

Developing an ecology of respect: Shared land use by humans and wolves through “ecological labour” in Lusatia

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Abstract

Present land-use forms, such as former coal mines turned into lakes, solar parks, wind farms, mixed/test forests and biological (organic) agriculture, cater more for ‘human wellbeing’ or building sustainable economies than to the overall ecological well-being of landscapes that include animals and other species. A more ecologically oriented form of labour based in eco-Marxism is utilised throughout this paper, tying together various human and non-human actors. This approach is an analytical tool revealing the benefits of both wolves and humans for the landscape in order to move beyond a hegemonic economic-oriented model. Such a model, historically, viewed the overlapping territories of humans and wolves as an issue that needed to be dealt with, resulting in the near extermination of wolves in Germany. It now allows the wolves to exist in the landscape as a test model for biodiversity in the cultural landscape. This experiment has affected certain actors more negatively than others and requires an honest review and consolidation. In their attempts to provide alternatives to this land-use planning model, human actors, such as sheep farmers and hunters, view their work with the animals they exert sovereignty over in ecological terms, regarding the land as part of their territory that must be cared for and sustained. Meanwhile, wolves provide valuable ecological services to the landscape that at times are feared rather than valued. Deconstructing the perceived threat of the Wolf as both a material

and symbolic threat and learning to respect the presence and contribution of wolves to the landscape helps build inclusive land-use forms for co-habitation in working towards a ‘sustainable’ and ‘just’ landscape for all.

Keywords: Ecological labour ■ Human-wildlife conflict ■ Structural transformation ■ Lusatia

Entwicklung einer Ökologie des Respekts: Gemeinsame Landnutzung von Menschen und Wölfen durch ökologische Arbeit in der Lausitz

Zusammenfassung

Heutige Landnutzungsformen wie ehemalige Kohleminen, die in Seen, Solarparks, Windparks, Misch- und Testwälder sowie biologische (organische) Landwirtschaft umgewandelt wurden, sind eher auf das „menschliche Wohlbefinden“ oder den Aufbau einer nachhaltigen Wirtschaft ausgerichtet als auf das ökologische Gesamtwohl von Landschaften, die Tiere und andere Arten einschließen. Eine stärker ökologisch ausgerichtete Form der Arbeit, die auf dem Ökomarxismus basiert, findet sich in diesem Papier wieder. Dieser Ansatz ist ein analytisches Instrument, das den Nutzen sowohl von Wölfen als auch von Menschen für die Landschaft aufzeigt, um so ein hegemoniales, ökonomisch orientiertes Modell zu überwinden. Ein solches Modell charakterisierte in der Vergangenheit die Überschneidung ihrer Territorien als ein Problem, das gelöst werden musste, was zur Beinahe-Ausrottung der Wölfe in Deutschland führte. Heute ermöglicht es den Wölfen, in der Landschaft zu existieren und als Testmodell für die biologische Vielfalt in der Kulturlandschaft zu dienen. Dieses Experiment hat sich auf einige Akteure negativer ausgewirkt als auf andere und es erfordert eine ehrliche Überprüfung und Konsolidierung. In ihrem Bemühen um Alternativen zu diesem Raumordnungs-

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modell betrachten menschliche Akteure wie Schafzüchter und Jäger ihre Arbeit mit den Tieren, über die sie verfügen, unter ökologischen Gesichtspunkten und das Land als Teil ihres Territoriums, das es zu pflegen und zu erhalten gilt. Gleichzeitig erbringen Wölfe wertvolle ökologische Dienste für die Landschaft, die zuweilen eher gefürchtet als geschätzt werden. Die wahrgenommene Bedrohung durch den Wolf als materielle und symbolische Bedrohung zu dekonstruieren und zu lernen, seine Anwesenheit und seinen Beitrag zur Landschaft zu respektieren, trägt dazu bei, integrative Landnutzungsformen für das Zusammenleben zu schaffen, um auf eine „nachhaltige“ und „gerechte“ Landschaft für alle hinzuwirken.

Schlüsselwörter: Ökologische Arbeit ■ Mensch-Wildtier-Konflikt ■ Strukturwandel ■ Lausitz

1 Introduction

Due to the growing effect of urban sprawl and the lack of opportunities in rural areas, more people all over the globe are moving to cities, while simultaneously more key-stone wildlife species are filling the void and multiplying in rural regions such as Lusatia (Arnold/Heyer 2020). The lack of economic opportunities in such areas is linked to the decline of formerly economically stable but environmentally degrading industry, and spatial planners thus face the challenge of re-thinking depopulated rural areas, such as Lusatia, and developing experimental spaces for innovation and sustainability. The development of a plan for former energy-producing rural regions such as Lusatia, which produced 90% of coal-based energy for the GDR (Langer 2019: 77), cannot take place without considering structural inequalities that privilege certain economies and ecological relations over others (Langer 2019).

Green energy infrastructure, as a proposed solution to combat the environmental crisis caused by the reliance on fossil fuels, may nevertheless be damaging to the ecosystems and livelihoods of rural inhabitants, which involve less-than-ideal realities in terms of land use and hence biodiversity (Scherzinger/Schädler/Reitz et al. 2024). Such green energy projects may compromise the likelihood of human-animal co-habitability thriving in rural areas (Bennun/van Bochove/Ng et al. 2021). Criticism from grass-roots movements centred around divestment and anti-capitalism has been directed towards green energy markets and has helped deconstruct green energy transitions. However, such criticism may also victimise residents living near wind and solar energy infrastructure networks (Barca 2024) in order to garner media attention but then fails to offer transferable material benefits in line with the values and living situations of locals (Langer 2019). While political science

scholars have revealed a need for grassroots activism and academia to question the sustainability and effectiveness of green energy projects (Kalt 2019; Barca 2024), we must also understand how appropriate such infrastructure and adapted agricultural land use are for the multiple species that claim territory and living space among or next to the transitional network.

