other fields and perspectives. Their own choices of label do not, however, preclude their contributions and roles within the study of PE and in the work of self-identified PE scholars.
3. Political ecology in the key of policy

Along with several others now identified as Political Ecologists (by themselves or others) I could engage in this work within both development institutions and the academy, in part with the space and license created by Blaikie’s first “hybrid” work. Critical agrarian and environmental studies in Africa (Watts, 1983; Mbithi and Wisner, 1973; Porter, 1979) as well as Amazonia (Schmink and Wood, 1977, 1992; Hecht and Cockburn, 1989) also opened up the field. Meanwhile, Blaikie joined with Harold Brookfield to write Land Degradation and Society (Blaikie and Brookfield, 1987) and called for a regional political ecology, which firmly joined political economy and cultural ecology. Taken together, The Political Economy of Soil Erosion and Land Degradation and Society established five hallmarks of what I call ‘political ecology in the key of policy’:

1. Multiple methods, objectives, actors and audiences:
   - Critical explanation
   - Practical analysis and problem-solving
   - Testing and framing of policy
2. Integration of social and biophysical analysis of power relations and environment:
   - Mixed methods
   - Integrated analysis
3. Multi-scale analysis:
   - International, national, regional, local, household;
   - Policy, practices, effects
4. Empirical observation and data gathering at household and local level
5. Chains of explanation combining structure and agency

Given the limitations of space, and the focus of other contributions to this volume, I will emphasize the first two of these five elements in the discussions that follow.

4. Multiple objectives, methods, actors and audiences

The practice of working simultaneously to address multiple objectives and audiences has been widely though not uniformly and universally adopted in PE. Critical theoretical explanation (directed at other academics) is, by definition, a common objective of all work in PE, as is a general trend toward multiple objectives. However, Blaikie, along with a handful of critical and applied development scholars, has been instrumental in creating space for policy relevant PE research, that seeks to inform national and international policy as well as practical and technical problem solving efforts by national ministries, bilateral and multilateral aid organizations, and NGOs. For another group the second objective is most likely to be research about social movements (Peet and Watts, 2004), or among a related group, analysis with and for indigenous and other social movements (Bebbington, 1997; Earle and Simonelli, 2005; Brosius, 1999; Escobar, 1995, 1999), learning from as well as about them. A growing effort in PE addresses the conflicts and convergences between development, conservation, cultural survival, gender equality and political autonomy in a search for social, ecological and technological alternatives (Brosius et al., 2005; Harcourt and Esco- bar, 2005). Blaikie has tended to focus on economic and environmental concerns with national and international agencies while many PE practitioners now address these perennial issues as well as questions of culture, gender and autonomy with civil society groups and opposition movements.

4.1. Multiple methods and the varieties of participant observation, sites and voices

These different articulations of objectives are expressed through the very distinct “voices” and subject positions of researchers as well as their choice of methods and their focus on particular groups of actors. Blaikie has often been a critical participant observer within technocratic projects, frequently a constructive critic and sometimes a reluctantly detached observer within the confines of the thing that has become sustainable development. His written work does not focus on that process but is informed by it. PE scholars have situated themselves as Critical Participants and/or Observers in Sustainable Development and have participated, observed, and analyzed to varying degrees, in distinct ways, with different actors, and under very different terms. Participant observation as a general method is widespread, though the location, practice and identification of the researchers vary widely.

