

“Scale” as Cultural Attribution: Anthropological Contributions in Political Ecology Studies

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Abstract

The environment is as place where people live while providing various possibilities to meet their needs. Humans are connected to nature through culture by a system of symbols, meanings, and values. The problematic relation between humans and the environment currently known as “hybrid complexity” involves another analytical tradition such as political economy, symbolic anthropology, and historical anthropology. Political ecology as a study with a transdisciplinary perspective try to gain an explanation about the relationship between humans and the environment not in a static and harmonious fabricate, but in chaotic (noisy and complicated) interconnections. The basic assumption of the study of political ecology is the issue of inequality: the existence of asymmetric forces that produce socio-economic inequality, and these problems are present in the relation between human life and the environment. Humans relate to the environment through a diverse network of interests at various levels and multi-capacities. The scale is one of the important concepts that deserve scrutiny in order to understand the workings of the political ecology approach. The scale is the “heuristic terminology” of culture. Humans are the main element of the scale that connects culture to its reality and as a feature of culture itself. Thus, the scale can be understood as a cultural attribution of the unit of explanation which includes the size, level, and relations of events and actions that mediate human relations and the environment of natural phenomena and socio-cultural phenomena.

Keywords: *scale, cultural attribution, anthropology, political ecology*

Introduction

Ecological studies in anthropology which attempt to look at the relationship between humans and the environment cannot simply be understood as a description of cultural adaptation to environmental determinations. Such clusters of perspectives, which purport to produce a ‘possibilist’ picture of various socio-cultural morphologies, are largely included in cultural ecology studies (see Dove & Carpenter, 2008; Haenn & Wilk, 1988). Ecological studies in anthropology also do not stop at ecosystem claim that human-environment relationships are systematically assumed to have a self-regulating nature that is tied to ecosystem conditions.

Aletta Biersack (1999) aroused the attention of ecological anthropology studies with the concept of “new ecology”, that the problematic relationship between humans and the environment is a “hybrid complexity”. Biersack (1999) emphasized that the complexity of the relationship between humans and the hybrid environment is an ecological context that is

connected to other analytical traditions, such as political economy, symbolic anthropology, and historical anthropology. Biersack (1999) highlights the complexity of a new ecology with analytical reasoning which includes symbolic ecology, historical ecology, and political ecology.

The relationship between humans and the environment involves economic aspirations with socio-political tendencies towards the environment (Roseberry, 1998; Wolf, 2010). There has been a shift in assumptions in the study of ecological anthropology which now sees the relationship between humans and the environment as not neutral or assuming absolute environmental determination. The environment should be seen as a "politicized environment" reality that involves many actors with multi-interests at the local, regional and global levels (Peet & Watts, 2004).

At the end of the 20th century, environmental problems were considered to remain unsolved when understood separately by each scientific background, and also because they ignored the socio-cultural context in which these environmental problems occurred. Until now, explanations of the environmental crisis have experienced an irrefutable deadlock. It seems that it is still a common problem for scientists to ask questions about environmental problems with new ways of thinking (Escobar, 1999; Forsyth, 2003). The environmental crisis is now also a crisis of environmental identity itself. The meaning of the environment has undergone a shift in line with historical history which is covered by accompanying cultural, socio-economic and political problems (Escobar, 1999).

Furthermore, about how environmental problems in relation to the socio-economic life of society become "situated thinking" (situated science). As stated by Rocheleau (2008), it is unnecessary and perhaps inappropriate for scientists to choose between the roles of academics, practitioners and the interests of policy makers in explaining the environmental problems that occur. In fact, it is appropriate to abandon the existing dichotomy and then express the aspirations for positioning the interests in question in a network of understanding, although not forgetting to be selective in describing a series of environmental problems.