Lusatia is a region with an ongoing history of intensive and abundant land use for natural resource extraction, characterised by monoculture fields, forests and mines. Here, wolves were shown early on to be a *Kulturfolge* (Reinhardt/Kluth 2011; Reinhardt/Kluth 2021), benefiting from the ‘cultural’ component of the landscape¹, similar to many animals’ adaptations to city environments (Weber 2024). This, coupled with a reduced human population, limited transport infrastructure and high yields of nutritional offerings, made Lusatia an ideal re-settlement region (Reinhardt/Kluth 2011). With between 35 and 50 wolf packs spread over circa 2,500 km² in Lusatia (Reinhardt/Kluth 2011: 28), with their territories reaching 40 to 60 km in diameter, the region has been referred to as ‘wolf country’ (Lorenz 2020), indicating the omnipresence of these animals in the landscape, indeed Lusatia is the region with the greatest concentration of wolves in Europe.²

While ‘transition’ may not be new within this history or the topic itself (Olsson/Galaz/Boonstra 2014), ‘transformation’, covered equally as widely (Gerber/Knoepfel/Nahrath et al. 2009), is now being undertaken in association with ‘sustainability’ in response to climate change. Simultaneously, given the growing spatial conflict with wolves in the transitional region of Lusatia, stakeholders must weigh the positive contributions of the Wolf³ to an ecosystem within a cultural landscape built upon a land-use ideology that positions their presence and the hunting behaviour of both wild and domestic animals as mostly negative. The Wolf is

¹ ‘Landscape’ is analysed as a signifier in interviews and conversations with actors about how they narrate their engagements with the land or landscape in relation to their hobbies or livelihoods within a territory shared with wolves as other apex predators; this includes diversity in animal husbandry, meat provision and nature-interpretation.

² Personal communication, Natural Resource Officer and hunter from Brandenburg, 11 March 2023; and a hunter from Kamenz, 29 July 2022; see also <https://www.zeit.de/news/2024-07/23/aiwanger-deutschland-hat-weltweit-hoehste-wolfsdichte> (17.07.2025).

³ The Wolf here, and throughout the text where capitalised, refers both to the wolf species/population and to the wolf in its affective potential beyond its materiality, given the strong positive and negative emotions of human actors interviewed for this paper. The wolf, in lowercase, refers to a specific wolf, or wolves as many individuals in a pack together (as wolves).

a highly sensitive and contentious topic that drives divisions between urban and rural communities, politics and practices of land-use planning (Heinzer 2022; Schröder 2024). Most animals, as well as human actors, act for their own purposes in the landscape, which often goes unrecognised in land-use planning (Wild/Hunderich 2018). Thus, this paper asks: What does a refocused attention on labour in spatial planning reveal about the contributions of wolves along with human actors towards sustainable coexistence in the landscape?

This paper argues that it would be beneficial for spatial planning scholarship to look towards a renewed “ecologisation of the landscape” (Latour/Schultz 2022: 77). A sustainability perspective on the landscape, rather, often assumes that environmental resources and non-human species can fit into an economic land-use model for environmental betterment. This has the effect of positioning human actors and non-humans as being primarily of instrumental value for the landscape, while the contributions of non-human inhabitants towards constructing a sustainable future, such as in transitioning towards green energy, are often overlooked. Given the phase-out of coal towards sustainable energy production in Lusatia, there is a need to de-emphasise productivism.

According to Neumann, Behling and Weiss (2025), cultural landscapes, typical of close human-environmental interactions, are not deprived of biodiversity, indeed the “extent of biodiversity in cultural landscapes depends to a large extent on human activities” (Jedicke 2016: 510; author’s translation). Biodiversity has emerged in this region in complex interactive ways in and around developing infrastructure (Dunlap/Brock 2022; Brock 2023), and other large spatially demanding land uses (Reinhardt/Kluth/Nowak et al. 2019). Thus, Lusatia, despite being a region rich in resources (once the centre of the GDR’s brown coal economy), is also a biodiversity hotspot (Neumann/Behling/Weiss 2025).

By decentring land-use planning through qualitative research and interviews with actors on the ground, this paper focuses on labour, which is central to making a landscape ‘ecological’ rather than ‘economic’. Given that labour is central to land use within an ecological framework (Latour/Schultz 2022), this labour may be conceived of as ‘ecological labour’, the reproductive capacity to work off of or with what the land offers, transforming raw materials within an ecology. This is an ecology that both humans and animals contribute to, while still being a landscape largely dominated by humans but within which animals must find a way to exist. Animals are currently absent from spatial land-use planning, viewed as ‘non-participants’ (Wild/Hunderich 2018) both aesthetically and economically, which has re-

sulted in a failure to realise how animals access landscapes beyond the human.

In order to demonstrate what an ecological perspective on a return to labour in land-use planning can contribute to regional sustainable transitions and the spatial planning thereof, the methodological and theory sections outline what is meant by ‘ecological’ and the extent to which Marxist conceptions of labour and class fit into an ecological landscape. The main section looks at the perceived problem of the Wolf in the cultural landscape according to understandings currently based on the normative sustainable model of land use in regional transitions. An analysis of the complex spatial dynamic of coexistence follows. Lastly, I present how human actors can develop an ecological understanding of the Wolf’s place in the landscape in relation to themselves and the animals they work in close proximity to or position themselves as being responsible for.

2 Ecological labour

2.1 Methodology

The ethnographic research for this paper was conducted between January 2022 and November 2023 in the German-Polish border region of Lusatia. The intention of this research was not to go out and find the wolves, or to disturb them, but to apply a Scandinavian methodological approach to investigate multi-species worlds by traversing the land, referred to as “rubber boots methodology” (Bubandt/Oberborbeck/Cypher 2022). By visiting “wolfish” locations (Heyer/Hose 2020: 13), places where wolves operate and thrive, we entered their atmosphere, followed their traces and spent time where they left impressions. These visits involved myself, along with my gatekeeper, the conservationist⁴ and on two separate occasions students during a seminar day on 6 June 2023 and an excursion between 22 July 2024 and 26 July 2024.

Fieldwork was conducted in both Upper and Lower Lusatia through in-person visitations and go-alongs involving informal and formal semi-structured interviews or online (per telephone or video conference). For this paper I interviewed a hunter who was also a Natural Resource Officer from Brandenburg (interviewee 1), two hunters from the Kamenz region (a male and a female; interviewees 2 and

⁴ With the term ‘conservationist’, I refer here to an idealism that is held by wolf tour providers and which to some extent is shared by urbanites, who many of my informants in Lusatia refer to as ‘greens’.

