Geography and the Environment Faculty Publications

Geography and the Environment

2012

Transboundary Political Ecology in the Peru-Brazil Borderlands: Mapping Workshops, Geographic Information, and Socio-Environmental Impacts

David S. Salisbury
University of Richmond, dsalisbu@richmond.edu

A. William Flores de Melo

Pedro Tipula Tipula

Follow this and additional works at: http://scholarship.richmond.edu/geography-faculty-publications

Part of the Environmental Studies Commons, Geographic Information Sciences Commons, and the Physical and Environmental Geography Commons

Recommended Citation

Transboundary Political Ecology in the Peru-Brazil Borderlands: Mapping Workshops, Geographic Information, and Socio-Environmental Impacts

David S. Salisbury[*]
A.Willian Flores de Melo[**]
Pedro Tipula Tipula[***]

Resumen

El mercado global y las políticas nacionales siguen impulsando el desarrollo, la colonización, y la extracción de recursos en las zonas fronterizas de la Amazonía. Las políticas nacionales promueven desarrollo y conservación en tierras ya ocupadas y gestionados. Los gobiernos regionales están cada vez más frustrados por la información geográfica inadecuada y obsoleta utilizada para solucionar superposición y mejorar la planificación en estas zonas fronterizas sensibles. La combinación de la imposición de políticas erradas, recursos contestados, y la información geográfica inadecuada en zonas fronterizas no sólo ponen en peligro paisajes nacionales, regionales y locales y los medios de vida, sino también las relaciones exteriores debido a los impactos transfronterizos. Este artículo utiliza un marco ecología política transfronterizo para contextualizar los productos, los procesos, y la promesa de un taller transfronterizo Ucayali, Perú-Acre, Brasil financiado por el Instituto Panamericano de Geografía e Historia (IPGH).

Palabras clave: *Amazonía, Perú, Brasil, mapas, fronteras*.

* David S. Salisbury, Department of Geography and the Environment, University of Richmond, Instituto Panamericano de Geografía e Historia, Comisión de Geografía, Estados Unidos de América, correo electrónico: dsalisbu@richmond.edu
** A. Willian Flores de Melo, Centro de Ciencias Biológicas e da Natureza, Universidade Federal do Acre, Brasil, correo electrónico: willianflores@gmail.com
*** Pedro Tipula Tipula, Instituto Panamericano de Geografía e Historia, Comisión de Geografía, Perú, correo electrónico: ptipula.ibc@gmail.com

Abstract

Development, resource, and settlement frontiers inspired by national policies and global demand continue to expand into the international boundary lands of Amazonia. National policies promote development and conservation projects on lands already inhabited and managed. Regional governments are increasingly frustrated by the inadequate and outdated geographic information available to solve overlapping claims and improve planning in sensitive border regions. The resulting combination of inappropriate policies, contested resources, and poor geographic information in the borderlands create impacts not only for national, regional, and local landscapes and livelihoods but also foreign relations due to transboundary effects. This article uses a transboundary political ecology framework to contextualize the products, process, and promise of a Ucayali, Peru, Acre, Brazil transboundary mapping workshop funded by the Pan American Institute of Geography and History (PAIGH).

Key words: *Amazonia, Peru, Brazil, maps, borders.*

Introduction

Settlement, resource, and development frontiers continue to expand into the international borderlands of the nine Amazonian countries in South America. Expansion increases conflict as national policies project development and conservation objectives onto inhabited and locally managed landscapes deemed rich in resources and biodiversity, and empty of people. In Peru and Brazil, regional governments are increasingly frustrated by the imposition of national policy, and the lack of accurate and actualized geographic information available to contest national efforts and improve regional planning in the remote borderlands. The borderlands demonstrate particular sensitivity to development and conservation initiatives due to the transboundary socio-environmental impacts at national, regional, and local scales. These transboundary impacts motivate Amazonian countries to not only improve the quantity and quality of geographic information in their country, but also obtain detailed knowledge of their neighboring country's geography. This paper details the efforts of a multi-institutional transboundary mapping and GIS initiative designed to share and improve information between the Amazonian states of Acre, Brazil and Ucayali, Peru. Results demonstrate the importance of transboundary efforts to reconcile conservation and development in the increasingly threatened Amazon borderlands. Before analyzing the process and products of the transboundary workshop, this paper briefly reviews the empty amazon concept and introduces the transboundary political ecology framework used to analyze nature-society relationships in the borderlands.