PE participant observers at the grassroots level may focus their writing primarily on critique, in content and tone, rather than practice or policy (Peluso, 1992; Watts, 1983; Carney, 1993; Schroeder, 1999; West, 2005; Sundberg, 2004). Others, closer to Blaikie’s approach, apply results from household and community-based participant observation and formal surveys to address technical field practice by rural people, state and NGO actors, to inform policy and practice. This mix of qualitative and quantitative methods with technological, ecological and social imagination in “hybrid” research is embodied in the work of several PE researchers. The combination of participant observation with writing on social and ecological practice, technique and critique, and the positionality of researchers so engaged, is exemplified and discussed in publications on

2 I use hybrid in this case to refer to the combination of theoretical and applied, critique and technique, social and biophysical.
3 Louise Fortmann, Ben Wisner, Robert Chambers, Pauline Peters, Stephen Biggs, Nick Abel and Robert Rhoades, among others.

feminist and/or mixed methods in political and cultural ecology (Rocheleau, 1995; Fortmann, 1996; Brosius, 1999; Nazarea, 1998; Paulson and Gezon, 2004; Rhoades, 2001; Scoones and Thompson, 1994; Jarosz, 1993; Poats et al., 1988). These differ from Blaikie largely in their explicit focus on methods and the position of the researcher in their writing.

Blaikie and others also use participant observer status in “field sites” that go beyond the farm household and the local landscape to the halls of power in national and international technocracies, NGOs and field project locations (Bryant and Bailey, 1997; Bryant, 2005; Muldavin, 2000; Pieck, 2006; Roth, 2004). Other PE researchers work with multiple layers and sites of participation, observation and analysis within very different contexts, for example in direct collaboration with social movements in actions, plans and deliberations on internal policy (see work by Margaret Fitzsimmons and Arturo Escobar). They may inform social movements – directly or indirectly – based on participant observation in distant centers of power or among less visible and vocal people within movement constituencies (Roth, 2007; Earle and Simonelli, 2005; Wolford, in press; Asher, 2004).

4.2. The moral economy of soiling our hands: critical, political and practical work

As a self-proclaimed practitioner of applied and policy-focused PE in development, Blaikie has often been singled out, unfairly, by critics of applied development research. Many PE scholars, among others, have voiced misgivings about his explicit multi-objective approach and the academic/development practitioner model of PE he practiced as a member of the University of East Anglia International Development Faculty. He generated part of his salary from consultancies, contracts and grants, and often worked for the World Bank, bilateral aid agencies, and national ministries. Academic purists as well as more engaged critical scholars have expressed distrust, and have discounted or even denounced such work.

Blanket disparagement of applied work or research done within and for national and international development institutions suggests that this is tainted by money and politics, while research within the academy (or alternatively, NGOs and social movements) is somehow guaranteed to be clean and untouched by the exigencies of money and politics. Ethical dilemmas are not unique to multilateral and bilateral aid institutions, in contrast to the academy or civil society organizations (see Wolford, in press). The academy too can be a dirty place. It is certainly not free of corrosive and corrupting influences equal to those that plague consulting and salaried work with development agencies. The tenure process protects our right to speak out once we are tenured, but also facilitates and intensifies the social, political and ideological screening for entry and retention in academic posts (Batterbury, submitted for publication). The litmus tests may range from left to right and from applied to theoretical.

Beyond ideological and paradigm differences, pre-emptive risk aversion can determine hiring decisions. Once hired, faculty face unwritten tenure requirements, including publication in “flagship” refereed journals, in spite of the fact that interdisciplinary development scholarship and hybrid theoretical/applied scholarship may not be welcome in these venues. Less prestigious professional journals and edited volumes may circulate more widely among scholars and practitioners and better reach developing countries through subsidized subscriptions, mailings or free access web sites. The “flagship” requirement can have a chilling effect on applied and/or interdisciplinary work, and on the careers of those who refuse to submerge or abandon it.5

This raises several questions about the inherent superiority of basic research and/or research conducted strictly within academic institutions or even in academic collaborations with NGOs and social movements. Is adherence to “company lines” inherently more pernicious than the acceptance of academic orthodoxy required even by “alternative” or critical journals? Is the process of seeking, obtaining and managing academic grants any less political than doing research for the World Bank, USAID, and resource management research institutes? The degree of political meddling does not necessarily correlate with academic, NGO or “grassroots”, versus large multilateral and bilateral institutions. All PE researchers need not follow the same path to be academically legitimate or politically “clean”. We all need to examine our own motives and modes of operation and their consequences for various groups of people and other living beings.