Political ecology is an approach to socio-environmental analysis that has gained momentum over the past several decades in the fields of anthropology, development studies, and environmental history (Benjaminsen & Robbins, 2015). Political ecology emerged in the 1970s based on Marxist criticism of Malthus's ideas in environmental thought. According to Cancela (2019), political ecology is "a political, intellectual and cultural movement that is interested in the concrete human being as part of nature" (p. 418). Political ecology is formed as a meeting space for various fields of knowledge with a critical perspective on the theoretical and political contradictions of modernity (M. V. Cancela, 2019a). Political ecology builds analytical, theoretical, and epistemological frameworks beyond dominant economic theories and tends to bring about major changes in dominant discourses/practices (M. V. Cancela, 2019a).

Political ecology has also long involved ethical issues (Sundberg, 2015). Historically, normative questions about global inequality and social-ecological justice have dominated research that uses political ecology as an analytical tool. However, Robbins (2020) states that political ecology must look for ways to change, improve, innovate, restore things that it considers to be dysfunctional. Don't always convey criticism. In such an abundant literature, it is not easy to find a concise characterization of political ecology. However, there are

several types of political ecology which are differentiated according to the scale of study. First, regional political ecology which has been widely used by academics (Larsen, 2016; I. McKinnon & Hiner, 2016). Second, urban political ecology which emphasizes a particular approach to considering cities across a number of themes—climate change, sanitation, and infrastructure—uses a more explicitly political approach (Nzeadibe et al., 2018). Then several studies questioned the scales used in political ecology and offered new approaches. For example, Miller & McGregor, 2019 which offers a world regional approach. Even I. McKinnon & Hiner (2016) say that the emergence of urban political ecology splits the literature into another geographical binary so that the use of the concept of 'regional' becomes inconsistent and unclear.

Method

The discussion in this article is described using a library research method based on anthropological contributory representations related to the study topic. Literary research becomes the basis for thinking in building new theoretical models or conceptualizations. However, it is important to note that there are various approaches to library research. For this reason, the description in this paper uses the 'critical-integrative review' approach as one of the approaches in the literature research landscape. This approach is useful in presenting theoretical evaluations by assessing, criticizing and synthesizing which allows for the presence of new theoretical frameworks and perspectives as well as the competition between theoretical views that accompany them. The 'critical-integrative review' approach examines the content of theoretical narratives discussed or conceptualized differently by various groups of scholars, and their development over time involving multiple scientific traditions (see Torraco, 2005; Wong et al., 2013; Snyder, 2019).

Results and Discussion

The term of ecology is now occupied as a technical terminology that identifies the space for relations between humans and their environment. Environmental conditions that are constantly changing are also seen as a result of the relationship between humans and other species through the interests of humans (Anthropocene). Political ecology as a theoretical phrase appears in the idea of studying humans and their interests (interest of needs) and the environment with its supporting capacities (capabilities) as things that are inherent in political dynamics (Peet & Watts, 2004). Political ecology can be said to be a continuation of the study of cultural ecology.

Political ecology in anthropological studies involves attention to the interrelationship of economic interests, politics, and environmental conditions. As it developed, there were many definitions and explanations of political ecology. However, in this paper we propose an understanding of political ecology as an approach in the study of ecological anthropology that combines attention to ecological issues and broad political-economic interests. The political ecology approach pays attention to the dialectic between society and environmental resources and also the dialectic of social class in a community group (Peet & Michael Watts., 2004; Peluso, 1993; 2017).

Politized Environment

Political ecology began to develop since the late 1970s and early 1980s. Political ecology is a study with a trans-disciplinary perspective that seeks to examine the relationship between humans and the environment not in a static and harmonious relationship, but rather in a chaotic (noisy and complicated) way. The basic assumption of political ecology studies is the problem of inequality, namely the existence of asymmetric forces that produce socio-economic disparities, and this problem is present in the relationship between human life and the environment (see Peet & Michael Watts., 2004; Peluso, 1993, 2017; Wolf, 2010).

Inequality as a basic assumption in political ecology studies is not an ahistorical theoretical entity. The cultural historical idea derived from Wolf's (2010) perspective which emphasized by Roseberry (1988) as one of the important analytical domains in the study of political ecology, namely about the residue of capitalism on people's lives and environmental conditions. Roseberry (1988:162) emphasized that the socio-economic conditions of society are closely connected with a very long historical history, and that includes four (4) main things: 1) Colonialism; 2) Development of Power Authority; 3) International Trade; and 4) State Formation.

