Connections and contradictions
Eric R. Wolf and the political ecology of value

Antonio Maria Pusceddu

Abstract: Eric Wolf is conventionally credited with reframing the term "political ecology" through the lens of political economy in the early 1970s. However, he never engaged with what by the 1980s was already a growing transdisciplinary field. An inspiring book in the genealogy of political ecology, *Europe and the people without history* said little about the emerging approach. Nevertheless, I argue that despite its limited focus on ecological issues, the book's vision and method can still provide insights for envisioning an anthropologically minded political ecology of value that combines the heuristic skills of ethnographic research with the systemic analysis of global capitalist-driven environmental change. To this end, the article brings Wolf's strategic use of Marxian frameworks into conversation with the Marxian ecological critique of value.

Keywords commodity form, ecological crisis, ecological Marxism, environmental anthropology, global capitalism, mode of production, value theory

There is a certain irony in the fact that the author widely credited with redefining the term "political ecology," Eric R. Wolf (Biersack 2006: 3; Martínez Alier 2002: 71; Robbins 2012: 14; Watts and Peet 2004: 6), never seriously engaged with what was already a growing and established transdisciplinary field by the 1980s. It is even more ironic that a book as influential as *Europe and the people without history* (*EPWH*[1]) in the genealogy of political ecology says little about political ecology itself. The term only appears once in a footnote (*EPWH*: 48). It is also true that, as Biersack (2006: 6) reminds us, "although Wolf was the first to use the term political ecology in a neo-Marxist sense, neo-Marxist political ecology was developed more by geographers than by anthropologists." Despite *EPWH*'s scant interest in environmental issues, its analytical frameworks and insights into the historical and global dimensions of society-environment interactions have continued to inspire research in political ecology. Consider, for example, two contributions to a volume devoted to "exploring the influence of Eric R. Wolf" (Schneider and Rapp 1995). Rosenberg's (1995) examination of the role of housewife activists in the environmental justice movement and Heyman's (1995) analysis of labor and environmental conflict offer two instances of Wolf's inspiring work in thinking about the multiscalar dimensions of environmental politics.[2] In the opening editorial of the *Journal of Political Eco-*

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logy, Greenberg and Park (1994: 7) characterize *EPWH* as the pathbreaking work that—overcoming the many limitations of macro approaches such as world system theory—pushed social scientists to "explore the complex interaction between local populations and the larger, even global political economies in which they are embedded."

Building on such a diverse collection of Wolf-inspired political ecology, this article seeks to unpack the relevance of *EPWH* for critical environmental studies, tracing Wolf's seminal critique of adaptationist approaches and bringing his Marxian framework into conversation with ecological Marxism and the Marxian-inspired ecological critique of value (Burkett 2014). I argue that despite *EPWH*'s limited focus on ecological issues, its vision and method, and the strategic use of Marxian concepts, can still provide productive insights for an anthropologically minded political ecology of value—that is, a political ecology that pays greater attention to the value form in grasping the diverse and multiscalar articulations of capitalist social metabolism. Thomas Hylland Eriksen remarked (2010: ix) that *EPWH* "is even more important today than it was when it was written." It was a groundbreaking book that offered an impressively articulated and ethnographically rich fresco of the emergence of global capitalism. The aim of this article is to discuss the continuing relevance of *EPWH*'s methodological insights through a closer engagement with some undeveloped theoretical assumptions regarding the society-nature metabolism under capitalism. I argue that the Marxian value-form approach to nature and capitalism can help us complement the limitations of the mode of production (MoP) in grappling with the ecological implications of capitalist expansion.

The article is organized as follows. First, I contextualize Wolf's use of Marx within the wider debate of his time, stressing the neglect of the ecological dimensions of Marx's thought. Second, I examine Wolf's connection to political ecology starting with his earlier engagement with human-environment relations and highlighting the convergence of his critique of adaptationist approaches with the critical underpinnings of political ecology (Watts 2015). Nevertheless, I also point out the gradual marginalization of ecological concerns from Wolf's work in favor of a Marxian-oriented political economy approach. The third section looks at connections and contradictions as two fundamental conceptual and methodological tenets of *EPWH*. It brings Wolf's analytical strategies into conversations with eco-Marxist "environmental crisis theory" (Burkett 2014), suggesting a possible way of combining Wolf's approach to capitalist expansion with the Marxian-inspired ecological critique of value. The latter rests on the fundamental assumption that the "the alienation of nature and the alienation of human production [are] two sides of a single contradiction" (Foster 2000b: 39). In the conclusion I summarize the argument regarding the legacy, potential and limitations of *EPWH* for an anthropologically minded political ecology that combines the heuristic abilities of ethnographic research with the systemic analysis of global capitalist-driven environmental change.