4.3. Antecedents for soiled hands, muddy boots and multiple affiliations

There is ample precedent in traditional Geographical scholarship for “Blaikie-esque” international applied and consulting work, by none other than Carl O. Sauer. In 1983, John Raintree, my colleague at the International Council for Research in Agroforestry (ICRAF), gave me a photocopy of a non-refereed journal article that has been passed from hand to hand among researchers engaged in interdisciplinary agricultural and rural land use studies in international institutes. The article, Science and Authority in International Agricultural Research, by Edmund Oasa and Jennings (1982) was published in the Journal of Concerned Asian Scholars. The authors, who did not enjoy the protections of the academy and reportedly suffered professionally for this publication, recounted the key role played by Carl Sauer in the 1950s as a Rockefeller Foundation consultant in the early design of the international agri-

5 Blaikie’s publication of high-profile books opened space for PE articles (his own and others) in journals.
cultural research centers, and specifically the International Center for Maize and Wheat Research (CIMMYT) in Mexico. The article quotes Sauer’s report and recounts his resignation from the endeavor because the consortium adopted a commercial mono-cropping approach, based on “improved” maize and wheat.

Against Sauer’s advice the Consortium of Governments for International Agricultural Research (CGIAR) discounted what they labeled as “minor crops” in complex mixed cropping systems, which were (and still are) crucial to nutrition, cultural continuity, political autonomy and good resource management. The CGIAR ignored Sauer’s warning and resignation under protest. They chose the path of highly engineered, mono-cropped staples, ostensibly as sources of food and income for rural farmers and as cheap food for what they saw as the politically vulnerable urban masses. A generation later, the academic and professional progeny of Sauer – and others of like mind – have entered the CGIAR and shifted the orientation of several research centers throughout the world (to varying degrees) toward smallholder production of multiple crops and products, according to diverse social and ecological logics. Whether one wishes to view this as lasting reform or simply as “damage control” in on-going struggle, the results matter for rural people.

The moral of this story is that geographers have long engaged as consultants in “development” and have used that experience to enrich their academic work and vice versa. Engaged academic researchers protected by tenure can provide a channel for critical voices moving into and out of powerful development institutions. Blaikie is thus “embedded” not only with the various agencies that have commissioned and funded his work over time but also in a longstanding and rich tradition of critical applied research that has been submerged and all but erased in the history of Geography and PE.

The semi-independence of the academically affiliated consultant or research collaborator provides a unique platform for exchange of insights and timely linkages at the interface between the academy, the sustainable development “establishment” and the growing community focused on development alternatives. Blaikie’s work has been productively situated at this interface for three decades, more consistently and explicitly so than Sauer’s, and provides one working model of balancing applied and critical work in PE.

5. Integration of social and biophysical data, field methods and analysis

The second major feature of PE in the key of policy is the fusion of social and biophysical topics, expertise, and perspectives. This second point resonates strongly with the first in that it continues a discussion about crossing over between academy and policy. Blaikie has demonstrated the importance of combining technological imagination with sociological imagination (in the sense articulated by C. Wright Mills (1959/1976). \textit{The Political Economy of Soil Erosion} represents his first and perhaps best known synthesis of these topics and paradigms in PE, along with \textit{Land Degradation and Society}. However, he continued to combine social and technical sciences in new applications. From prior studies in Africa and South Asia to his current research with Joshua Muldavin on the social and material effects of sustainable development interventions in the Himalayas, he has consistently maintained a double focus on social and environmental changes related to development, past, present and proposed.