3, respectively), a nature conservationist who is also a tour guide running his own non-governmental organisation (interviewee 4), two hobby sheep farmers (interviewees 5 and 6), as well as two hunters with a territory directly on the border with Poland (interviewees 7 and 8). What these actors all have in common is that they are intimately affected by the Wolf’s ecological labour. All of these actors participate in community and capacity-building to establish their place and narrative in relation to wolves and the region. These efforts may be conjoined with or conflict with the agency of wolves in contributing to a healthy landscape that is ecologically appropriate and can be co-inhabited by wolves and humans against the backdrop of the cultural landscape.

The ethnographic fieldwork was not conducted over one or a few lengthy visitations, as in a classic doctoral ethnographic research project. Rather, visitations occurred through planned weekend and single weekday visits throughout the year. ‘Patchwork ethnography’ is an emerging approach to ethnography that recognises the colonial legacy of ethnography and an accessibility that is assumed to apply to the ‘ideal’ ethnographer (Günel/Watanabe 2022). This method reflects on one’s personal situation and positionality in the research and beyond, in addition to how the researcher may affect the research process intentionally or unintentionally, and ensures the researcher is often present and felt throughout the texts.

2.2 Theory

Redefining the concept of labour in Marxist theory to include animals has evolved by adapting Hannah Arendt’s work (Welden 2023), although this paper bases ‘ecological labour’ on a re-reading of Marxist ‘ecosocialism’ (Saito 2017) which is “affective”, “performative” and “relational” (Welden 2023: 543), involving both humans and animals, related to, but not always working with or for one another (Coulter 2016). While labour is central to the works of Karl Marx in understanding property, class, etc., the notion of labour is often lost in Bruno Latour and Nikolaj Schultz’s “On the Emergence of an Ecological Class: A Memo” (Latour/Schultz 2022).

Ecological labour to date has involved human labour (DiNovelli-Lang/Hébert 2018) and been extended to animals and other life-forms (Coulter 2016; Lorimer 2020; Welden 2023), and in between these species (Krzywoszynska/Marchesi 2020). Ecological labour in these works occurs through repackaging ‘eco-friendly’ care and reproductive work with value at the production level (DiNovelli-Lang/Hébert 2018), an environmental use-value among farmers embedded in capitalism and free markets (Krzywoszynska/Marchesi 2020), or through animals providing us a service as ‘nature-based solutions’ (Lorimer 2020;

Welden 2023). While these presentations of ecological labour could be viewed as the influence of reproductive characteristics on the labour market for capital gain, the means of production are not replaced by reproduction or challenged by it, which is a requirement of developing an ‘ecological class’ (Latour/Schultz 2022).

Ecological labour involves human and non-human actors working for their own ends while being in-relation to one another via nature, as a constructed entity in opposition to, yet stemming from, culture in the modern sense of the word. Labour is conducted out of ‘self-actualisation’ in seeking fulfilment through the landscape (Coulter 2016; Wild/Hunderich 2018), similar to the way in which working animals are included in a post-work society (Blattner/Bossert 2024: 29). However, it contributes not to society but to the ecosystem, diversifying the cultural landscape. The ecological labour of wild animals and the human actors in this paper is very much connected to their territories, which both humans and wolves defend to protect themselves, or the animals they hold sovereignty over, from competing predators. Territory is an area determined through the spatial arrangement of a sense of belonging in place, where labour, rather than merely “perception or intuition” mediates the connection to “nature as a unity” of human, non-human actors and non-living features (Saito 2017: 85).

A classic Marxist analysis centred on social classes is at once anthropocentric and simplifies the reasons for a growing class division based on society and the economy, conceiving of them as separate from nature. This has limited the attention paid to how keystone animal species, such as wolves or beavers (Welden 2023), shape and are shaped by transformative spatial processes in the landscape. Animals, just like humans, seek to extend their territory when possible and to protect their boundaries. The agency of wolves is clearly seen in their recolonisation of Lusatia after their near extermination and the positive influence that they have had on biodiversity.

While Latour and Schultz (2022), along with other scholars (Saito 2017; Kalt 2019; Barca 2024) theoretically incorporate ecological Marxism into human actions across class solidarity, in their livelihoods, hobbies and resistance against industrial forms of land use, I follow Kendra Coulter in expanding labour to non-human animals who also contribute to ecosystems (Coulter 2016; Coulter 2024). Welden (2023) focuses on multi-species’ collaboration as working *with* animals, while Coulter (2016: 3) speaks of an “inter-species solidarity” in seeing the work animals do. Nevertheless, the human and non-human actors in my field do not seek to work with one another, but rather co-habituate with issues of conflicting ecological labour being mediated via infrastructure and potential population management policies (Poerting 2023). The next section analyses how wolves

are problematised when regional actors are directly affected by the Wolf in their own intimate engagements with nature.

3 Results

3.1 Overlapping territories and land use among co-predators in Lusatia

Wolves instil fear in wildlife via their ‘pushing’ effect that makes animals wary of them, which is referred to as the “ecology of fear” (Ripple/Beschta 2004). As a result, wolves complicate the Hunter’s relationship to *Wild* (hunnable large game), due to the phenomenological observation of the altered demeanour and migration patterns of such animals (interviewees 1, 2, 3, 5), as reflected in the German collective consciousness and folklore, such as *Rotkäppchen* and other tales by the Grimm brothers. Following 17th- to 19th-century extermination campaigns, wolves recovered during the tumultuous periods of war in early 20th-century Europe (Brehm/Rietschel 1961: 548), whereby many state hunting laws, with the exception of Saxony’s, left out the Wolf, who remained an ambiguous actor in the wild even after World War II.

While much literature to date has focused on wildlife, such as wolves and beavers, as integrated ecosystem engineers for the promotion of biodiversity (Lorimer 2020; Ulrich/Heimerl 2024), the return of wolves to the landscape was not planned, rather they likely re-migrated to Germany from Poland following the disbandment of the Soviet Union and the GDR (Reinhardt/Kluth 2011), and are positioned as *Dauergäste* (permanent guests) (interviewee 3 (hunter)). Wolves were not invited to participate in a revitalisation of the landscape but actively began recolonising Lusatia. Their return in the 1990s and early 2000s suggests a show of agency in that they were willing to return and try out co-existence. The return of wolves to the area was spurred on by the removal of stringent wolf extermination policies by the Federal Nature Conservation Act after the collapse of the Iron Curtain, the earlier adoption of the European-wide protective legislation of the Bern Convention in 1979 and the more open and expansive cultural landscape (Reinhardt/Kluth 2011: 11).