The use of Marx

It is crucial to outline two key aspects of Wolf's engagement with Marxian frameworks in *EPWH* (also Wolf 2001b): first, the undogmatic use of Marx's concepts; second, the centrality of the production/nature nexus, and the place of ecological factors in Wolf's analysis of the MoP as ways of "mobilizing social labor in the transformation of nature" (*EPWH*: 85). The Marxian dialectics and the concept of production enabled Wolf to develop a new theoretical vision of the interplay between social, political, and ecological factors, expanding further—as we will see—his prior critique of "ecological adaptation," central in cultural ecology as in the early ecological anthropology (Biersack 2006).[3] Nevertheless, Wolf's Marxian theoretical toolbox encountered some limitations in fully addressing the ecological implications of capitalist expansion.

Wolf's undogmatic use of Marx brings *EPWH* closer to our times. As Musto (2020: xix) remarked, "Thirty years after the fall of the Berlin wall, it has become possible to read a Marx very unlike the dogmatic, economistic and Eurocentric theorist who was paraded around for so long" (cf. Roseberry 1997: 26). Wolf began to "read Marx first hand, seriously," only in the mid-1970s while working on *EPWH*, having in his previous work "got to Marx indirectly, through other people's writing" (Ghani and Wolf 1987: 356; Wolf 2001b). However, Wolf did not consider himself "to be a theoretician" (Friedman and Wolf 1987: 114). In the new preface to the 1997 edition, he underlined how Marxian theory helped him "locate the people anthropology has studied in the fields of force to which they became subject" (*EPWH*: xii). The conceptual refining of the Marxian concepts employed in *EPWH*, such as production and social labor, as well as the pragmatic engagement with the MoP concept, enabled him to develop explanatory tools capable of accounting for—and explaining—empirical variations of systemic historical processes. Wolf asserted his undogmatic use of Marx in several passages, emphasizing how he had "striven to treat these concepts as intellectual tools, not as ultimate verities," since "their utility resides in their explanatory adequacy" (ibid.: 386); similarly, he "adopted the mode of production concept as a way of thinking about relationships, not as God's truth" (ibid.: 401). Marxian concepts ultimately serve as the theoretical and analytical foundation of his explanatory pursuit, providing "a sense of the principal strategic relations that make things move" (Friedman and Wolf 1987: 113).

The analytical recrafting of the fundamental nexus of Marx's anthropology—the dialectical relationships between human production and nature—is telling of such pragmatic approach to theory, which aims at distilling a few operative concepts for developing a complex multiscalar analysis of global interconnections. Wolf took from Marx "the basic notion that social life is shaped by the ways human beings engage nature through production" (*EPWH*: 386). The Marxian concept of "production," which refers to the "complex set of mutually dependent relations among nature, work, social labor, and social organization" (ibid.: 74), expresses humankind's socially organized "active engagement with nature and the concomitant 'reproduction' of social ties" (ibid.: 75). Social labor—as it is "mobilized and deployed by an organized social plurality"—conceptualizes the "major ways through which human beings organize their production." The MoP is the abstraction that helps conceptualize different modes of mobilizing social labor, hence "how humans transform nature to their use" (ibid.: 74). Social labor is key to the entire conceptual architecture of the MoP, enabling one "to grasp this complex connection between socially interrelated humanity and nature" (ibid.: 74). The capitalist MoP, "coming into being when monetary wealth was enabled to buy labor power" (ibid.: 77), is characterized by the stark separation of the producers from the means of production. This implies that, under the dominant capitalist MoP, the producers' engagement with nature is mediated by the value form and its internal contradictions, deriving from value's formal abstraction from use values and nature, which entails the alienation of social existence from the natural conditions of production. Wolf does not address this essential point, overlooking Marx's analysis of the commodity's value form and its crucial implications for the ways social labor is mobilized "to the transformation of nature" (ibid.). As a matter of fact, this is not so much a limitation of Wolf (who is otherwise sensitive to the ecological implications of commodity production[4]) as a more general tendency of his era to disregard the ecological dimension of Marx's theory of value.

Some crucial Marxian citations about human-nature relations and social labor are taken from Alfred Schmidt's *The concept of nature in Marx* (1971), which is also one of the few references cited by Wolf about Marx in the discussion of his sources (*EPWH*: 393–394). Schmidt's book was originally published (in German) in