5.1. Making a difference in landscapes and lives ravaged by HIV/AIDS

Blaikie incorporated this integrated approach into research beyond the usual reach of PE when he and Tony Bennett pioneered research on the agricultural effects of Human Immunodeficiency Virus (HIV) and Autoimmune Deficiency Syndrome (AIDS) in Uganda and elsewhere in eastern and southern Africa. Informed by PE experience and perspectives, they combined social and biophysical topics and methods in the fields of health, agriculture, planning and land use politics, to address conditions of widespread HIV infection and rising rates of full-blown AIDS. In this case they incorporated the social relations of power into a primary focus on the pandemic. Their research documented the socially and spatially differentiated impacts on agriculture and land use, the range of impacts by place and group, and the possible responses by national and international agencies as well as farm households and local communities.

In 1987, after their proposed project was rejected and then re-drafted into a politically sanitized call for (more conservative) proposals on the topic by a major bilateral aid organization, the duo took their original proposal on the road. They pieced together funds and developed a policy research project. A few years later Blaikie and Bennett (1992) published their book on the agricultural effects of the AIDS pandemic and possible responses in Africa. They documented the existing effects, predicted the future consequences and projected the implications for agricultural practice and policy, including the feeding and care of rural AIDS orphans and the larger demographically bisected population, heavy with children, grandparents and ailing parents. The study combined...
data on morbidity and mortality, livelihoods, and labor allocation, as well as cropping systems, yields and agricultural practices, before and after AIDS struck farm families in Uganda. The researchers then suggested specific agricultural crops, farming practices and policy responses to cope with the effects they had documented. What started out sounding like a coldly calculated set of questions became an important tool for coping with AIDS from regional to local level. This is a prime example of Blaikie’s “hybrid” research across social and biophysical domains.

5.2. Convergent trends in cultural and human ecology

Other researchers have pursued this kind of transdisciplinary and paradigm-bridging research linking biophysical and critical social domains of “development” – in fairly equal emphasis – including several teams and individuals working in PE, Environment and Development, “ethno-ecology” and critical social studies of rural land use, ecology and production. Among the pioneers of Ecological PE within forest and agro-ecology are several authors primarily known to Cultural and Political Ecology scholars working in Latin America. Their work ranges from theoretical treatment of the politics of environmental knowledge, and documentation and scientific legitimation of indigenous and local knowledges, to ethno-ecology of the practices of people in forests and agro-ecologies in Mexico (Gomez-Pampa et al., 1987; Sarukhan, 1996; Toledo, 2000; Leff, 1994; Bray and Merino Perez, 2004), Central America (Vandermeer and Perfecto, 1995) and Brazil (Posey and Balee, 1989; Anderson, 1990).

During the 1990s several researchers in human dimensions of global environmental change, as well as land use and cover change, also integrated elements of social and biophysical sciences to inform and change policy. They used information and insights from field surveys and participant observation in their analyses of regional data sets and remote sensing imagery, and in the development and use of regional Geographic Information Systems (GIS). Some authors from this field label themselves as post-positivist cultural and political ecologists, and explicitly engage PE concepts and methods (Roy Chowdhury and Turner, 2006). Closest to Blaikie’s simultaneously critical and positivist practice is the research summarized in People and Pixels (Liverman et al., 1998) and Turner et al. (2001) in the Yucatan.

6. New developments, key points of departure and the future of PE

The plethora of new departures and developments in PE in no way implies a contradiction, opposition or rejection of Blaikie’s previous work. Rather, it demonstrates the dynamism and vibrancy of the field in which he has played a foundational and continuing role. I will not attempt to cover all the varieties of PE currently burgeoning in theory and practice, within and outside of the academy, but will briefly discuss two trends: increasing engagement with activism, situated knowledge and social movements; and a return to ecology, science and the embrace of complexity.