The Wolf’s honeymoon period as an endangered species is seemingly coming to an end, given the public debates among stakeholders (Jones 2023) and in academic spheres on “more-than-human biopolitics” (Poerting 2023) and land-use competition (Heinzer 2022: 19), with the largest issue concerning attacks on meadow livestock, such as sheep. This literature also reflects the ambivalent role of the Wolf in the cultural landscape to date and debates what action, if any, is to be taken for these territory-, border- and

fence-crossing species in the Alps (Schröder 2024), Germany (Arnold/Heyer 2020; Poerting 2023) and Switzerland (Heinzer 2022).

Additionally, the LUPUS institute for research on wolves in East Germany (Lusatia) advocates for the place of the wolf in the cultural landscape. This involves highlighting the non-monetary value of ‘ecosystem services’ provided by wolves and emphasising their value for sustainable transformation (Gerwin/Raab/Birkhofer et al. 2023). Here we see an anthropocentric approach that frames animals’ places in the landscape through the instrumental value they bring, weighed against negative components.

The uncertainty of what to do with the Wolf, as can be seen in the literature in German-speaking countries, carries over into the ambiguous positionalities adopted by interviewees like hunters and hobby sheep-farmers towards wolves in relation to land-use politics. The interviewed hunters (1, 2, 3, 7, 8) often recognised the ecological importance of the Wolf as a returning species native to the region but saw the pushing effect they have on *Wild* as mostly negative.

A male hunter from Kamenz (Saxony), when speaking of wildlife, mentioned that “they only come out around between 9:30 and 11:00 am now, which gives us the only opportunity to address them” (interviewee 2). “It is going to be very upsetting when one sees the wildlife population in ten years from now” (interviewee 2). This hunter, along with others, is pessimistic about the population of *Wild* in the future because of the growing populations and presence of wolves, which reveals a pressing concern for the animals he feels responsible for, in a competing sense of ecological stewardship.

On the ground in Lusatia, hunters and nature protection officers hold the view that there are too many wolves (personal communication with hunters). The following statements are reflective of this sentiment: “The wolf makes wildlife more cautious and moves them along” (preventing overgrazing) and “wolves make wild boars in Germany go crazy” (male hunter, Kamenz, interviewee 2). “Wolves make wild animals more sporadic, harder to address (receive an awareness that they are being watched) and therefore to shoot” (female hunter, Kamenz, interviewee 3).

In addition to dealing with the wolves’ lack of fear of humans, which has possibly culminated in increased attacks on livestock, the European Commission’s President Ursula von der Leyen has indicated a calculated change in wolf management to benefit farmers in the EU (Jones 2023), which reflects a challenge to the status quo of protecting wolf populations in Europe.

Hunters have an issue with comprehensive protection laws that only allow the removal of ‘problem wolves’ who return to the site of a previous attack (Poerting 2023), given the suffering of injured or sick wolves who may

not be killed, which hunters could otherwise undertake as ‘co-predators’ or as wildlife stewards (Shephard/von Essen/Gieser et al. 2024). Depopulation measures are already underway in parts of Austria despite this being against EU law (Jones 2023), and population reduction is possible in non-EU member states in Europe such as Switzerland (Heinzer 2022). However, hunters speak of a *berechnete Reduzierung* (calculated reduction), which is positioned as an effective way to bring the wolf population numbers down to a ‘manageable number’, given that this lobby believes the number of wolves is too high and thus causes problems for wildlife and livestock.

Despite the ongoing attempts of hunters to inherit the stewardship of *Wild* from wolves following their near extermination in the 19th century (Reinhardt/Kluth/Nowak et al. 2019: 1), the ecological labour offered by hunters and wolves comes into conflict today, and sustainable coexistence is not guaranteed. As stewards of the forest (Brehm/Rietschel 1961: 545), a role undisputed until the return of the wolf to Germany in the early 2000s, hunters take their hobby seriously (von Essen/Tickle 2020), meaning that it is a labour of love, despite there being no economic incentive (the same can be said of raising sheep and other backyard livestock). Hunters contribute to the ecology, similarly to wolves, removing sick and injured animals by killing them, which hunters who I interviewed argue helps maintain healthy wild animal populations as a part of ‘wildlife management’ (interviewees 2, 4). Two of the hunters also applied this logic of stewardship to the wolves themselves, given the fact that they have witnessed some wolves with diseases or injuries; however the hunters cannot interfere in such cases due to the protected status of the wolves (interviewees 7, 8).

Nevertheless, hunters still often feel distaste towards wolves, given that they do not belong to the category of *Wild* to be eaten and may not be shot. In *Das Tierreich* (Brehm/Rietschel 1961: 548), there is a description of wolves that reveals the fragmented ideology towards them that to some extent still exists today among hunters; the image is one of a bloodthirsty predator with no sense of moderation when compared to the wildlife steward (hunter) who takes only what is needed. This image of an excessive hunter, however, is more reflective of current hunting being undertaken for reasons of biosecurity under African Swine Fever measures (Oelke/Müller/Miggelbrink 2022).

There are many reasons why hunters fall short in replicating, replacing or even sharing the ecological labour of wolves. Hunters have made efforts in various trials to train their dogs to act and sound like wolves or even to do so themselves, but they have not achieved the goal of replicating the ecological labour of wolves thus far. Pack hunting by wolves and their sheer presence cannot be compared to

the increased distancing of hunters from prey via the modernisation of hunting, the reduction in the popularity of hunting and the absence of a need to provide society with meat via hunting. While hunters may contribute to the ecology by reducing wildlife who may be sick or ill, they do not specifically aim to do so, and a ‘survival of the fittest’ approach cannot be applied to animals who are victims of the modern form of hunting, going against the traditional *Weidgerechtigkeit* of giving the animals a fair chance.

As the next section demonstrates, even if the wolf population was brought down by a certain degree, this would only address a symptom and not the problem. The problem, which is revealed in this paper and discussed in the next section in more detail, is that of the cultural landscape, which facilitates the large populations of *Wild* and the densest Wolf population in Europe. The discussion therefore explores the way in which a closer incorporation of human actors into the ecology can help combat this structural challenge in land-use planning to facilitate a Just Transition for humans and wolves, among other species, developing an ecological class.