The Empty Amazon

The borderlands of Amazonia present unique challenges to researchers and planners interested in understanding and mapping their varied physical and human geography. These challenges include dynamic fluvial systems, the ability of tropical forests to disguise current and recent settlement, and the migratory character of local populations negotiating boom and bust frontier economies. Add to this the isolated nature of these borderlands and the financial and logistical challenges of obtaining and field checking remotely sensed data and existing cartography, and it is not surprising to find the official maps of the borderlands wanting.

The lack of adequate base maps and reliable information on population centers and titled lands echoes the political ecology theme of the empty Amazonian landscape (the *tropical tabula rasa*) (Hecht, 2004). Here, however, the slate is not entirely blank, but rather poorly drawn. Thus, desk bound planners knowingly project their external agenda on a scrawled slate, and the landscape, since "nobody knows what is really out there anyway". In those cases where planners put in a good faith effort to assemble existing information, the task often proves Herculean, leading to similar outcomes: the creation of resource concessions whose resources, inhabitants and limits are based on outdated studies, inadequate geographic data, and flawed hydrography respectively.

The social ramifications on the ground are serious as local residents now must contend with oil companies, miners, road engineers, and loggers with official claims to their lands and resources. This takes place in an already contested landscape riddled with illegal extractors (loggers, fishermen…) and coca farmers. Local people fall within the multiple, simultaneous and overlapping contested claims, and must negotiate to survive (Schmink, Wood, 1992). Some, lacking alternatives, work for loggers, miners or drug traffickers, while others practice resistance, seeking help from authorities despite the hurdles of bureaucratic inertia, corruption, and indifference. Ultimately, the only clear winners in the confusion created by inadequate geographical information and overlapping claims are the illegal resource extractors and drug traffickers who can thrive in a confusing and poorly understood frontier.

The key word is *understand*. The conservation of the cultural and ecological diversity and the promotion of social justice and sustainable development in these borderlands require an improved understanding of the region's geography. An improved understanding will necessitate exploration, direct observation, and critical analysis of existing cartography to penetrate the silent spaces (Harley, Laxton 2002) and misrepresentation in the borderlands. All parties need detailed, updated, and accessible geographic information. The information must be official to guarantee acceptance by all organizations, but dynamic to reflect the constantly changing physical and human geography and to incorporate feedback processes. Most importantly the information must be informed by local knowledge to ensure robust

data at a variety of scales. While the logistical and financial obstacles to producing this information are formidable, they are likely less costly than failed projects based on flawed geographic information and the attendant loss of cultural and ecological riches. In the borderlands flawed geographic information also has implications for neighboring countries, and researching these implications requires new approaches such as transboundary political ecology.

Transboundary Political Ecology

The Transboundary Political Ecology (TPE) approach follows Robbins' (2003) recognition of the potential for melding the sub-disciplines of political geography with political ecology to produce conceptually advanced explanations of complex human-environment interaction. Within political geography, TPE informs research on borders and borderlands, where leading border scholars have called for more research on the environment (Newman, Paasi, 1998) and stressed the importance of local level inquiry (Häkli, Kaplan; 2002, Newman, 2006; Hagen, Diener, 2010): both strengths of political ecology. Indeed, international borders often result from the contest for natural resources and subsequent diplomatic negotiation and thus are process and product of political ecology (Salisbury, Borgo Lopez and Vela Alvarado, 2011). Transboundary political ecology provides us tools to understand the complex ways ecology and politics intersect and bridge borders and borderlands at multiple scales. A transboundary political ecology framework can be based on a structural political ecology or post-structural political ecology being mindful that borders must also be understood using multiple approaches (Newman, 2006).

The transboundary political ecology framework is particularly suited for inquiry into borderlands understood, as dynamic zones of contact and crossover over time and space (Augelli, 1980; Wendl, Rösler, 1999; Kaplan, Häkli, 2002), but also, similar to political ecology itself, as a produced network of relations including both nature and people (Robbins, 2003). Borderlands function as zones of interaction at the nexus of multiple edges: political, cultural, and even ecological given the propensity of political boundaries to follow rivers, ridgelines and other ecotones. These political, ecological, and cultural edges expand and enhance diversity and knowledge of the resources people draw on for their livelihoods through complex local transboundary networks such as familial ties, friendship networks, and entrepreneurial connections (Baud, 2000; Turner, Davidson-Hunt and O'Flaherty, 2003).