6.1. Engagement with activism and social movements

The tendency toward increasing focus on and engagement with activism and social movements builds on Blaikie’s work as well as research by scholars such as Marianne Schmink, who has long studied and worked with feminist, workers’ and indigenous peoples’ social movements in Brazil. Some of her writing with colleagues is couched in a descriptive, analytical or critical voice about organizations, activities and events, from Para to Acre (Schmink and Wood, 1992) while recent publications have featured a more practical and policy-focused framework (Zarin et al., 2006). Blaikie has, in turn, often addressed topics that were of concern to activists and part of raging controversies in sustainable development circles, but usually within a national or international agency context, in a detached voice, and in a neutral positivist framework. Following Schmink, many PE scholars now contribute directly to social movements, from joint research on technical questions to participant observer insights on national and global trends of relevance, to participation in critical internal analyses of movements, NGO’s and progressive states (Asher, 2004; Harcourt and Escobar, 2005; Wolford, in press). They may also join in the World Social Forum and other discussions across national, regional and local boundaries, with social movements or organizations representing diverse groups of people seeking alternative futures (Fisher and Ponniah, 2003).

What is new in PE is not the engagement with the issues or the movements themselves, but the tendency to write about the movements per se, to express advocacy, support and constructive critique, to conduct joint empirical research on policy and practical questions and to explicitly describe the terms and processes of collaboration (Wolford, in press). That is, PE scholars are increasingly writing about, with and for social movements and their constituencies.

Following from this direct engagement with social movements is the explicit recognition of multiple actors and identities and of a rising cultural politics within many movements. This does not imply an acceptance of simple identity politics, but is rather indicative of a politics of affinity, as described by Feminist and Post-structural theo-
rists (Harding, 1986; Haraway, 1991; Harcourt and Escobar, 2005). This trend also brings an unequivocal acknowledgment of conflict and differences within and among various groups, within and outside of movements.

6.2. Liberation Ecologies

Liberation Ecologies is a broad umbrella for the raft of structural PE approaches that have connected with political and social movements to document their progress, analyze the issues they address and explore the political and economic roots and solutions of the problems they identify. This approach to PE has been defined largely through the work of Peet and Watts (2004) and the edited volume of the same name. They emphasize structural analysis of progressive movements that include resistance, both direct and indirect (see Scott, 1985) to environmental degradation and displacement, defense of existing land and resources, and struggles with powerful individuals, corporations or hostile states for greater control over resources. This branch of PE ranges from the historical writings of Rod Neumann (2004) on displacement of people by parks and wildlife conservation programs, and the gender and class-based analyses of Rick Schroeder (1999), to recent work by Wright and Wolford (2003) on the Landless People’s Movement MST in Brazil. One of the hallmarks of Liberation Ecology is selective support for social movements and a distinction between “popular” and “progressive” movements.

6.3. Post-structural Political Ecologies

Post-structural PE has incorporated cultural politics, identity, and discourse analysis, extending Foucauldian theories and methods into analysis of sustainable development, environmentalism, and conservation science and practice (Escobar, 1995, 1999; Asher, 2004; Agrawal, 2005; Braun, 2002; Bryant and Bailey, 1997; Demerritt, 2005; Castree, 2005; Bryant, 2005; Paulson and Gezon, 2004; Rocheleau et al., 1996; Pieck, 2006; Biersack and Greenberg, 2006). This branch of PE addresses social movements with a strong emphasis on cultural politics, complex identities and contingent coalitions (Escobar, 1999; Rocheleau, 2001; Moore et al., 2003; Paulson and Gezon, 2004). The research ranges from cultural and subaltern critiques of sustainable development theories and practice, to cultural histories of conservation and development, and discourse analysis of colonial and current imperial practices in environmental science, conservation policy and mapping. It also includes critical analyses and cross-cultural science with and for popular movements (Escobar, 1995, 1999; Agrawal, 2005; Asher, 2004; Vandergeest and Peluso, 2006; Rocheleau, 2001, 2005; Brosius et al., 2005; Roth, 2004; Wainwright and Robertson, 2003). The “cultural turn”, subaltern voices, and post-structural trends in Geography have brought a new emphasis on multiple identity, situated knowledge, positionality of multiple actors (including researchers), and complexity and contingency in social and ecological relations of power (Whatmore, 2002; Massey, 1994; Gibson-Graham, 2006; Haraway, 1991; Wolford, in press).