Thus, asymmetric forces are formed through historical events that accumulate as an endemic background of ecological inequality (conservative and exploitative) to socio-economic inequality (sustainability and marginalization) (Peet & Watts, 2004; Peluso, 1993, 2017; Roseberry, 1998). Ecological and economic conditions develop in different ways and at different speeds. Ecological (carried) capacity as a human life support system is now being questioned, and this is a worrying condition (Peet & Watts, 2004). The meaning of terms such as environmental "sustainability," for example, is now being questioned and contested (Peet & Watts, 2004). Whatever its semantic ambiguity, sustainability has the effect of connecting three relatively inseparable discourses: First, that of the global environmental crisis; Second, concerns about global demographics (Malthusian scourge); Third, regarding the uproar about global economic inequality related to the accumulation of natural resources (Peet & Watts, 2004).

Political ecology as a perspective in the study of ecological anthropology thus seeks to understand the social and political conditions that surround the causes, experiences and management of environmental problems. Treatise on environmental problems is seen as a phenomenological inter-relation of biophysical processes, human needs, and the broader political system. Inquiry in political ecology seeks to examine political forces (macro and micro), the conditions and consequences of environmental change, specific aspects of environmental landscape change, and the effects of environmental change on and from socio-economic and political conditions. One attributive note that is worth paying attention to is that political ecology as a critical methodology plays an important role in efforts to achieve social justice over environmental problems on a global scale.

Political Ecology as a Scientific Construction

There so many scientists in political ecology concern to aim at highlighting the paradox between environmental "realism", namely the firmness of the view of "biophysical reality" which guides explanations for efforts to integrate biophysical predictions as part of socio-economic, cultural and political construction (Forsyth, 2003). As states by Neumann (2005),

the environmental crisis in the view of political ecology is a scientific construction resulting from the intertwining of understanding cultural ecology with political economy.

Political ecology as a scientific construction that aims to overcome the deadlock in explaining the problematic connection between the environmental crisis and the sustainability of human life shows at least two important, and increasingly unavoidable, anxieties. First, explanatory efforts that negate the intervention of social and political aspects of the environmental crisis seem to have eroded adequate explanatory power. This deadlock in explanation is caused by the use of environmental biophysical conditions as the central cause of environmental problems and eliminating the existence of humans who are connected to the environment through their various interests. Second, the involvement of issues of human interest in the environment that have political tendencies actually produces a series of asymmetric explanations. The proposed explanation often becomes a kind of trial that convicts humans of being responsible for environmental degradation (see Blaikie & Brookfield, 1987; Bryant, 1992; Forsyth, 2003; Zimmerer, 2000).

The determination of such a verdict is often associated with a background of poverty and threats to the sustainability of livelihoods in a community group. The defendant was stated to have appropriated environmental exploitation behavior which had consequences for environmental degradation. Therefore, efforts should be made to overcome these two problematic perspective orientations. One way is to explore the network of explanatory descriptions of the relationship between environmental science and society to avoid replicating dichotomous explanation chains. In this way, it will enable a more comprehensive explanation of the relationship between biophysical reality which is intertwined with social, economic and cultural interests as politically situated matters.

Scale: Cultural Attributions of Human – Environmental Relations in Political Ecology

Humans relate to the environment through a very diverse network of interests at various levels and in multi-capacities. Scale is an important concept that is worth paying attention to in order to understand how the political ecology approach works. Scale is a relational unit of measurement that can be a basis for explanation in describing human interests in the environment, including the implications that accompany it. Each model of understanding scale will reflect some of the experiences of the social and political frames resulting from the process of scientific investigation. The meaning of scale can be explained "transitively" (as a social construction and its meaning is unstable), and "intransitively" (referring to underlying reality and its meaning is considered stable) (Bhaskar, 1975).