Borderland networks straddle spaces both marginal and powerful. The state creates marginality by including remote peoples and landscapes within state classifications of space and society, but then often ignores them or creates policies based on imaginative geographies of backwardness and remoteness (Sturgeon, 2004, Truett, 2006). However, border spaces also attract elevated state interest due to the desire for territorial control (Rumley, Minghi, 1991) and collusion with illicit trans-

boundary commerce and special interest groups (Duffy 2001). The borderlands thus provide a landscape of highly uneven power relations.

Scale in Transboundary Political Ecology

The border exacerbates these uneven power relations further by bringing together multiple states projecting power at multiple scales. Not only is one state always more powerful than its neighbor (e.g. U.S.A./Mexico border for an extreme case) but power dynamics shift at different scales depending on numerous factors such as location, natural resources, and municipal policies to name a few. Borderland peoples then negotiate the opportunities and challenges presented by a dynamic border at multiple scales. Yet these borderland peoples are viscerally part of the social construction of multiple scales by their very border location (Brown, Purcell, 2005; Agnew, 2008).

The border provides the launching place for transboundary political ecology to contribute to the political ecology of scale. Zimmerer and Bassett (2003:290) argue the hallmark of the political ecology of scale is simultaneous engagement with the biophysical and social processes that produce unique socio-spatial configurations of resource use. TPE considers these processes first by close attention to the historical importance of biophysical edges such as watershed divides and species ranges in dictating resource management and political boundary formation. This overlooked historical political ecology of place (Offen, 2004) provides temporal context as these same boundary lands become fluid and re-constituted spaces and scales of contemporary resource management that are the result and medium of tangled social-environmental dynamics. For example, parts of the boundary between Brazil and Peru corresponds to the range limits, and thus historic management, of the *Hevea brasiliensis* rubber tree, but the range of high value timber currently coveted by global markets does not correspond to this remote administrative boundary (Salisbury, Borgo Lopez and Vela Alvarado, 2011). This scale mismatch is further complicated by the mobility and resource management of local populations creating a complex transboundary political ecology driven by global markets, rational decision making by local people, ecological processes, and socially produced, but often biophysically informed, boundaries.

Boundaries, Borders, and Transboundary Political Ecology

The transboundary political ecology multi-scalar research approach provides a framework to look at political ecology themes straddling borders and borderlands. These transboundary spaces are rich venues for grappling with the central themes of political ecology articulated by Peet, Robbins and Watts (2011) as: one, the impact of development on the environment; two, the political and social implications of

environmental conservation and control; three, the production of new natures and ecologies. Here we will focus on the first two. Transboundary research provides elegant opportunities to better understand the impacts and implications of both development and environmental conservation by comparing how distinct political economies and policies impact neighboring and often similar environments. For example, Robbins (2004) uses a comparison of Kenya and Tanzania to introduce the importance of politics in supposedly apolitical ecological relations. Another example describes how distinct political systems and the international border empower the Brazilian Asháninka to become powerful defenders of the state and the rainforest, whereas their neighboring cross-boundary cousins in Peru remain invisible, marginalized loggers (Salisbury, Borgo Lopez and Vela Alvarado, 2011).

However, the strength of transboundary political ecology is not to compare and contrast neighboring political ecologies in hermetically sealed boxes, but to understand how power, people, and place bleed across the border and back creating new political ecologies of scale. Two examples from research in the Peru-Brazil borderlands can help us better understand the transboundary impact of global markets and national policies at the local level and the feedback of these local impacts across scales. First, global demand for timber drives forestry policy in Peru with planners in Lima offices using outdated and inadequate geographic information to project primary production forests and forestry concessions onto previously logged and actively inhabited forests proximate to the international boundary with Brazil. Loggers, in turn, log outside their concession to recoup costs with some logging and logging related impacts (hunting, trade, trafficking) local, but also transboundary in nature. Local logging impacts across the boundary then scale up to become international flashpoints requiring intense diplomacy (Salisbury, Borgo Lopez and Vela Alvarado, 2011).