3.2 Wolves in anthropogenic landscapes

Wolves thrive in “anthropogenic landscapes” (Tsing/Mathews/Bubandt 2019: 186) where monoculture fields meet dense forest systems (Fechter/Storch 2014), such as is observable near the property of the sheep farmer we visited. Wolves benefit from the way in which the cultural landscape has been formed, given the abundance of wild game thriving in such systems with available fodder and dense forest coverage for withdrawal. The hunter from Kamenz explained to me that “the majority of planted farm crops are corn, rapeseed, sunflowers [the majority of which are monocultures]. Peas are now also being planted. But no more potatoes! There is no diversity in the farming landscape!” (interviewee 2). The available nutritional offerings mean that the wolves need not wander over long distances as they usually would, which requires a large expenditure of energy (Brehm/Rietschel 1961: 548). While this may be the case, the anthropogenic or cultural landscape offers “no room for wildlife to retreat to” (interviewee 2), when concerned with the predation of wolves who co-occupy the territory, given that the room for retreat are also the wolves’ hunting grounds.

While wildlife attempts to make use of the remaining forest systems, wolves thrive among various non-typical land uses for conservation, such as *Truppenübungsplätze* (army training grounds) or former coal mines turned into lakes and often used for recreation or nature preservation. These large land-use forms are likely what facilitated the wolves’ recolonisation of the region (Reinhardt/Kluth/Nowak et al.

2019: 4–5), rather than conservation areas, as they provide wildlife corridors and hunting grounds for wolves (Reinhardt/Kluth/Nowak et al. 2019; Reinhardt/Kluth 2021). The previous habitats and settlements of Sorbish, Wende and German communities in Lusatia have been at times replaced by coal mines and later ‘re-naturalised’ spaces of artificial nature or touristic attractions (such as lakes for recreational purposes) (Langer 2019).

Whereas conservation areas are often familiar to hunters who have their territories close to one another, hunting in army training grounds is undertaken by the *Bundeswehr* themselves and is thus less intense, which may reduce the chances of greater human-wolf conflict (Reinhardt/Kluth/Nowak et al. 2019: 5–6). Misleading are the narratives and metaphors of the cultural landscape as “industrialization endangering biodiversity” (Jedicke 2016: 510) and the notion that the Alps are “not a conservation area for wolves” (Heinzer 2022: 19). In the Alps, as in Lusatia and Germany, wolves have not been re-introduced intentionally for purposes of rewilding, yet nevertheless, they seem to exert agency and thrive in the cultural landscape, regardless of the ambivalence of their right to territory (Lorenz 2020: 64), as seen also contested in other regions such as Spain (Pettersson/Holmes/Quinn et al. 2023) and Finland (Lähdesmäki 2020).

This research provides added consideration of what land-use forms support wolves with adequate living, hunting and space for retreat, alongside research by Scherzinger, Schädler Reitz et al. (2024) on land-use types to combat climate change in the cultural landscape, which calls for more living space for the wolf as a “target species” (keystone) for biodiversity (Jedicke 2016: 510). The *Wohlbefinden* (sense of well-being) of wolves in the cultural landscape is thus a cause for concern among regional actors due to their close proximity to human settlements, which supports their population growth. The farmers and hunters (interviewees 1, 2, 3, 4, 5, 6, 7), despite being in favour of protecting bio- and agro-diversity in the region, are against wolves because these animals impact their livelihoods despite the potential important ecological labour they may contribute to combatting the farmers and hunters care about.

3.3 Re-entering the ecology via respect

While wolves themselves do not appear in the field research for this paper, their ‘atmosphere’ (Lorimer/Hodgetts/Barua 2017) affects their prey and co-predators and was felt among all the interviewed actors and equally in our navigation of the landscape. The affective power that the Wolf carries can be seen through documentation of how human stakeholders in the Wolf’s presence in Europe often speak about the Wolf in emotional terms (Heinzer 2022: 19), which is also the

case in my interviewees’ accounts, due to the sense of fear that they have for their livelihoods, hobbies or the lives of animals they care for and exercise sovereignty over. In the above section, the ‘ecology of fear’ (Ripple/Beschta 2004) permeates the human actors’ subjectivities and reveals that humans are not separate from the ecology where wolves operate: there is no nature outside of society. While the ecology of fear permeates the subjectivities of humans, the sheep farmer during our second visit (out of four) was very specific in stating that “wolves are not *scared* of us” with his reasoning being that “they come too close to human settlements” (interviewee 5). There were, however, mixed feelings collected during the research regarding the risk that wolves pose to citizens and pets, an issue which is often exacerbated by the media (Oelke/Jarynowski/Belik 2022).

The ecology of fear that wolves induce (Ripple/Beschta 2004) is valuable for biodiversity in allowing certain tree species to flourish, such as oak, which grows in shaded locations and within denser canopies that would normally be overgrazed by a non-fearful deer population. Hence: “*Wo der Wolf ist, wächst der Wald*” (“The woods grow where the Wolf is” interview with conservationist, interviewee 4). Wolves are “keystone species”, species which, disproportionate to their size or presence in the landscape, drastically alter and shape their environment (Lorimer 2020). Despite hunters recognising the value of wolves as important ecological actors, and wolves benefiting from the cultural landscape, this does not translate into a sustainable coexistence between humans and wolves (Pettersson/Holmes/Quinn et al. 2023) or lead to a recognized, respected co-predator relationship (Allen/von Essen 2024) or generate a “interspecies solidarity” (Coulter 2016; Amir 2022). The protection of the Wolf is perceived to limit the reign of human hunters and their ability to manage wildlife and, in turn, the lives of the wolves, for instance in putting wolves out of their misery if they are in pain or diseased. Shephard, von Essen, Gieser et al. (2024) argue that in killing, hunters are drawn closer to animals and feel a responsibility for them, a relationship that is not possible with the Wolf given the protection laws in Germany, beyond those identified as problem wolves (Poerting 2023).