The concept of scale can then be classified into the understanding of empiricism (sensory experience); actualism (assignment of events to experience); and realism (a fundamental assessment of events and experiences). Through such classifications, scale becomes an anthropological attribution of short-term indications of long-term transitions; and scales as transitive symptoms reflect partial experiences of complex biophysical events (Jackson, 1997). Apart from that, scale also includes the dimensions of space and time which often create tensions in the analysis of these two dimensions. Scale in the spatial dimension is translated as "place" or "region" which has long been part of political ecology analysis to explain the relationship between humans and the environment (Zimmerer & Bassett, 2003).

The ongoing series of efforts in developing the study of political ecology as a scientific construct reflects the merits of theoretical innovation in the understanding of the concept of

scale (Swyngedouw, 1997, 2004). Blaikie & Brookfield (1987:17) write that the complexity of human and environmental interactions requires an approach that includes an explanation of the differences between scale as "geographical features", and scale as a hierarchy of socio-economic organization: human groups, households, villages, regions, state, world, and so on. Scale is not only a unit of explanation of humans as actors or their relationship to biophysical processes in the environment. Scales should be said to be part of social construction, historically contingent, and politically contested (see Brown & Purcell, 2005; Lefebvre, 1991; Manson, 2008; McCarthy, 2005; Sayre, 2005; Swyngedouw & Heynen, 2003).

Scales becomes problematic when they are only used as general descriptive units, not as reflective theoretical concepts (Swyngedouw & Heynen, 2003; Zimmerer & Bassett, 2003). It is necessary to identify between geographic scale which is defined as spatial conditions and scale as a hierarchy of socio-economic organization (Brown & Purcell, 2005). The importance is to anticipate and avoid conceptual confusion, for example regarding the issue of "locality" as a cultural articulation of scale - which is often associated with hierarchies of agency (in society) (see Marston, 2000).

Scale in a cultural sense can be interpreted as a unit of explanation that is local and has qualities inherent in it (see Neumann, 2005: 85–92). Identifying a multidisciplinary conception of scale has now become a necessity in order to produce a political ecology approach that does not just stick to one scientific axis (Manson, 2008; Sayre, 2005). This kind of desire is said by (Sayre, 2005: 280-81) as an epistemological moment towards the conception of scale which is "naturally" related to ecological processes and interactions that exist between humans and the environment (temporal and spatial resolution); then "politically" refers to "size and duration". Thus, scale can be understood as a unit of explanation of size, level and relationships in events and actions that mediate between humans and the environment, - then simultaneously understood as a natural and socio-cultural phenomenon.

Sayre (2005) says that scale is something that moves along a continuum of realism and constructionism: from physical conditions and biological systems in the environment to environmental systems that have implications for social, cultural and policy systems. Scale thus contingently departs from and leads to instability, emergence, absence, shifting equivalence, uncertainty, and dependence on many contingent features of scale. Meanwhile, understanding of the concept of scale in political ecology is at least focused in three theoretical discussion clusters: First, about the interaction of power, agency and scale; Second, scale as a socio-environmental process; Third, about scale and network of relationships. Power relations in scale features are said to be central to the framework for political ecology (Molle, 2007; Swyngedouw, 2004).

Furthermore, the feature of scale in political ecology is about the centrality and unity of biophysical processes to socio-cultural scale construction (McCarthy, 2005). For example, ecological pressure on the interests of economic production by society. Meanwhile, Zimmerer, 2000: 153) suggests that political ecology focuses on socio-environmental scaling that occurs in the process of biogeographic fusion which is broadly connected to socio-cultural life. Ideas like this pay attention to the concept of scale being a measure of environmental capacity that biophysically shapes political-economic dynamics (Zimmerer, 2000; Zimmerer & Bassett, 2003).