6.4. Feminist Political Ecology (FPE)

Feminist Political Ecology has emerged as a sub-field of PE, and builds on prior scholarship in PE as well as the work of feminist scholars in development, agriculture, forestry, and feminist theories of science and environment ranging from Socialist to Reformist, Ecofeminist and Post-structuralist (see Rocheleau et al., 1996; Schroeder, 1999; Carney, 1993; Deere, 1990; Schmink, 1999; Nelson and Seager, 2005 for more detailed accounts and references). FPE scholars have extended the multiple scale analysis of environment and power in PE to gendered relations both within and beyond the household, from individual to national scales. We have all sought – each in different ways – to complicate what has been called “community” and “local” as well as the often presumed unit of homogeneous conditions and shared interests, the household (Poats et al., 1988; Momsen, 1991; Momsen and Kinnaird, 1993; Townsend, 1993). While this sets FPE apart from Blaikie’s approach, the emphasis on empirical data at local and household scales maintains a shared thread. What has changed is the focus within as well as between households and the study of gendered power relations within local, regional, national and international contexts. Moreover, feminist theories and methodologies have infused our data collection, analysis and writing about PE topics, ranging well beyond specific studies of women and gender, a point often lost on the larger PE community. Theories of multiple, situated knowledge, imply distinct forms of research processes of collaboration, from ecological science to political organization and practice. New voices are creating additional departures, as FPE grows in size, diversity, and theoretical sophistication, particularly with respect to culture, identity and applications of feminist and post-structural theory (Sundberg, 2004; Paulson and Gezon, 2004; Asher, 2004).

9 Blaikie has focused on conflict between national states and local interests but has not addressed conflicts within communities and households, and issues of ethnicity, race, caste or gender.

10 Some approaches to PE with roots in participatory democracy, ecology as a subversive science, and Liberation Theology (Rocheleau, 1994; Rocheleau and Ross, 1995), are now identified with Feminist Political Ecology (FPE).

11 This field draws extensively on the writing and practice of Louise Fortmann, Marilyn Hoskins, Janet Momsen, Marianne Schmink, Susan Poats, Carmen Diana Deere, Magdalena Leon among others.
6.5. Participatory and practical political ecology for alternative development

Within PE, common property resource management, and alternative development, scholar-practitioners have developed an applied, practical political ecology. They have entered into experimental forms of critical and applied research in search of more democratic and effective models of collaboration with social movements, NGOs and grassroots groups. These researchers engage with groups (formally recognized, or simply self-organized) who are searching for alternative forms of, or alternatives to, sustainable development. They seek to change their conditions, but recognize the limitations and dangers of sustainable development as promoted and “delivered” by national and multi-national technocracies, powerful conservation NGO’s and private interests. They may desire collaboration to resist specific sustainable development efforts or to develop their own distinct innovations.

Scholars in this field work in various roles, from critical observers and analysts, to advocates, innovators and practitioners of participatory approaches in surveys, mapping, “counter-mapping”, planning and technology design and the politics of organization and coordination. The alternative approaches to Sustainable Development, apart from process and terms of participation, also include specific technologies of production and organization. Many of these efforts incorporate mechanisms such as organic, fair trade and environmental certification of farm and forest goods, crafts and other products of cooperative, communal and ecologically “sustainable” industries (Russell and Harshbarger, 2002; Klooster, 2006; Hernández et al., 1998). Some initiatives involve community-based resource management (trees, wildlife, water or entire ecosystems) as in the CAMPFIRE programs in Southern Africa (Murphree, 2005; Brosius et al., 2005). These approaches take PE from participant observation to attempted embodiments of participatory democracy in action, and from critique to working networks of producers and consumers. However limited by larger economic and political systems, the performance of these alternatives has become a hallmark of the global movement linked to the World Social Forum. It is one way to harness practical political ecology, and to demonstrate that many other worlds are possible and practical.