Contrary to the position of hunters, my gatekeeper, a conservationist and wolf tour guide, does not take a wildlife management position, but rather believes in promoting biodiversity by taking a step back: “Nature works itself out. It is important to have a healthy (wildlife) population of wild boars and deer. If there are no predators such as wolves (like in the majority of the 20th century) then the other wild animal populations will grow and populate uncontrollably” (interviewee 4, interview during second visitation to the sheep farmer). Conservationists, as mediators between the Wolf and affected actors, argue that top predators should

be protected to ensure a functioning ecology, promote biodiversity among flora and fauna and avoid dysbiosis – the fallout of an ecology due to a lack of ‘old friend’ microbes and keystone species’ interactions (Lorimer 2020).

Conservationists offer a form of ecological labour in speaking for the wolves, advocating for their presence, often despite their absence in guided hikes they offer. As a wolf tour guide, the conservationist is also knowledgeable about other plants and animal species due to his genuine interest and recognition of wolves as a keystone species. During our many hikes and my go-alongs with him, he specifically described the Wolf’s topography – its spatial relations with other species, such as ravens, dung beetles, plants and fungi, features which a normal hiker, hunter or forester would not necessarily attribute to the presence of wolves in the forest, but from which he deduces symbiosis. As he explained, “Where the ravens are, is the Wolf, and vice-versa” given the knowledge he has on ravens locating prey for the wolves and communicating their location to the wolves, who later let them feast on remains. Urine, pawprints, symbiotic species and other evidence that the conservationist pointed out to me and the two student groups who visited the region with me (in June 2022 and July 2023) revealed the wolves’ dwellings in the forest. Hereby, the ecological labour of wolves can be made more popular through the conservationist and his tours.

During two of our hikes with student groups in summer 2023 and summer 2024, the absence of noise and animals created noticeable stillness in the forest, producing an ‘atmosphere’ through its effect on us and likely that on other wildlife (Lorimer/Hodgetts/Barua 2017), suggesting that a wolf was present. “This is a sign that the wolf is here. And they know we are here, and they are watching us. They can see us, but we cannot see them” (interviewee 4, conservationist, go-along). We continued our hike with a feeling, not of fear but of respect for the wolves, who allowed us to undertake our excursion within their territory. We sought not to make too much noise or disrupt the trophic balance they instil on the ecosystem within the anthropogenic landscape.

The conservationist (and tour guide) may be able to provide respect for the Wolf, passing that on to his guests, and also encourages respect for the practice of hunters, both of whom he shares his place of labour with, the forest. However, not all hunters view his place in the landscape as positive. Through my research, I gathered that he is often associated with the Wolf, who they harbour negative feelings towards, as well as green politics that argue for the place of the Wolf in the landscape and new green infrastructure projects simultaneously. Thereby, wolves have driven a stake into the already precarious class divisions in society, such as rural-urban, the bourgeois or knowledge class and

the hands-on working (proletariat) class, as revealed in an analysis of political discourses in both Switzerland (Heinzer 2022) and Germany (Lorenz 2020).

Rural actors affected by wolves in their everyday practice perceive and observe state governments and grassroots activists (labelled ‘Ecos’) as having an affinity to wolves (Lorenz 2020; interviewees 3, 4), revealing a rift over the place of the Wolf in the cultural landscape of Lusatia. Thus, the Wolf also appears as a political actor, given the impact it has on regional and border politics (Lorenz 2020; Poerting 2023). This rift leaves an uncertainty over where the ‘class front’ is in the potential development of an ‘ecological class’ (Latour/Schultz 2022; Barca 2024). Many ideas for the sustainable transformation (*Strukturwandel*) of Lusatia come from urban hubs of governance within the states of Brandenburg and Saxony or from the federal government⁵. Sheep farmers and hunters whom I interviewed feel as if they are not being heard or listened to by state actors and urban populations when it comes to the wolf ‘problem’.

‘Ecological labour’ offers a concept to observe the practice necessary for an ‘ecological class’ to develop that transcends these divisions (Latour/Schultz 2022). Labour is the foundation of how both humans and animals make their way in the world in order to achieve a worthwhile output, which when understood as ecological across human-animal divides, can be transformative for building sustainable land-use projects. Using ecological labour as a concept suggests that wolves, through their need to kill to survive, also maintain stewardship, intentional or not, over *Wild* populations. Grassroots environmental movements developed historically in Lusatia among residents who were relocated from their communities to make space for coal mining (Langer 2019). In fact, this is the kind of development of an ‘ecological class’ that the authors refer to (Latour/Schultz 2022), one which fights for a co-habitable existence in the face of industrial land-use expansion. Following Latour and Schultz (2022) the combined efforts to contest industrialisation may require a ‘ecologisation’ of the landscape, where labour, in the most ecological sense between human and non-human actors, provides a vessel of hope that cooperation can be achieved between seemingly ill-aligned or conflicting positions.

The value that the conservationist brings to the more-than-human political landscape indicates a possible focus for land-use policy aiming to facilitate thriving human-wolf

⁵ The commission *Wachstum, Strukturwandel und Beschäftigung*, and committees and initiatives such as the *Planungslabor – Raumbilder Lausitz 2050 – nachhaltige Transformation entwerfen* and *ZUG – Zukunft, Umwelt, Gesellschaft GmbH* are funded by the German ministries for the environment and education.

coexistence in transition regions, that of ‘human-wildlife coexistence tourism’, which is a developing niche industry. Regions such as North-Western Spain, which experience high livestock predation but also maintain long-standing coexistence with wildlife, have observed moderate success with such an approach (Pettersson/Holmes/Quinn et al. 2023). The ecological labour of the conservationist occurs in “wolfish” locations (Heyer/Hose 2020: 13), such as a dense mixed forest with pine monoculture, a test ground for unmanaged former plantation forests with various re-introduced species (such as oak and elm), and fairy tale (undisturbed) pre-industrial forests. He also leads tours in and around former coal mines that have turned into places of retreat for nature, before their transformation into recreational lakes in the future. Such human-wildlife coexistence tourism may help to challenge the normative understanding of wolves’ presence in the landscape as producing an ecology of fear that results in negative responses to the Wolf.