Scale is thus a source of hybridity and reconstitution between nature and society (Natter & Zierhofer, 2002; Swyngedouw & Heynen, 2003). Various terms are presented by political ecologists to capture the dialectical character of the scale of social and environmental change, such as socio-ecological, socio-environmental, and socio-natural (Heynen, 2003; Swyngedouw & Heynen, 2003; Zimmerer, 2000)). This terminology is intended to mediate social and ecological, material and symbolic, spatial and temporal dynamics which collectively constitute the analytical focus of scale in political ecology.

The concept of scale in political ecology can then be said to be intended to explain the relationship and network quality of spatial configuration with socio-environmental dynamics (Natter & Zierhofer, 2002; Swyngedouw, 2004; Zimmerer & Bassett, 2003). Networks of relations over scales are then also considered to articulate territory as a result of landscape configuration by human and non-human actors, and are subject to various spatial and temporal interpretations (Swyngedouw, 2004). This kind of approach carries an understanding of people's living strategies in a natural landscape without ignoring the sustainability of biodiversity, and this is what is said to be a network of socio-environmental relations. Thus, methodologically, scale in political ecology is a social construction, relational, contingent, and contested within the framework of dialectical power relations between society and the environment at various levels.

Conclusion

The environment is a means or place for human life and at the same time provides various possibilities for developing their needs. Humans make various efforts to anticipate, respond and deal with changes in their environment to ensure their survival is maintained. Humans never directly face their environment (nature), humans always approach nature through culture, through various systems of symbols, meanings and values. Culture in this case is a reflection of human attitudes and behavior towards the environment (Alland, 1975; Attfield, 2010; Escobar, 1999; Nasution, 2013; Poerwanto, 2008; Sutton & Anderson, 2004).

In connection with scale as one of the main concepts in the study of political ecology, it can be said that scale is the "heuristic terminology" of culture. Humans are the main element of the scale that is the link between culture and reality and as a feature of culture itself. Thus, scale can be understood as a cultural attribution regarding a unit of explanation which includes size, level and relationships in events and actions that mediate human and environmental relations as well as natural and socio-cultural phenomena. Scale is a symbolic device for everything that is material, behavioral and ideational. Especially in the context of political ecology, scale reflects the relationship between humans and the environment with the accompanying political-economic interests. The cultural translation of the scale places the landscape of analysis of the symptoms of environmental and cultural change in a "global-local" explanation, along with a network of descriptions that are "transitive-intransitive". Thus, scale as a cultural attribution is able to provide an explanation of the relationship between humans and the environment which is historically contingent and politically oscillating.