7. Return to ecology: “Hybrid” science, and complexity

The “return” to ecology may be a misnomer for some of us, since we never left it, but it is still fitting to speak of a “return” or revival in terms of academic PE. While the social side of PE burgeoned in the early 1990s the biophysical dimensions languished, in print if not in fact (Turner, 1996). Empirical, quantitative and ecological data was routinely purged as “unnecessary” or “excessive” from my own PE publications and I suspect more than a few others. Equal emphasis on biological and social dimensions of ecology was discouraged as awkward, if not impossible or undesirable, and on at least one occasion I thought I was in danger of excommunication for the transgression of invoking “biological metaphors” in a PE panel at the AAG. Blaikie’s presence and publications helped to maintain a place for applied and policy-relevant PE and provided a platform to launch studies of “hybrid” and “emergent” ecologies. Since 1995, several publications have featured the social relations of power as determinants of biological and material elements (positive as well as negative) in a variety of landscapes, from sites identified as “natural” to those assumed to be entirely artifacts of human intervention (Robbins, 1998, 2004, 2005; Fairhead and Leach, 1995; Bassett and Crumme, 2003; FitzSimmons and Goodman, forthcoming; Guyer and Richards, 1995; Zimmerer, 1997, 2000; Rocheleau and Ross, 1995; Rocheleau et al., 2001; Roth, 1999, 2004).

The turn back to ecology in PE has brought a parallel resurgence of ecological and landscape mapping, ranging from criticism to activism to “scientific practice”. The designation of conservation areas has relied increasingly on landscape (and seascape) zoning into two-dimensional polygonal territories of eviction and refuge, and of accepted and prohibited land use and settlement practices. Yet, multiple, complex and conflicting claims based on precedents for human use, rights of use and access, actual and perceived needs of humans and other species, all determine spatial re-structuring and new demarcation of territories across scales. Several PE and Common Property researchers have explored the power relations in environmental, resource and ecological mapping and the definition of territories as sites of control over space, specific material resources and environmental conditions. They examine the process of mapping itself, as well as using it for practical, investigative, and explanatory purposes, in scientific, critical and political frameworks (Hodgson and Schroeder, 2002; Brosius et al., 2005; Rocheleau, 2005; Goldman, 2003; Zimmerer, 1997, 2000; Roth, 2004, 2007; Fox et al., 2005; St. Martin, 2001; Laris and Wardell, 2006; Vadjunec 2003; Zimmerer, 1997, 2000; Roth, 2004, 2007; Fox et al., 2005; St. Martin, 2001; Laris and Wardell, 2006; Vadjunec 2003; Zimmerer, 1997, 2000; Roth, 2004, 2007; Fox et al., 2005; St. Martin, 2001; Laris and Wardell, 2006; Vadjunec)

12 These are summarized in several publications (Bebbington, 1997; Batterbury et al., 1997; Slocum et al., 1995; Rocheleau, 1994, 2005; Scoones, 1999; Brosius et al., 2005; Peluso, 1995; Hodgson and Schroeder, 2002; Roth, 2007; Russell and Harshbarger, 2002; Wisner et al., 2005; Wolford, in press; Bray and Merino, 2004).

13 Several PE scholars examine power and maps (Vandergeest and Peluso, 2006; Braun, 2002; Brosius et al., 2005; Fox et al., 2005; Goldman, 2003; Hodgson and Schroeder, 2002; Rocheleau, 2005; Roth, 2004; Zimmerer, 2000; Demereitt, 2005).

