

# MORE-THAN-HUMAN CULTURAL GEOGRAPHIES TOWARDS CO-DWELLING ON EARTH

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## Abstract

Established as a counterpoint to culture-nature dualisms, the concept of more-than-human refers to the worlds of the different beings co-dwelling on Earth, including and surpassing human societies. Based on this notion and coming from different philosophical perspectives, including post-phenomenology, non-representational theory, eco-feminism, and post-humanism, cultural geographers have sought to broaden their interpretations to decipher the spatial multiplicities of living in the Anthropocene. This essay characterizes the more-than-human Cultural Geographies of Anglophone countries, which use artistic, literary, narrative, and experimental inter and transdisciplinary practices. These approaches facilitate artistic, narrative, and creative geographical practices that create opportunities for immersion in and expression of shared worlds. Cultural geographers employ vital, atmospheric, affective, and corporeal studies to reveal complex multi-species arrangements of co-vulnerability and reciprocity experienced in modern-day places of tension. Understanding these earth-dwelling tessituras enables us to decipher terrestrial writings that contrapose hegemonic human exceptionalism.

**Keywords:** More-than-human Worlds; Anthropocene; Dwelling.

## Resumo / Résumé

### GEOGRAFIAS CULTURAIS MAIS-QUE-HUMANAS RUMO AO COABITAR NA TERRA

Fundado como contraponto ao dualismo cultura-natureza, o conceito de mais-que-humano refere-se aos mundos dos diferentes seres que coabitam a terra, de forma a incluir e exceder às sociedades humanas. Embasados em tal noção e em diferentes perspectivas filosóficas, como pós-fenomenologias, teorias não-representacionais, eco-feminismos e pós-humanismos, os geógrafos culturais têm se interessado em ampliar suas interpretações para decifrar as multiplicidades espaciais do habitar no Antropoceno. Neste ensaio objetiva-se caracterizar as Geografias Culturais mais-que-humanas efetivadas nos países anglófonos. Essas Geografias recorrem a procedimentos inter/transdisciplinares com práticas artísticas, literárias, narrativas e experimentais. Tais abordagens possibilitam que práticas geográficas artísticas, narrativas e criativas oportunizem a imersão e expressão de mundos partilhados. Os estudos vitais, atmosféricos, afetivos e corporificados realizados por esses geógrafos revelam complexos arranjos de co-vulnerabilidade e reciprocidade multi-espécie vividos nos lugares em tensão na contemporaneidade. A compreensão dessas tessituras do coabitar terrestre pode permitir-nos decifrar grafias da terra que contraponham ao excepcionalismo humano hegemônico.

**Palavras-chave:** Mundos mais-que-humanos; Antropoceno; Habitar.

### GEOGRAPHIES CULTURELLES PLUS-QUE-HUMAINES VERS COHABITER LA TERRE

Fondée comme un contrepoint au dualisme nature-culture, le concept de plus-que-humain indique les mondes des différents êtres qui cohabitent la terre, de façon à inclure et aller au-delà des sociétés humaines. Basée en cette notion aux différentes perspectives philosophiques, comme les post-phenomenologies, théories non-représentationnelles, éco-féminismes et post-humanismes, les géographes culturelles ont eu l'intérêt à élargir leurs interprétations pour déchiffrer les multiplicités spatiales du habiter au Anthropocène. Cet essai objective caractériser les Géographies Culturelles du plus-que-humaine réalisées aux payses anglophones. Cette Géographies emploient procédures inter/transdisciplinaires avec des pratiques artistiques, littéraires, narratives et expérimentales. Telles approches permettent des pratiques géographiques artistiques, narratives et créatives de créer opportunités d'immersion et d'expression de mondes partagés. Les études vitales, atmosphériques, affectifs et corporifiés élaborées par ces géographes révèlent complexes assemblages de co-vulnérabilité et réciprocité multi-espèce vivent aux lieux en tension à la contemporanéité. La compréhension de ces tessitures du cohabiter terrestre peut permettre que nous déchiffrions les graphies de la terre que contrapose l'exceptionnalisme humaine hégémonique.

**Mots-clés:** Mondes plus-que-humaines; Anthropocene; Habiter.

## INTRODUCTION

The resumption of debates about climate change and ecological transitions has aroused Anglophone Cultural Geographers' interest in socio-environmental problems at the dawn of the twenty-first century. Their studies aim to transcend the "new cultural geography" of the 1980s by addressing themes on the existential multiplicity of terrestrial life (GREENHOUGH, 2014). Whatmore (2006) argues that this recent turn towards the phenomena and spatial arrangements of more-than-human entities has caused a significant thematic and conceptual restructuring in the discipline.