References

- Alland, A. J. (1975). Adaptation. *Annual Review of Anthropology*, 4, 59–73.
- Attfield, R. (2010). *Etika Lingkungan Global*. Kreasi Wacana.
- Benjaminsen, T. A., & Robbins, P. (2015). Nordic political ecologies. *Norsk Geografisk Tidsskrift*, 69(4), 161–169.
<https://doi.org/https://doi.org/10.1080/00291951.2015.1059879>
- Bhaskar, R. (1975). *A Realist Theory of Science*. Leeds Book.
- Blaikie, P., & Brookfield, H. (1987). *Land and Society*. Methuen.
- Brown, J. C., & Purcell, M. (2005). There's Nothing Inherent About Scale: Political Ecology, the Local Trap, and the Politics of Development in the Brazilian Amazon." *Geoforum*, 36, 607–624.
- Bryant, R. L. (1992). Political Ecology: An Emerging Research Agenda in Third-World Studies. *Political Geography*, 11(1), 12–36. [https://doi.org/10.1016/0962-6298\(92\)90017-N](https://doi.org/10.1016/0962-6298(92)90017-N)
- Cancela, M. V. (2019a). Environment and Latest Trends in Social Sciences. In J. L. Sarasola Sánchez-Serrano, F. Maturo, & Š. Hošková-Mayerová (Eds.), *Qualitative and Quantitative Models in Socio-Economic Systems and Social Work (Studies in Systems, Decision and Control)* (Vol. 208). <https://doi.org/10.1007/978-3-030-18593-0>
- Cancela, M. V. (2019b). Environment and Latest Trends in Social Sciences. In J. L. S. Sánchez-Serrano, F. Maturo, & Š. H.-M. (Eds.) (Eds.), *Qualitative and Quantitative Models in Socio-Economic Systems and Social Work (Studies in Systems, Decision and Control)*. <https://doi.org/https://doi.org/10.1007/978-3-030-18593-0>
- Dove, M. R., & Carpenter, C. (2008). "Major Historical Currents in Environmental Anthropology." In *Environmental Anthropology: A Historical Reader*. Blackwell Publishing.
- Escobar, A. (1999). After Nature Steps to an Antiessentialist Political Ecology. *Current Anthropology*, 40(1), 1–30. <https://doi.org/10.1086/515799>
- Forsyth, T. (2003). *Critical Political Ecology: The Politics of Environmental Science*. Routledge.
- Greenberg, J., & Park, T. (1994). Political Ecology. *Journal of Political Ecology*, 1(1), 1–12.
- Haenn, N., & Wilk, R. (Eds.). (2006). *The Environment in Anthropology: A Reader in Ecology, Culture, and Sustainable Living*. New York University Press.
- Heynen, N. C. (2003). The Scalar Production of Injustice within the Urban Forest. *Antipode* (Vol. 35, Issue 5, pp. 980–998). <https://doi.org/10.1111/j.1467-8330.2003.00367.x>
- Biersack, A. (1999). Introduction: From the "New Ecology" to the New Ecologies. *American Anthropologist*, 101(1), 5–18. <http://www.jstor.org/stable/683337>
- Jackson, C. (1997). Women in Critical Realist Environmentalism: Subaltern to the Species? *Economy and Society*, 26(1), 62–80.
- Larsen, S. C. (2016). Regions of Care: A Political Ecology of Reciprocal Materialities. *Journal of Political Ecology*, 23(1), 159–166.
<https://doi.org/https://doi.org/10.2458/v23i1.20187>
- Lefebvre, H. (1991). *The Social Production of Space*. Blackwell Publishing.
- Manson, S. M. (2008). Does Scale Exist? An Epistemological Scale Continuum for Complex Human-Environment Systems. *Geoforum*, 39(2), 776–788.
<https://doi.org/10.1016/j.geoforum.2006.09.010>
- Marston, S. A. (2017). The Social Construction of Scale. In *Politics: Critical Essays in Human Geography* (Vol. 24, pp. 297–320). <https://doi.org/10.4324/9781315246512-17>