A second area of focus is that of a diversified agricultural economy, which provides no-net land-take solutions that are beneficial for soil ecosystems (Lacoere/Hengstermann/Jehling et al. 2023), and may offer a better long-term outlook for human-wolf coexistence than the cultural landscape’s ‘garden of Eden’, fruitful but not without conflict and system imbalance. For example, hobby sheep farmers act as buffers between the more hegemonic agriculture of the cultural landscape and biodiversity (Hall 2019), producing agro-diversity via rural backyard practices (Neumann/Behling/Weiss 2025). Given the location of many of the properties of sheep herders near water bodies, they often provide flood protection through dykes (Arnold/Heyer 2020) and promote healthy soil thanks to an exchange of nutrients between livestock and soil systems via organic fertilisation (Neumann/Behling/Weiss 2025), which returns valuable nutrients to the soil. Such land-use types involve ‘extensive’ rather than ‘intensive’ usage of land, building up biodiversity and biomass yield, which can help with climatic pressures or resiliency capacity (Scherzinger/Schädler/Reitz et al. 2024). Furthermore, sheep farmers are involved in maintaining a long-standing tradition of Lusatian sheep farming, a tradition that predates the Just Transition, similar to how wolves also existed in the landscape previously. Of course, sheep farming has continued unabated, while there was a period where wolves were absent from Germany’s cultural landscape. Both wolves and hobby sheep farmers, and the sheep themselves, can benefit, despite their conflicting relationship, from a diversification of agricultural land use at the forefront of the Just Transition policy agenda.

The intersection of both forms of ecological labour that may be of benefit for a sustainable landscape for humans, wolves and other wildlife in a transition region, can be

observed when the conservationist and I were invited to a sheep farmer’s property (interviewee 5) over two visits (October and December 2022), and later returned with two student groups (June 2023 and July 2024). Due to the sheep farmer’s desire to share with us his experiences and concerns about wolves in the landscape, he opened his property to us. Our visits often took place after or shortly before wolves or a wolf breached his biosecurity apparatus (fence and guard dogs), twice leading to attacks on his sheep, with one fatal attack. The property he owns is located next to the River Neiße at Germany’s border with Poland, situated between monoculture farm fields and dense yet patchy forests, and happens to be within the territory of the *Zschornaer* wolf pack. He acknowledges the need to share the land with the wolves and feels that “We must coexist with them somehow” (interviewee 5). This was his initial stance despite having recently experienced the death of one of his sheep from a wolf attack. During our second visit in December 2022, when one of his sheep had suffered a heart attack due to a wolf entering his backyard, the farmer stated that a neighbouring hunter had recently noticed more wolves than deer or wild boars. He thus used observed evidence to point out the negative impact of wolves on wildlife and their increased presence in shared territories with people.

His changing demeanour and emotional state over these visits reflect a reality for many of those who live in close proximity to wolves and are intimately affected by them, as depicted in the literature (Lorenz 2020; Heinzer 2022; Schröder 2024). During our first visit (October 2022), the sheep farmer explained to us that he was feeling isolated from the government’s agenda, which was experimenting with the return of the wolves in the landscape as a test project, despite having not purposely introduced them. The sheep farmer views this approach as a policy of wolf mismanagement. He also sees no financial compensation for his losses, which combined with the emotional hardship he and other sheep hobbyists like him have incurred, has led to him almost giving up. He emphasised that it is even worse for sheep farmers who run a business and produce milk or wool.

Even though the two actors may seem to be at opposite ends of the spectrum regarding their feelings towards wolves and how they are affected by them – with the conservationist benefiting through tours and the sheep farmer suffering from attacks – they bond over their position within the more-than-human political landscape. The conservationist told the sheep hobbyist about his feelings of isolation and sense of wanting to give up his practice and move away from the region back to Berlin where he lives in the off-season in order to concentrate solely on his conservation work in

Central America.⁶ He has been a target of defamation by a *Wolfbeauftragte* (peri-State wolf agent) who sees him as wanting to take on a similar role and be seen as an expert on wolves. This reveals knowledge politics concerning the wolf and access to their territory to share and benefit from the knowledge they have about wolves. His labour, which is ecological in nature⁷, is intimately connected to the territory that he shares with wolves, hunters and other ‘wolf people’. This is where his access to the wolves, to the wolves’ territory and the Wolf’s place in the landscape itself, is contested.

Returning to our hike (go-along in July 2023), shortly before dawn we left the forest to let the hunters take over. On our way back we heard a shot ring out in the distance: “that’s our signal to leave” (go-along in July 2023). The conservationist, despite not always agreeing with the killing of animals or the need for hunters to ‘manage’ *Wild*, given the Wolf’s role as such, does recognise the sovereignty of hunters in their own right as stewards of the forest (Shepherd/von Essen/Gieser et al. 2024), via his own embodied practice in nature and the intimacy of this ecological phenomenon. Additionally, when considering how to include animals into an ecology class, animals may provide ecological value through their work, similar to when the value is economic; however their existence, in being provided with basic needs such as shelter, food, water and biosecurity, does not legitimise their exploitation for by-products and meat (Blattner/Bossert 2024: 28). The conservationist’s closeness to the sheep hobbyist and the hobbyist’s connections to hunters, along with hunters and Nature Protection Officers working together, are examples of how the perceived ecological class front may begin to be re-constructed and to re-incorporate wolves and their ecological labour into land-use planning for a transition that includes multi-species despite their differences, and moves towards a ‘sustainable’ landscape.

Conservationists such as my gatekeeper insist on a transparent model of knowledge production concerning the Wolf, which is “how science should work” (interviewee 4). He showed a distaste for the competitive nature of others who,

in his mind, have a selfish desire to be “the best wolf person” (generally knowledgeable about the Wolf). In supporting his collaborator, the sheep farmer agreed, nodded his head and explained that he just wants to show others what is going on here, to be heard. If the information can be useful for further studies, he is happy to help, as he demonstrated by hosting us various times with student groups. This makes the conservationist feel valued and accredited and validates both actors in their attempts to be heard and have their hobbies taken seriously within the ecological relations they find themselves in.

In “dealing with the Wolf” through state politics⁸, it is clear, from a legal standpoint, that wolf packs which exist entirely within a federal state’s territorial boundaries are the responsibility of that state. State actors, such as the wolf officers known as *Fachstelle Wolf Referenten* (who are paid employees), are perceived by persons negatively affected by the Wolf, such as sheep farmers and hunters, as mis-managing the perceived spatial conflict between themselves, the animals they feel responsible for and wolves. Furthermore, a conflict also exists between *Wolfbeauftragten* (field agents who are recognised authorities but are not employed as such),⁹ who are responsible for monitoring certain wolf packs and responding to sightings, attacks, etc., and non-state non-governmental actors. My gatekeeper, the conservationist, pointed out that when viewed through an ecological lens, the sovereignty of wolves expands beyond borders and citizenship regimes. “The wolves do not belong to anyone; they belong to nature. And so do we. No one owns nature” stated the conservationist. He feels “absolutely no responsibility” for the Wolf (interviewee 4).