14 Common Property Resource Management and Community-Based Natural Resource Management constitute interdisciplinary practices and groupings of scholars that combine positivist and critical social science perspectives and methods with varying degrees of environmental science to address issues of justice, conflict, shared and divided systems of use and control, and basic needs in relation to land, water, forests, fisheries, wildlife and other elements of ecologies used, inhabited and otherwise affected by people.
and Rocheleau, forthcoming; West, 2005; Vandergeest and Peluso, 2006). What differentiates this PE group from other critics and practitioners of mapping, remote sensing and GIS-based research is the simultaneous use and critique of mapping and engagement in empirical field research informed by theory. Blaikie’s historical work on social and material dimensions of resource management provided important precedents for critical studies of maps as tools of power, and for applied studies using maps as power-tools of resistance and self-determination.

A number of ecological and social researchers have also embraced complexity theories and models and to some extent network models and metaphors as well as elements of PE. Some combine studies of complexity (and resilience) with cultural and political studies of ecological change, multiple ways of knowing and understanding ecologies, and diverse “traditional” and evolving models of sharing and dividing access, use, labor, knowledge, responsibility and control in landscapes and ecologies (Berkes et al., 2002; Daily et al., 2001; Roth, 1999; Vandermeers and Perfecto, 1995; Gruen and Richards, 1995; Toledo, 2000; Bray and Merino Perez, 2004). An increasing focus on policy has also led to combined examination of ecological and political data at field level and analysis of trends at larger scales (Nigh and Rodriguez, 1995; Roth, 2004; Zimmerer, 1997, 2000; Brosius et al., 2005; Escobar, 2004; Leff, 1994). Current debates on parks, poverty and community-based conservation exemplify this dynamic edge in the borderlands of PE (Chapin, 2004; Agrawal, 2005). The field of biodiversity and conservation literally calls out for more ecological PE in the key of policy.

8. From regional PE to feminist, post-structural, complex, and practical PE

While the developments in FPE and post-structural PE represent, for some, a definitive break with Blaikie’s empirical and practical work, they have served many of us as bridges back into material ecologies and engagement with “science”, but on new terms. A growing group of social and ecological scholars has embraced complexity theories, and network models and metaphors, as part of a new integration of cultural and biological realities in PE. The center of gravity is moving from linear or simple vertical hierarchies (chains of explanation) to complex assemblages, webs of relation and “rooted networks” (Rocheleau and Roth, 2007; Rocheleau, 2001; Escobar, 2001, 2004), with hierarchies embedded and entangled in horizontal as well as vertical linkages. PE researchers increasingly seek to embrace complexity without losing the explanatory power of structural relationships, or the empirical roots of PE. Many also struggle to shift from participant observation to democratic, participatory research, without sacrificing observation, and seek to provide a more transparent accounting of their complex insider–outsider connections.

As the pendulum swings back to a more even mix of critique and technique, and as PE researchers increasingly conduct studies with and for rather than only about social movements and people-in-place, we return to Blaikie’s example of practical and technical research in a critical frame, in a new context. There is scope in this evolving PE for a radical empiricism based in observation, but from multiple positions and perspectives, using the tools of complexity and network theories and models to change the way we do science, critique and practical work on sustainable alternatives to development.

While this is not a definitive feminist critique of Blaikie’s work it is one feminist’s vision of the potential for building on Blaikie’s prior work to mesh concepts of PE, feminist theory and complexity. I propose that we base this emerging “situating science” on “seeing multiple” through the kaleidoscope of a variety of situations, locations, and experience. From the bedrock of Blaikie’s field research combined with development critique, several new pathways are opening up in PE. They will differ from his work in the balance of complexity and simplicity, their emphasis on induction and synthesis versus deduction and analysis, and in the voice, presence and position of researchers. They will, however, be unmistakably indebted to Piers Blaikie’s life’s work as embodied in writing and practice.

References


15 See the Resilience Alliance website, the on-line journal Ecology and Society, Gunderson and Holling (2001) on Panarchy, and publications by Fikret Berkes on ecology, culture and multiple ways of knowing.


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