- McCarthy, J. (2005). Scale, Sovereignty, and Strategy in Environmental Governance. *Antipode* (Vol. 37, Issue 4, pp. 731–753). <https://doi.org/10.1111/j.0066-4812.2005.00523.x>
- McKinnon, I., & Hiner, C. C. (2016). Does the Region Still have Relevance? (Re)considering “regional” Political ecology. *Journal of Political Ecology*, 23(1), 115–122. <https://doi.org/https://doi.org/10.2458/v23i1.20182>
- Miller, F. P., & McGregor, A. (2019). Rescaling political ecology? World regional approaches to climate change in the Asia Pacific. *Progress in Human Geography*, 1–20. <https://doi.org/10.1177/0309132519849292>
- Molle, F. (2007). Scales and Power in River Basin Management: The Chao Phraya River in Thailand. *Geographical Journal*, 173(4), 358–373. <https://doi.org/10.1111/j.1475-4959.2007.00255.x>
- Natter, W., & Zierhofer, W. (2002). Political Ecology, Territoriality and Scale. *GeoJournal* (Vol. 58, Issue 4, pp. 225–231). <https://doi.org/10.1023/B:GEJO.0000017953.56964.d1>
- Neumann, R. (2005). *Making Political Ecology*. Hodder Arnold.
- Nzeadibe, A. C., Uchem, R. N., & Nzeadibe, T. C. (2018). Beyond “Traditional Geographies”: Integrating Urban Political Ecology and Cultural Sustainability into Undergraduate Geographical Education in Nigeria. *Journal of Environmental Education*, 49(3), 228–241. <https://doi.org/10.1080/00958964.2017.1391162>
- Peet, R., & Watts, M. (Eds.). (2004). *Liberation Ecologies: Environment, Development, Social Movements* (2nd ed.). Routledge.
- Peluso, N. L. (1993). “Traditions” of Forest Control in Java: Implications for Social Forestry and Sustainability.” *Global Ecology & Biogeography Letters*, 3(4–6), 183–157. <https://doi.org/10.2307/2997766>
- Peluso, N. L. (2017). Whigs and hunters: the origins of the Black Act, by E.P. Thompson. *Journal of Peasant Studies*, 44(1), 309–321. <https://doi.org/10.1080/03066150.2016.1264581>
- Poerwanto, H. (2008). *Kebudayaan dan Lingkungan dalam Perspektif Antropologi*. Pustaka Pelajar.
- Robbins, P. (2020). Is less more ... or is more less? Scaling the Political Ecologies of the Future. *Political Geography*, 76. <https://doi.org/10.1016/j.polgeo.2019.04.010>
- Rocheleau, D. E. (2008). Political Ecology in the Key of Policy: From Chains of Explanation to Webs of Relation. *Geoforum*, 39(2), 716–727. <https://doi.org/10.1016/j.geoforum.2007.02.005>
- Roseberry, W. (1998). Political Economy. *Annual Review of Anthropology*, 17(1988), 161–185. <http://www.jstor.org/stable/2155910>
- Sayre, N. F. (2005). Ecological and Geographical Scale: Parallels and Potential for Integration. *Progress in Human Geography*, 29(3), 276–290. <https://doi.org/10.1191/0309132505ph546oa>
- Snyder, H. (2019). Literature Review as A Research Methodology: An Overview and Guidelines. *Journal of Business Research*, 104(August), 333–339. <https://doi.org/10.1016/j.jbusres.2019.07.039>
- Sundberg, J. (2015). Ethics, Entanglement and Political Ecology. *The Routledge Handbook of Political Ecology*, August, 117–126. <https://doi.org/10.4324/9781315759289.ch8>
- Sutton, M. Q., & Anderson, E. (2004). *Introduction to Cultural Ecology*. AltaMira Press.
- Swyngedouw, E. (1997). Neither Global nor Local: “Glocalization” and The Politics of Scale. In K. Cox (Ed.), *Spaces of Globalization: Reasserting the Power of The Local* (pp. 137–166). Guilford Press.

- Swyngedouw, E. (2004). Scaled Geographies: Nature, Place and the Politics of Scale." Dalam Sheppard, E. dan McMaster, R.B. (eds.). In *Scale and Geographic Inquiry*. Blackwell Publishing.
- Swyngedouw, E., & Heynen, N. C. (2003). Urban Political Ecology, Justice and The Politics of Scale. *Antipode*, 35(5), 898–918. <https://doi.org/10.1111/j.1467-8330.2003.00364.x>
- Torraco, R. J. (2005). Writing Integrative Literature Reviews: Guidelines and Examples. *Human Resource Development Review*, 4(3), 356–367. <https://doi.org/10.1177/1534484305278283>
- Wolf, E. R. (2010). *Europe and the People without History*. University of California Press.
- Wong, G., Greenhalgh, T., Westhorp, G., Buckingham, J., & Pawson, R. (2013). RAMESES publication standards: Meta-narrative reviews. *Journal of Advanced Nursing*, 69(5), 987–1004. <https://doi.org/10.1111/jan.12092>
- Zimmerer, K.S. (2000). Rescaling Irrigation in Latin America: The Cultural Images and Political Ecology of Water Resources. *Ecumene*, 7(2), 150–175. <https://doi.org/10.1191/096746000701556680>
- Zimmerer, K.S., & Bassett, T.J. (2003). Approaching Political Ecology: Society, Nature, and Scale in Human–Environment Studies. *Political Ecology: An Integrative Approach to Geography and Environment-Development Studies*, 1–25. New York: Guilford Press.