Second, Peru's fear of Brazilian expansion motivates Peruvian *fronteras vivas* policy: the creation of military settlement projects. These military projects settle outsiders in the Peruvian borderlands to promote national security, but unintentionally result in hunting and logging in neighboring Brazilian forests, which antagonizes Brazil and threatens the very national security sought to fortify (Salisbury *et al.*, 2010). These two examples demonstrate how larger forces, global markets and national policies, encourage local people to negotiate the environment and the border in particular ways where their local, but transboundary, impacts scale up to become potential flashpoints for international conflict and require foreign diplomacy due to the provocative political nature of transboundary impacts. Transboundary political ecology thus recognizes that local transboundary environmental impacts may become international border disputes mobilizing high levels of political power.

Transboundary political ecology must also be attuned to the ability of discourse to mobilize differential levels of political power. Of particular concern, is trans-

boundary discourse, which can exacerbate existing power discrepancies and differential access to resources whether discourse is couched in transboundary conservation (Duffy, 2006; King, Wilcox, 2008) or development (Sneddon, Fox, 2006). However, while transboundary discourse can be used to quell local and state interests, local communities can also use transboundary discourse to scale up and contend with other forces.

Transboundary Workshop

In June of 2012, sixteen GIS professionals from thirteen institutions and two different countries came together at the Centro de Investigación de las Fronteras Amazónicas (CIFA) de la Universidad Nacional de Ucayali (UNU) in Pucallpa, Perú for the "Workshop to Integrate Data and Improve Technical Capacity to Mitigate Environmental Challenges in the Brazilian and Peruvian Amazon" The workshop began with a conference to educate the public and local policy makers of the importance of geographic information for conservation and sustainable development. One hundred and twenty eight indigenous leaders, university professors, GIS technicians, NGO directors, and Government Officials from 28 institutions shared their insight such as 1) how ecological and cultural diversity permeate international boundaries; 2) how the environmental challenges on both sides of the boundary are similar; 3) how local and indigenous populations have been historically marginalized in the borderlands despite their local knowledge and leadership potential to reach transboundary sustainability goals; 4) the need to build human and technical capacity to prepare for an increasingly dynamic Amazonia due to climate change, infrastructure mega-projects, and extractive industries; 5) the need for better quality geographic information for improved management at local, regional, and national scales. The conference ended with all participants empowered by the workshop's potential to provide the information necessary to make improved decisions about natural resource management, development, and conservation in the borderlands (Salisbury *et al*., 2012).

However, participants quickly faced a number of challenges including distinct languages, different spatial representations of their international boundaries, outdated national data sets, low quality and missing geographic information, and data with variable scales, datums, and projections. The assembled GIS technicians, used to these challenges in the borderlands, standardized the best available data, and decided their efforts would focus on creating a capacity building process and products for improved transboundary management rather than a single map. To accomplish this goal, they divided into three groups: threats, protected areas, and ethnogeography. Each map making group contained representatives from both Brazil and Peru, and used GIS as a common language to make the technical decisions required for transboundary cartography. At the conclusion of the five day workshop, the interdisci-

plinary team of participants decided to call themselves the Acre-Ucayali Trans-boundary Geography Working Group (GTGTA-U in Spanish/Portuguese) and displayed three unique transboundary maps as examples of their craft. Nevertheless, the most useful outcome of the workshop was the formation of a transboundary network of professionals and to begin an integration process based on geographic understanding rather than speculation and uncertainty. This improved understanding and transboundary network will be paramount as Peru and Brazil continue to contemplate borderland development projects with profound socio-environmental impacts such as the Pucallpa-Cruzeiro do Sul railway and the Puerto Esperanza-Iñapari road (Jump, Salisbury and Vadjunec, 2011; Appling, Salisbury, 2012).

At the conclusion of the workshop the participants signed a document declaring their intention to meet annually to continue to build a transboundary network of geographic information interchange and improve the technical capacity to solve transboundary socio-environmental challenges. Only a week after the declaration, the governor of Ucayali demonstrated the relevance of the workshop by using the workshop maps in a presentation to Brazilian, Bolivian, and Peruvian delegates at a PanAmazonian Seminar focused on tourism and commerce. A month later, the governor and his Brazilian counterpart in Acre signed the agreement of cooperation formalizing the interchange of geographic data across the Brazil-Peru border. The ability to comprehensively share transboundary data across Amazonian boundaries at the state and local scale appears unprecedented and marks a major advance not only for the governments, institutions, and universities involved, but hopefully, also for the diverse indigenous peoples, landscapes, and species in the bioculturally diverse borderlands of Amazonia. Only with improved geographic data and trans-boundary GIS analysis can policy makers make the best decisions possible to mitigate transboundary threats to the Amazonian rainforest and its denizens.