1962. It was based on his doctoral dissertation in philosophy under the supervision of Max Horkheimer and Theodor W. Adorno; a reason for which, as Schmidt (1971: 9) himself later noticed, "every page is impregnated with the influence of 'critical theory' as developed by the Frankfurt School since the early 1930s." For a long time, Schmidt's work was conventionally considered the only contribution to Marxian ecology after Engels's *Dialectics of nature* (Foster 2010: 112), and "perhaps the most influential study ever written on Marx's view of nature" (Burkett 1997: 164), at least until the late 1990s, when a couple of fundamental works were published, including Burkett's *Marx and nature* (2014), to which I will return below. Wolf makes use of one of the few existing works on Marx's concept of nature to outline the fundamental abstractions mobilized in *EPWH*—from production to social labor, reiterating, in delineating the concept of MoP, the relevance of "transforming nature." It is also worth mentioning that the only occurrence of the concept "metabolism" (*Stoffwechsel*, the Marxian term for metabolic interaction), referring to the labor process as "the general condition for the metabolism between men [*sic*] and nature . . . the ever-lasting nature-imposed condition of human existence," is an indirect quotation of Marx's *Capital* from Schmidt's book (Schmidt 1971: 136; quoted in *EPWH*: 74).[5] The concept would later become central in the rediscovery of Marx's ecology, such as in Foster's (2000a) theory of the metabolic rift. No less important, however, is the fact that Schmidt's work had a lasting negative influence on the possibility to appreciate the ecological dimension of Marx's work, reproducing the dystopic view of a promethean and productivist Marxism, as harmful as capitalism in its impact on nature. According to Foster (2020: 179), Schmidt's view was affected by "the general pessimism of the Frankfurt School" and by the central idea of "the domination of nature" as an intrinsic characteristic of modernity. As a result, while the book provided new insightful interpretations (for instance, in the discussion of social metabolism), it was the critique of Marx's alleged promethean views to have "enormous influence on how Marx was viewed by many New Left theorists in the context of the developing environmental movement of the 1960s–80s" (ibid.).[6] The assumption of the anti-ecological tendencies of Marx's vision defined the wider intellectual climate in which such scholars as Wolf engaged with Marx's work from specific disciplinary perspectives. Thus, while Wolf's careful and pragmatic filtering of Marx's theorization pointed to the essential relevance of social labor in the dialectical relation between nature and society, it did not go so far as to acknowledge the *ecological* dimension of Marx's critique of capitalism,[7] or to make it analytically operational in the historical reconstruction of capitalist expansion.[8] Indeed, Wolf does not neglect the relationship between nature, labor, and accumulation, but this remains in the conceptual background of the book and is loosely developed in the historical analysis, unlike what environmental historians would later do (Hornborg et al. 2007). To summarize, Wolf's Marxian-inspired theoretical assumptions showed their limitations in the historical analysis of capitalist socio*ecological* relations. For all these reasons, it may prove fruitful to bring *EPWH* in conversation with a more ecologically minded Marxian debate. At the same time, it is worth considering whether Wolf's strategic approach to theory and his methodological vision of the intrinsic relationality of ethnographic singularities to the totality of historical processes can help engage with Marx's "ecological crisis theory" (Burkett 2014) to refine concepts that are useful for anthropological analysis. Before that, however, we need to turn to Wolf's canonically acknowledged (and yet problematic) relationships with the development of a Marxian-oriented political ecology.

Political ecology

Although the term "political ecology" "embraces a broad range of definitions" (Robbins 2012: 14), it can be succinctly defined as a crit-

ical transdisciplinary approach to socioenvironmental change, concerned with the role of socioeconomic and political factors in shaping bioenvironmental relationships (and vice versa), with a marked tendency to focus on power, inequalities, and conflict.[9] This is, however, a non-exhaustive description of a field that is not always conceived as an emerging discipline; in this respect, its notorious lack of definition makes it a rather undisciplined project. As an approach, it can be seen as the common denominator of a broad range of scholarly endeavors with different disciplinary backgrounds—anthropology being one among many. Greenberg and Park (1994: 1) rejected the idea of political ecology as "a new fad for the social sciences," claiming instead that "it is a historical outgrowth of the central questions asked by the social sciences about the relations between human society, viewed in its bio-cultural-political complexity, and a significantly humanized nature." Proliferating through different linguistic traditions (Spanish, French, Portuguese, etc.), it has become something of a global project that reproduces (and critically lives with) the unequal globalization of knowledge, with the usual dominance of the Anglosphere (Leff 2015). To a certain extent, it can also be seen as an outgrowth of the heterogeneous grassroots environmentalism emerging worldwide in the past decades (Guha and Martínez Alier 1997; Martínez Alier 2002; Watts and Peet 2004). While bearing in mind such diversity, in this article I focus on political ecology as a processual approach to the multiscalar complexities of human-environment interrelations, strongly concerned with issues of power, inequality, and value. This section unravels the resonances and convergences between Wolf's work and the development of political ecology,[10] highlighting the critical distancing from cultural ecology and the shift toward the Marxian political economy of *EPWH*.