The territories of wolves, even if they are not necessarily restricted by national borders, have size limitations (Fechter/Storch 2014) and include human settlements. This leads to overlapping spatialities that must be considered when planning for a sustainable transformation in land-use types. Furthermore, as the Natural Resource Officer and hobby hunter (interviewee 1) revealed, there is “no Nature (for the wolves) to return to”. In facilitating the further enablement of the wolf’s ecological labour, the conservationist reflects a view in popular discourse that farmers should build better fences and ensure they follow biosecurity measures. The sheep farmer eventually did install an electric fence after

⁶ He ultimately moved his office back to Berlin in late 2024, but this is a lesson that regional actors and other conservationists should learn from, as the region has lost a valuable actor for the sustainable development of the region and for ensuring a co-habitable future for wolves and people (Personal communication 2024).

⁷ Despite the hobby basis or passion-driven work that these actors, along with hunters, undertake in their ecological labour, it cannot be separated from the other wage, salary or commissioned-based work undertaken to finance their hobbies that are not ‘ecological’ in nature. Specifically, the sheep farmer we visited and his father work for the nearby brown-coal mining operation.

⁸ Saxony’s Environmental Minister Wolfram Günther, 12 October 2023.

⁹ In Germany’s border region with Poland (*Lausitz*) *Wolfbeauftragte* positions of peri-state wolf officers were created under Natural Protection Officers in addition to the LUPUS institute, which was established in 2003 and undertook important work on the wolf packs in Lusatia, receiving contracted work from the German federal and state governments.

the third attack, which has provided a form of interspecies communication for the wolf to learn, through the pain induced by the electric fence (von Essen/Drenthen/Bhardwaj 2023), about the territory of the sheep farmer as a co-predator who reigns over the sheep. A level of respect is earned through this embodied learning process, and the farmer has claimed that since the installation of the electric fence there have been no more attacks and only the odd ‘yelp’ has been heard, signalling that the fence is working.

Nevertheless, sheep farmers cannot just simply adapt to being in a wolf pack’s territory like the conservationist asks, given the emotional impact of past attacks and the fear of future ones, and the financial costs: the sheep farmer mentioned that all the additions he had made to his fence and biosecurity apparatus cost upwards of 1,000 euros. More financial assistance is required for sheep farmers to equip themselves against wolves if they are to live in wolf territory, and if wolves are to be a part of the structural change the region will undergo.

While hunters and other actors who have intimate relations with animals via the act of engaging with them (*ansprechen*) and killing for subsistence may feel themselves to be ecological stewards (Allen/von Essen 2024), this section has demonstrated that conservationists and sheep farmers, despite not engaging in hunting *Wild*, may also be such stewards. Along with hunters, they may contribute to an emerging ecological class, but this is not without its challenges. Conservationists operate in a mediation role between human actors’ and animals’ contributions to the landscape in a sustainable way that can help promote an ‘ecology of respect’ for coexistence between humans and wildlife through a period of regional transformation. Nonetheless, it is necessary to also consider the economic orientation of the landscape as the dominant form to be navigated through its patchiness (Tsing/Mathews/Bubandt 2019).

By fostering understanding and collaboration between different stakeholders based on ecological labour, humans can resituate themselves respectfully in the ecology with the Wolf and planners can consider developing sustainable land-use plans that benefit both people and wildlife. It is crucial that wolves are recognised beyond their aesthetic value as wildlife or tourist attractions (Wild/Hunderich 2018), so as to be seen as a keystone species ensuring a balanced ecosystem. Land-use planners must avoid labelling wolves’ ecological labour as a ‘nature-based solution’ for human-centric evaluation only (Welden 2023). This would frame their contributions only instrumentally, making them commensurable so they blend in with the alienation of other resources from the land in an economic-oriented land-use planning approach (Lorimer 2020). Therefore, concern and care needs to be fostered across inter-species divides rather

than viewing the threat of climate change to humans as requiring an intervention of biodiversity capacity building or ignoring the environmental damage that disturbs animals and also negatively impacts humans (Coulter 2024: 34).

4 Conclusion

The paper has discussed the intricacies of human-wolf competition as well as competition between persons seeking to speak for or work *with* the Wolf in Lusatia, Germany. Furthermore, ecological labour is presented as a concept that ties together the contributions of these human and non-human actors to present an innovative approach to understanding how land and territory are ecologically important in the spatial planning literature of wolves and their cohabitation with humans in the cultural landscapes of Germany, German-speaking countries (Austria, Switzerland) and globally. Ecological labour as presented in this paper, like ‘ecological class’, is not a finished product, but a philosophical project with its basis in the empirical examples presented here. The work of hunters, sheep farmers, conservationists and wolves, among others, has been considered in relation to one another, de-emphasising production and placing more of an emphasis on ecological labour. Viewed through an ecological lens, attempts at sustainably co-inhabiting the landscape require *respect* for one another’s contributions, involving intimate engagement between the various actors and with the anthropogenic landscape. This is necessary despite the perceived negative effects that arise from competing interests in the overlapping territories of wolves, hunters and sheep farmers, who attempt to reign over domestic or wild animals, and despite conflicts between those attempting to have knowledge about the Wolf and therefore access to their territories. Wolves, having learned to fit into the cultural landscape, will likely further learn to *respect* the ecological labour of humans via sheep and other livestock who are protected by the other ‘top predators’ via electric and/or tall, sturdy fences that cannot be breached. It seems probable that the wolves will avoid these territories, like they would other wolf packs. Since research to date (Reinhardt/Kluth 2011; Reinhardt/Kluth/Nowak et al. 2019) and evidence throughout this study has revealed that wolves thrive in the large plots of land associated with the structural transition to green energy, further research should be continued to understand the role of such infrastructure projects and recreational spaces of post-mining landscapes on human-wolf coexistence. While it is possible that ecologically oriented land-use planning further increases conflict between wolves and humans, this paper shows that a net positive effect is more likely, given the value conservationists bring to understanding the place of wolves in the landscape

and the developing alliances across seemingly conflicting actors.

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