Conclusion

The creation of transboundary geographic knowledge community, GIS database, and suite of maps promises to improve reconciliation of conservation and development of the Amazon borderlands shared by Ucayali, Peru and Acre, Brazil. However, technical meetings, cartography, and transboundary professional networks alone cannot mitigate the socio-environmental impacts and reduce inequality and injustice in the borderlands. Instead, this new international alliance of geospatial technology professionals, the GTGTA-U, must be cognizant of the power of maps (Harley, Laxton 2002) and use their technical expertise to influence policy makers to invest in a desperately needed improvement in borderland geographic information. Indeed, following transboundary political ecology, the transboundary nature of the GTGTA-U allows members of the group to motivate their country and region to update and improve their own geographic information in order to be a better inter-

national neighbor. The GTGTA-U should be a part of the process of updating and improving information not only to ensure quality and transboundary complentarity, but also to guarantee participation of local people and local knowledge. The simultaneous participation of policy makers and local people can help overcome the historic tendency to imagine the Amazon borderlands as a blank slate and improve the quality, resolution, and utility of geographic information. In addition, participation can provide local people with spatial tools to contest the unjust imposition of projects on inhabited or sensitive landscapes. Ultimately, improved transboundary mapping efforts with local participation and official approbation has the potential to reduce social injustice and inequality while reconciling conservation and development in the historically marginalized and poorly understood Amazon borderlands.

Bibliografía

Agnew, J., "Borders on the mind: re-framing border thinking", *Ethics and Global Politics*, vol. 1, no. 4, pp. 175-191, Co-Action Publishing, Uppsala, 2008.

Appling, G. and Salisbury, D.S., "Analysis of the Socio-Environmental Impacts of Amazonian Roads: the Puerto Esperanza to Iñapari Road in Peru", Poster to be presented at SouthEastern Division of the Association of American Geographers Annual Meeting, November 18-20, 2012, Asheville, NC, 2012.
Available for download: <http://blog.richmond.edu/dsalisbury/maps/>.

Augelli, J.P., "Nationalization of Dominican borderlands", *Geographical Review*, vol. 70, no. 1, pp. 19-35, American Geographical Society, Brooklyn, 1980.

Baud, M., "State-building and borderlands" in *Fronteras: Towards a borderless Latin America*, eds. P. van Dijck, A. Ouweneel and A. Zoomers, pp. 41-82, Center for Latin American Research and Documentation (CEDLA), Amsterdam, 2000.

Brown, J.C. and Purcell, M., "There's nothing inherent about scale: political ecology, the local trap, and the politics of development in the Brazilian Amazon", *Geoforum*, vol. 36, no. 5, pp. 607-624, Elsevier, Amsterdam, 2005.

Duffy, R., "The potential and pitfalls of global environmental governance: The politics of transfrontier conservation areas in Southern Africa", *Political Geography*, vol. 25, no. 1, pp. 89-112, Elsevier, Amsterdam, 2006.

———, "Peace Parks: The Paradox of Globalisation", *Geopolitics*, vol. 6, no. 2, pp. 1-26, Taylor and Francis, New York City, 2001.

Hagen, J. and Diener, A.C., "Introduction: Borders, Identity, and Geopolitics", *Borderlines and borderlands : political oddities at the edge of the nation-state*, eds. A.C. Diener and J. Hagen, pp. 1-14, Rowman and Littlefield Publishers, Lanham, Maryland., 2010, 281 pp.

Häkli, J. and Kaplan, D.H., "Learning from Europe? Borderlands in social and geographic context", *Boundaries and place: European borderlands in geo-*

graphical context, eds. D.H. Kaplan and J. Häkli, pp. 1-17, Rowman and Little-field Publishers, Lanham, Maryland , 2002, 286 pp.

Harley, J.B. and Laxton, P., "The new nature of maps: essays in the history of cartography", The Johns Hopkins University Press, Baltimore, Maryland, 2002, 352 pp.

Hecht, S.B., "The Last Unfinished Page of Genesis: Euclides da Cunha and the Amazon", *Historical Geography*, vol. 32, pp. 43-69, Association of American Geographers, Washington, 2004.