Wolf is conventionally credited with recasting the term "political ecology" through the lens of political economy in the early 1970s (Biersack 2006: 3, 9; Martínez Alier 2002: 71; Robbins 2012: 14; Watts and Peet 2004: 6). Although he did not coin the term,[11] the ways he has used it for the first time in English (Wolf 1972) have laid the basis for a different understanding of the interconnection of ecology and political economy, calling for greater attention to the complexity of scales and connections that characterizes the ecology of specific locales. The term "political ecology" featured in the title (but not in the text) of a widely cited afterword (*Ownership and political ecology*) to a special issue on the "Dynamics of ownership in the Circum-Alpine area" (Berthoud 1972). This brief text encapsulates Wolf's methodological vision, offering glimpses of what would later evolve into political ecology's trans-disciplinary methodology. From the onset, Wolf points out that

> the property connection in complex societies is not merely an outcome of local or regional ecological processes, but a *battleground of contending forces* which utilize jural patterns to maintain or restructure the economic, social and political relations of society. . . . The local rules of ownership and inheritance are thus not simply norms for the allocation of rights and obligations among a given population, *but mechanisms which mediate between the pressures emanating from the larger society and the exigencies of the local ecosystem*. (Wolf 1972: 201–202, emphasis added)

Further ahead, Wolf notes that the "fast-running changes which have set in after World War II . . . suggest that the use of strategies of ownership and inheritance are now increasingly prompted by factors over which the community has little control" (ibid.: 203). In conclusion, following some "guesses" around the cases examined in the special issue, Wolf points out that "to prove or disprove such guesses we shall need to combine our inquiries into multiple local ecological contexts *with a greater knowledge of social and political history*, the study of inter-group relations *in wider structural fields*" (ibid.: 204–205; emphasis added). These concise remarks were

all pivotal features of what would become "the mantra of political ecology in its first generation" (Biersack 2006: 9; cf. Watts 2015).

It is essential to contextualize this text within Wolf's wider trajectory, by referring briefly to his previous engagement with human-environment relationship and his collaboration with Julian Steward (cf. Franquesa 2022, for an in-depth examination). The afterword synthesizes the fundamental criticism that prompted Wolf to distance himself from Steward in the mid-1950s and to gradually embrace perspectives of greater complexity, which demanded far-reaching analytical frameworks. At the same time, the insights the afterword outlined foreshadow much of political ecology's criticism of "adaptationist" approaches, including cultural ecology and earlier ecological anthropology (Biersack 2006). Indeed, as Watts (2015: 21) remarked, "it was precisely the limits of adaptation as a form of thought which constituted the very ground on which political ecology emerged during the 1970s and 1980s."

As known, Wolf participated in Steward's Puerto Rico project (Steward et al. 1956). In hindsight, while acknowledging the importance of the research (including the incorporation of ecological factors within the analytical framework), Wolf (2001a) stressed the limitations of Steward's multilevel approach based on ecological adaptation. Steward's approach was unable to account for the complexity that the model was aimed to explain, because it did not take into consideration the broader forces (that do not find a place in the multilevel approach) that interact with regional complexities (cf. Lins Ribeiro and Feldman-Bianco 2003: 248–252). As a result,

> that notion [of ecology] works best when focused on direct appropriation of the environment through hunting and gathering or its limited transformation through cultivation and pastoralism. Such a perspective is much less useful once *ecological activities are not determined locally but are set in motion by interests and demands that emanate from translocal markets or from the larger political sphere*. . . . I thought that once you understood it was capitalism, not local ecology, that created sugar plantations in Puerto Rico and rubber plantations in Malaya, oil fields in Veracruz and Venezuela, *you then had to come to grips with comprehending capitalism*. Steward, instead, fell back on modernization theory. (Wolf 2001a: 56–57; emphasis added)

As early as in his first book, *Sons of the shaking earth* (1959), published after the break with Steward in 1955, Wolf devoted significant attention to the ecological dimension within the complexity of the interacting factors shaping the cultural history of Middle America. However, it was in the subsequent study of European Alpine communities that a more comprehensive understanding of the interaction of historical, political, and ecological factors was achieved, providing a well-documented critique of ecological adaptation. Cole and Wolf (1999: xvi) have later acknowledged that "we thought a 'political ecology' was needed that could relate ecology not merely to the cultural utilization of a particular micro-environment in its own terms, but also to interaction with forces generated by the encompassing political economy." The coauthored book on ecology and ethnicity in the Italian Alps (Cole and Wolf 1999) was also Wolf's last study to address specifically ecological issues, which disappeared from later works. Nevertheless, it was Wolf's engagement with Marx in *EPWH* that revealed a wider vision of the entanglements of history, capitalism, culture, *and* nature. We face an apparent paradox: the full maturity of Wolf's elaboration underlying an influential work in the development of political ecology corresponded with his departing from ecological analysis toward the endeavor to outline a systematic anthropological understanding of capitalist development. Ecological concerns have gradually lost their place in Wolf's work, as he turned to more elaborated Marxian-inspired frameworks—which

are absent in the detailed historical ethnography of the Alpine communities. This explains why *EPWH* influenced the making of political ecology, as it offered a masterly way of articulating scales, local specificities, geographical variations, and global processes within a comprehensive—and yet analytically pragmatic—Marxian framework.

EPWH provided a compelling description of how historical capitalism has become the globally dominant MoP, thus showing its broad-range, worldwide, multiscalar articulations. At the same time, *EPWH* provided a powerful conceptual core that can explain such variations and interconnections, bringing into a new explanatory framework the ethnographies and specificities of regional ecologies. Whether it was the "fur trade" during European expansion in the Americas (*EPWH*: 158–193) or worldwide monocrop "regional specialization" in the production of single commodities (coffee or rubber, palm oil or sugar; ibid.: 313–353), Wolf moved beyond the somewhat deterministic implications of core-periphery frameworks to show the multiple effects and differentiations unleashed by the transformative forces of global capitalism.

The following section discusses *EPWH*'s analytical scaffolding through two interrelated conceptual tenets: connections and contradictions.

Connections and contradictions

Connections are central in both the epistemology and methodology of *EPWH*. This is expressed in Wolf's criticism of the social sciences' tendency to create distinct and separate realms of inquiry, claiming instead that "the world of humankind constitutes a manifold, a totality of interconnected processes, and inquiries that disassemble this totality into bits and then fail to reassemble it falsify reality" (ibid.: 3). This sentence powerfully resonates with political ecology as a transdisciplinary project that aims at grasping the world's complexities as "a totality of interconnected processes" through the varied refractions and fragments of this relational totality. Connections, however, are not just a self-evident fact; they also require explanation. Wolf's understanding diverges from the fascination with global interconnectivity, where everything is perceived as linked to everything else—the commonplace idea that "we all inhabit 'one world'" (ibid.). *EPWH* was an influential work in showing the articulation of "local histories" with "wider forces" (Schneider and Rapp 1995)—something we find concisely enunciated a decade earlier in the idea that one cannot understand local processes (the subject of anthropologists' ethnographic miniatures) without placing them "in wider structural fields" (Wolf 1972: 205). The methodological lesson of *EPWH* lies precisely in that showing connections between local contexts and "the wider forces" is not tantamount to explaining them, and that "no understanding of these connections is possible *unless it is grounded in the economic and political condition that generated and maintained these connections*" (*EPWH*: 387–388, emphasis added).

The MoP offered Wolf the analytical option to "characterize these interdependences and their consequences" (ibid.: xi). Emphasizing the ways in which societies mobilize social labor, the MoP drew attention "at one and the same time to the human relations to the natural environment, the social relations of humans to humans, the institutional structures of state and society that guide these relations, and the ideas through which these relationships are conveyed" (ibid.: xi). An important concept for understanding the historical variations and structural relations of the MoP is the Althusserian idea of *articulation*, which was introduced in the anthropological debates of the 1970s by French Marxist anthropologists, particularly Maurice Godelier (cf. O'Laughlin 1975). Jane Schneider (1995: 8–9), emphasizing articulation as central to Wolf's analytic strategies and to the ways he developed the concept of MoP, has remarked the differences between Wolf's use and that of French structural Marxists. For the latter, the MoP explained the articulation of noncapitalist contexts with the capitalist MoP. For Wolf,

the articulation between different MoPs was a matter of historical variation, a possibility of thinking through "elements-of-relation" instead of "elements-in-relation" (*EPWH*: 401). While French structural Marxists looked at articulation as the conceptual framework that allowed the understanding of how noncapitalist economies were "brought in" to the capitalist MoP, pretty much in terms of structural relations ("structural causality"), Wolf understood articulation also as an analytical concept that explained the geographical and historical variations of the capitalist MoP, and how this emerged from historically specific combinations with other MoPs, therefore assuming a high degree of variation *within* the main typologies of the MoP. From a methodological point of view, Wolf's relational thinking can help us develop useful analytical strategies to understand the systemic and multiscalar interrelations and variations of the contemporary ecological crisis. However, we still need to unpack the ecological implications (or lack thereof) of the concept of MoP by bringing Wolf's analytical strategies in conversation with the Marxian ecological critique of value. The starting point for this conversation is the historical novelty of the capitalist MoP and the ecological contradictions that result from the alienation of the producers from the social *and* natural conditions of production.

Wolf's grand historical fresco emphasizes the great novelty represented by the capitalist MoP "as a qualitatively new phenomenon, a new mode of mobilizing social labor in the transformation of nature" (ibid.: 85). The defining feature of the capitalist MoP is the capacity of monetary wealth to buy labor power to produce more wealth. Wolf highlights the integrative force of the capitalist mode in organizing the fields of forces in which other ways of mobilizing social labor enter the production of commodities, thus drawing the "people without history . . . into a system that harnessed the world's resources to the cause of capital accumulation" (ibid.: 353). Wolf underlines that the expansion of capital is an inherently contradictory process: "ceaseless capital accumulation, coupled with ever-rising levels of productivity through investment in technology, produces odd and contradictory results" (ibid.: 299). The "crucial contradiction of the capitalist mode of production"—Wolf writes—is the inherent fall in the profit rate. The analysis focuses on how such crises, constitutive of the structural imbalances in the capitalist mode ("which makes it always unstable"; ibid.), have unfolded historically and how the solution of such crises resulted in the very expansion of accumulation. Attention to the "odd and contradictory results," however, does not entail a clear identification of environmental crises—only obliquely mentioned—as constitutive features of capitalism's fundamental contradiction. I have already highlighted how Wolf's refining of the Marxian fundamental concepts mobilized in *EPWH* builds upon engagement with Schmidt's work on Marx's concept of nature. Nevertheless, the environmental implications of capitalist "contradictory results" are not fleshed out—not even in the otherwise environmentally relevant section on the movement of the commodities. Wolf's neglect, however, is in line with the wider vision of Marx as fundamentally unengaged with ecological questions. While considering *EPWH*'s potential to our understanding of the environmental history of capitalist expansion, I suggest we bear in mind the rediscovery of Marx's ecological thought.