Jump, J., Salisbury, D.S. and Vadjunec, J.M., "Roads and development in the Peruvian Amazon: Predicting Land-Use/Cover Change near Pucallpa, Peru", Poster presented at the Association of American Geographers Conference, Seattle, Washington, 2011.

Kaplan, D.H. and Häkli, J., "Boundaries and place: European borderlands in geographical context", Rowman and Littlefield Publishers, Lanham, Maryland, 2002, 304 pp.

King, B. and Wilcox, S., "Peace Parks and jaguar trails: transboundary conservation in a globalizing world", *GeoJournal*, vol. 71, no. 4, Springer, New York City, pp. 221-231, 2008.

Newman, D., "The lines that continue to separate us: borders in our 'borderless' world", *Progress in Human Geography*, vol. 30, no. 2, pp. 143-161, Sage, London, 2006.

Newman, D. and Paasi, A., "Fences and Neighbours in the Postmodern World: Boundary Narratives in Political Geography", *Progress in Human Geography*, vol. 22, no. 2, pp. 186-207, Sage, London, 1998.

Offen, K.H., "Historical political ecology: an introduction", *Historical Geography*, vol. 32, pp. 19-42, Association of American Geographers, Washington, 2004.

Peet, R., Robbins, P. and Watts, M., "Global political ecology", Routledge, New York, 2011, 464 pp.

Robbins, P., "Political Ecology in Political Geography", *Political Geography*, vol. 22, no. 6, pp. 641-645, Elsevier, Amsterdam, 2003.

———, *Political ecology: a critical introduction*, Blackwell Publishing, Malden, MA, 2004, 296 pp.

Rumley, D. and Minghi, J.V., *The Geography of border landscapes*, Routledge, New York, 1991, 352 pp.

Salisbury, D.S., Flores de Melo, A.W., and Balbin Ordaya, B., "Informe técnico final: Taller de Integración de Datos y Desarrollo de Capacidades Técnicas para Mitigar los Desafíos Ambientales en la Amazonía Peruana y Brasileña", Unpublished final report for Instituto Panamericano de Geografía e Historia, 2012. Available at: <http://www.ipgh.org/Secciones-Nacionales/ESTADOS-UNIDOS/ Files/TallerTransfronterizo201206ReporteFinal20120618.pdf> (Accessed August 31, 2012).

Salisbury, D.S., Borgo Lopez, J. and Vela Alvarado, J.W., "Transboundary political ecology in the Amazon borderlands: History, culture, and conflicts of the borderland Asháninka", *Journal of Cultural Geography*, vol. 28, no. 1, pp. 147-177, Taylor and Francis, New York City, 2011.

Salisbury, D.S., Pérez Alván, C.L., Antelo Gutiérrez, L.A. and Vela Alvarado, J.W., "Fronteras Vivas or Dead Ends? The Impact of Military Settlement Projects in the Amazon Borderlands", *Journal of Latin American Geography*, vol. 9, no. 2, pp. 49-71, Conference of Latin Americanist Geographers, Austin, 2010.

Schmink, M. and Wood, C.H., "Contested frontiers in Amazonia", Columbia University Press, New York, 1992, 387 pp.

Sneddon, C. and Fox, C., "Rethinking transboundary waters: A critical hydropolitics of the Mekong basin", *Political Geography*, vol. 25, no. 2, pp. 181-202, Elsevier, Amsterdam, 2006.

Sturgeon, J.C., "Border practices, boundaries, and the control of resource access: A case from China, Thailand and Burma", *Development and Change*, vol. 35, no. 3, pp. 463-484, International Institute of Social Studies, The Hague, 2004.

Truett, S. and William P. Clements, Center for Southwest Studies, "Fugitive landscapes: the forgotten history of the U.S.-Mexico borderlands", Yale University Press, New Haven, 2006, 272 pp.

Turner, N.J., Davidson-Hunt, I.J. and O'Flaherty, M., "Living on the edge: Ecological and cultural edges as sources of diversity for social-ecological resilience", *Human Ecology*, vol. 31, no. 3, pp. 439-461, Springer, New York City, 2003.

Wendl, T. and Rösler, M., "Introduction: frontiers and borderlands. The rise and relevance of an anthropological research genre", *Frontiers and borderlands: the rise and relevance of an anthropological research genre; Frontiers and borderlands anthropological perspectives*, eds. M. Rösler and T. Wendl, pp. 1-30, Peter Lang, Frankfurt am Main, New York, 1999, 239 pp.