Common wisdom in environmental thinking has held for a long time that Marx did not consider the environmental consequences of "ceaseless capital accumulation," either because of his productivist and promethean vision (for which even communist liberation would rest on the idea of complete domination of nature), or because capital accumulation revealed its destructive consequences mainly during the twentieth century (Benton 1996; O'Connor 1991). Following the latter line of argument, eco-Marxist thinkers such as James O'Connor (1991) proceeded to expand (or amend) Marx's crisis theory by pointing to the natural conditions of production as a limit to capitalist accumulation—the second contradiction of capitalism.

Other scholars (e.g., Burkett 2014; Foster 2000a; Saito 2017) have reached different conclusions through the reconstruction of Marx's approach to nature, society and environmental crisis. They argued—in brief—that Marx's treatment of natural conditions already possessed an inherent logic that envisioned the relevance of the environmental crisis.[12] Burkett's (2014) reconstruction of Marx's environmental crisis theory can help us expand the theoretical reach of *EPWH*, while at the same time, *EPWH*'s methodological strategy may be helpful to make the value-form approach suitable for historical and ethnographic investigation. Indeed, the challenge here is similar to the one faced by Wolf; that of recrafting concepts with high levels of abstraction and making them suitable to empirical research, enabling the articulation of local histories with wider structural forces, and making such forces *visible* "on the ground" to empirical analysis.

Together with Foster (2000a), Burkett's book is considered a fundamental contribution to the reconstruction of Marx's ecology. The aim of Burkett's meticulous examination of Marx's approach to nature, society, and environmental crisis was twofold—negative and positive. First, to provide counterarguments to the idea that Marx's approach is unsuitable for understanding the contemporary ecological crisis. Second, to show that the core of Marxian theories—specifically the labor theory of value—carries seminal elements to outline an environmental crisis theory. Leaving aside the countercritiques, I want to briefly summarize the basic argument aiming to show Marx's concern for the "anti-ecological tendencies of capital accumulation."

Burkett's starting point is the concept of human production and "the place of nature in Marx's materialist conception of history" (Burkett 2014: 25). This helps me bring Burkett's analysis closer to Wolf's elaboration of *EPWH*'s strategic concepts. For different purposes, they start from the Marxian view of human production as "part of the material metabolism between people and nature—the part involving human labor operating in and through specific conditions and under definite natural conditions" (ibid.: 53). Unlike Wolf, however (and understandably), Burkett proceeds with the analysis of Marx's treatment of "natural conditions" as constitutive requirements of production (and through the extensive discussion of Marx's notion of wealth). Both Wolf and Burkett place considerable conceptual emphasis on human metabolic relation with nature—on the labor process as "the everlasting nature-imposed condition of human existence"—and the socially organized forms of this relation. Burkett, however, engages extensively with the "value-form approach"—indeed, the core of its analysis of Marx's environmental crisis theory. Wolf, on the contrary, builds his conceptual framework on the analytical potential of the MoP while failing to acknowledge the ecological implications of the commodity's value form. The overall definition of the capitalist MoP rests on the separation of the producers from the means of production and the political economy of distribution of the product of social labor. Such an "operational" definition of the capitalist MoP circumvents the theoretical premise of the metabolic interaction between nature and society, which is already present in the general definition of the MoP as ways of "mobilizing social labor in the transformation of nature" (*EPWH*: 85). Consequently, the capitalist MoP thus conceived cannot make visible its environmental contradictions, which instead appear as *external consequences* rather than an inherent feature that unfolds through socially and geographically uneven and diverse empirical manifestations.

According to Burkett, "the social roots of capitalism's environmental crisis tendencies are only fully revealed . . . when one considers the tensions with nature built into the value form of commodities, money, and capital" (2014: 79). Under capitalism, humans' metabolic relations with nature are mediated by capital's value form and its essential contradiction between use value and exchange value. In the words of Burkett: "The contradiction between exchange value and use value intrinsic to the commodity is also a contradiction between wealth's specifically capitalist form and its natural basis and substance"

(ibid.: 82). The premises of value-formed production is that laborers are socially separated from the natural conditions of production. Value relations are, thus, not only the source of alienation of labor but also the source of the alienation of nature, given that "value is an alienated form of use value in human, social, and natural terms" (ibid.: 83). Money, as a general equivalent of value, is not only "the direct reification of universal labor-time" (in Marx's terms), but also "a form of social existence separated from the natural existence of the commodity" (ibid.: 84). The fundamental contradiction between capital accumulation and the natural conditions of capital accumulation produces radical conflicts, crisis, and rifts in the social metabolism with nature. The temporal alienation of capital accumulation—of the dominant mode of mobilizing social labor—from the natural conditions of production generates insoluble contradictions, as it "involves a conflict between the time nature requires to produce and absorb materials and energy versus the competitively enforced dynamic of maximum monetary accumulation in any given time period by all available material means" (ibid.: 112). Such contradiction—"nature's time versus capital's"—"not only lessens the quality of the natural conditions of human development but also disrupts the process of capital accumulation itself" (ibid.). Within this framework, the planetary ecological crisis is understood as the "more general culmination of the fundamental contradiction between production for profits and production for human needs" (ibid.: 107); the outcome—in Wolf's words—of "a system that harnessed the world's resources to the cause of capital accumulation" (*EPWH*: 353).

The challenge that ethnographic and historical research faces when working "on the ground" with complex abstractions requires strenuous conceptual refining—a patient effort to elaborate analytical strategies to think about the articulation between ethnographic fragments and the relational totality in which they are embedded. How can we engage with the value-form approach to frame our ethnographies of the planetary ecological crisis, that is, to make it operational for anthropological analysis? In the following and concluding section, I briefly reflect upon the possible analytical strategies of a political ecology of value, aimed at bridging the gap between value analysis and the heuristic potential of anthropological analysis.

Conclusion: A political ecology of value?

Wolf's historical anthropology of global capitalism barely extends beyond World War I, with only passing references to labor mobilities in the aftermath of World War II. Therefore, *EPWH* does not address the so-called "Great Acceleration," a term conventionally used to describe the rapid increase in human activity on Earth's systems since the mid-twentieth century, along with another widely popularized term—the Anthropocene (Steffen et al. 2015). The controversy surrounding the latter—whether it can be considered a new geological epoch or whether it is about "humanity" or capitalism—is telling of the unprecedented relevance that global environmental issues have achieved in the past two decades. This has led to the proliferation of debates and scholarly works, some of which aimed at reframing capitalist development through the lens of the current global ecological crisis (e.g., Malm 2016; Moore 2015). It is perhaps unlikely that anyone who takes up the challenge of extending Wolf's analysis to the late twentieth century could overlook the enormous environmental consequences of the unprecedented scale of commodity production on the biosphere.

While the global dimension of ecosystems degradation suggests the cumulative and combined effects of a complex interrelation of factors on the biosphere, the socioecological distribution is far from homogeneous, resulting from the highly unequal and exploitative relations on which the dominant capitalist MoP is built. Thus, while the ecological contradictions that are inherent in the capitalist value form are of a systemic type, their concrete manifestations

are unevenly distributed and experienced, with some more exposed than others to the degrading effects of world system production. Indigenous peoples in the Amazon are constantly exposed to the violent threat of expanding resource frontiers—from timber to mining to agribusiness. Unbearable working conditions are exhausting meat and poultry workers. Many coastal regions are affected by rising sea levels, while land degradation and desertification threaten the livelihoods of millions of people. People living in heavily industrialized regions are at risk of increased exposure to carcinogenic, mutagenic, and reprotoxic (CMR) substances. These are just a few scattered examples of a much wider range of ecosystems degradation associated with global commodity production, which shows some variation in the ways in which workers, ecosystems and populations are unevenly connected by the logics of accumulation in the "transformation of nature."

The observation that, under capitalism, social life is alienated from the natural conditions of production because the social metabolism is dominated by the mediation of the value form may sound rather peremptory and overly abstract—if not oversimplifying—when trying to grasp the actual experience of the social metabolism of society and nature in particular contexts, under specific conditions. Yet, the complexity of scales, relations, and meanings that we might observe in such contexts could hardly be held together if we relinquish to some explanatory strategy that allows one to understand the fragmented singularities of ethnographic miniatures within a broader holistic picture—as a way of getting "a sense of the principal strategic relations that make things move" (Friedman and Wolf 1987: 113). This means that we seek to understand and explain how value relations and processes of valorization/devalorization unfold in specific socioecological configurations of labor and resources; how such relations are concretely experienced, accommodated, or contested; and how they are reproduced within specific historical constellations of power, meaning, and practice. The aim is also to grasp and compare the significance of variation in the lived experiences and conceptualizations of (and responses to) socioecological conflicts and contradictions, the underlying valuation frameworks, and the kinds of value struggles that emerge. Wolf's openness to a nondeterministic understanding of how the capitalist MoP articulates with other MoPs, creating and dominating new social configurations, provides a good example of how the value approach can serve as "a way of thinking about relationships, not as God's truth" (*EPWH*: 401).

Anthropology cannot but come to terms with the constant tension between the abstract and the concrete in the empirical reality of the value form. Wolf has done a great deal of work in trying to show how the historical emergence and gradual domination of the capitalist MoP "harnessed" other MoPs by reshaping the meaning and form of socioenvironmental life, including the plural configurations of values and cultural meanings. Likewise, an analytical problem that concerns the anthropological analysis is the entanglement, friction, or intersection of value with values and worth (cf. Kalb 2024)—that is how value relations (and their ecological implications) do concretely unfold in a plurality of socioecological meanings and practices, which are largely "harnessed" by the logics of accumulation. At the risk of creating terminological and analytical confusion (values *are not*, strictly speaking, value), I believe that thinking the two together—and finding compelling ways to do so—is an inescapable strategy for articulating scales and understanding contradiction, difference, and variation in the experience of capitalism's social metabolism.

In conclusion, I have tried to show how Wolf's problematic relationship with political ecology—itself a matter of connections and contradictions—and the limitations of his Marxian framework, which failed to acknowledge the ecological implications of the commodity form, do not prevent us from mobilizing his method and vision to develop new analytical strategies. This is, I believe, an important and timely legacy of *EPWH*.

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Antonio Maria Pusceddu is senior researcher at the Instituto Universitário de Lisboa (ISCTE-IUL), Centro em Rede de Investigação em Antropologia (CRIA), Portugal. His main research interests include value theory, social reproduction, and political ecology. He is curre ntly developing a comparative project on industrialization and popular ecologies in southern Europe. His latest publications include: *Energopolitics of transition: The political ecology of anticipation in the Portuguese lithium rush* (Anthropological Quarterly, 2024) and the co-edited book *The global life of mines: Mining and post-mining in comparative perspective* (Berghahn Books, 2024). Email: antonio.pusceddu@iscte-iul.pt; ORCID: 0000-0001-5677-9816

Notes

1. All the following citations are from the second edition (Wolf 1997).
2. A recent appraisal of the influence of *EPWH* in the study of "developing countries" (Stacey 2023) includes chapters on ecological issues.
3. In *EPWH* there are only occasional, though telling, remarks, such as the following: "The way in which the mode [of production] commits social labor to the transformation of nature also governs the way the resources used and obtained are distributed among producers and nonproducers. Stream of resources, including income, are not—as an ecologically oriented anthropologist wrote recently (Love 1977)—the human analogue of the way biological organisms capture energy. *Between people and resources stand the strategic relationships governing the mode of allocating social labor to nature*" (*EPWH*: 77–78, emphasis added; cf. Wolf 2001b: 343).
4. In the section on chapter 11 ("The movement of commodities") of the "Bibliographic notes," Wolf points to the "ecological implications of collecting or raising a given crop or extracting a given substance" as one of the three aspects he tried to bring together in tracing "the flow of particular products from production to market" (*EPWH*: 420). This is, however, a historical analysis of the circuits of production and circulation of the commodities, which does not originate from a closer engagement with the Marxian analysis of the commodity and—despite Wolf's claim—shows very little attention to the "ecological implications." Wolf himself acknowledged this point in the 1997 preface, clarifying that the "book is not an inquiry into concepts" and that he "did not engage with the interesting, if problematic, concept of 'commodity fetishism'" (*EPWH*: xii).
5. Marx's passage is the following: "the universal condition for the metabolic interaction [*Stoffwechsel*] between man and nature, the everlasting nature-imposed condition of human existence" (Marx 1976: 290).
6. In the new introduction published in the 1993 German edition, Schmidt acknowledged that the environmental consequences of capitalist relations—particularly the valorization process—had been grasped by Marx. Unfortunately, the new introduction was not published in the 2014 English re-edition of the book by Verso (I refer to the new Italian edition: Schmidt 2018).
7. In this case Wolf could have relied on Parsons (1977), which was, unlike Schmidt's, an extensive compilation of Marx and Engels's writing on ecology. One may wonder whether Wolf might have found that book too "specific" for his own endeavor.
8. Roseberry (1997) also neglects Marx's ecological dimension, despite a short paragraph on "Nature" in the section "Historical materialism. For different uses of Marxian (ecological) frameworks in anthropology, see Hornborg 2013 and Howard 2017.
9. Martínez Alier (2002: 54) defines political ecology "the study of ecological distribution conflicts."

10. I refer mainly to the academic political ecology of the Anglosphere, though Wolf is also considered one of the inspiring sources of *ecologia politica* in Latin America, especially for his work with Ángel Palerm (Leff 2015: 38).
11. The term "political ecology" was already around when Wolf used it for the first time. Before Wolf's usage, it also appeared in French (*écologie politique*) in the writing of Bertrand de Jouvenel (1957).
12. The German "critique of value" reached similar conclusions: "Forgetfulness of natural foundations is precisely what distinguishes modern bourgeois thought from Marx's theory. This is the reason why Marxian critique of political economy, far from being incapable, as is sometimes claimed, of explaining the ecological crisis or of taking it into account, offers the only structural explanation for it that is not framed by appeals to moral values" (Jappe 2023: 84).

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