The eco-phenomenologist Abram (1996) was responsible for popularizing the concept of a more-than-human world and expressing everything that encompasses terrestrial "nature" in its broadest interpretations. According to the author (ABRAM, 1996), the expression refers to a world that includes and exceeds human societies, thereby associating them with the complex webs of interdependencies between the countless beings that share the terrestrial dwelling. This approach aims to overcome the prevalent modern dichotomy between nature and culture.

Although it started in eco-phenomenology, the concept of more-than-human has been adopted by several theoretical perspectives, particularly post-phenomenologies (ASH; SIMPSON, 2018), non-representational theories (THRIFT, 2008), eco-feminisms (BELLACASA, 2017; TSING, 2015), and post-humanisms (HARAWAY, 2008; 2016). These currents of thought have been fundamental in inspiring geographers who intend to immerse themselves in the existential conditions and emergence of the space-time situations of more-than-human entities. We concur with Almeida (2013) that this variety of theoretical trends is a positive development, opening Cultural Geography to different ways of deciphering sensitive cosmoses.

The present essay intends to contribute to the conceptions, concerns, procedures, and aspects of more-than-human Cultural Geographies, focusing on the scope of the Anglophone bibliography. Thus, it is a state of the art and systematic analysis of research and production in the area, emphasizing the last two decades. The first part of the text discusses the more-than-human worlds and their insertion in Cultural Geographies. Subsequently, the main research topics in the field are identified.

## FRACTURED HORIZONS AND THE CHALLENGES OF THE PRESENT

The recent recognition of the Anthropocene as the geological era marked by the impacts of industrial action demonstrates the depth of the contemporary environmental crisis (POVINELLI, 2016). Disseminated by the chemist Crutzen (2002), it is deemed the epoch when certain human groups' transformative capitalist activity can be considered a relevant geological force. For Danowski and Castro (2017, p.48), "the Anthropocene, in presenting us with an 'end of the world' perspective in the most empirical sense possible, that of a catastrophic change in the material conditions of the species' existence, causes an authentic metaphysical distress." This era expands a field of ontological and epistemic insecurity that requires us to create other ways of thinking about the relationships between world and subject.

In our view, the possible futures present themselves as fractured horizons of climate change and devastation. Davis and Turpin (2015) point out that the Anthropocene can be understood as the sensory phenomenon of the experience of living in an increasingly toxic world. To decipher these present challenges, the human sciences must move away from the traditional Western Cartesian humanism that founded them in modernity towards the possibilities of a less dualistic action. Therefore, establishing a broad environmental awareness that allows the notion of a cultural-natural continuum (HARAWAY, 2016) requires an alternative understanding of the countless cosmoses surrounding us.

As previously indicated, the concept of more-than-human seeks to overcome this dualism by creating a broad notion of co-dwelling. Popularized by Abram's (1996) pioneering perspective, the more-than-human world is defined as the open spectrum of the interrelationships between the worlds of living and non-living beings and human societies. Thus, this view includes the different cycles of animals, plants, water, air masses, and rocks. In embracing such dimensions, Abram calls into question the human exceptionalism underlying the Anthropocene environmental crisis and expresses the

multi-species arrangements of the planetary future.

According to Abram (2010), it is a matter of becoming an animal, rediscovering humans as entities involved in the primordial terrestrial soil. As he explains, "The ground and the horizon— are granted to us only by the earth" (ABRAM, 1996, p.131, emphasis added). The fundamental assumption of a shared involvement with the Earth reveals how the subtle intertwinings between the planet's beings are manifest. With their specificity and corporeal variation, the different terrestrial beings are recognized in their particular expression of sentience.

To recognize the more-than-human world is to understand that there are other "selves" with corporally distinct centers of experience that take place in a vast intersubjective and inter-corporeal horizon. The multi-species cosmos of reciprocities and (dis) encounters between different entities is an acknowledgment of what Bellacasa (2017, p.145) describes as being "in a web of living co-vulnerabilities." The interconnections inherent to the vulnerability of being on and from Earth draw together the varied more-than-human forms of existence.

The scientific philosopher Haraway (2016, p.55) states that "Human beings are with and of the earth, and the biotic and abiotic powers of this earth are the main story." Her post-humanist approach recognizes that modernity has established a human exceptionalism that legitimizes contemporary capitalist exploitation. Therefore it is essential to deconstruct the mechanistic perspective in which animals, plants, and other non-human entities act only on instinct (HARAWAY, 2008). These other beings with whom we share our places must be understood as subjects with their own horizons of intentionality.

Abram (2010) brings together each mineral, vegetable, or animal entity on Earth as a telluric variation of the texture and pulse of the same sensitive world and cosmos. When approaching a center of reference that animates the warp and woof of existence, there are ways to subvert human isolationism regarding other beings that are part of the biosphere's dynamics. Like the animism of traditional populations (DANOWSKI; CASTRO, 2017), it is feasible to contemplate an expansion in thought involving terrestrial sentience shared between the different beings on the planet.

Haraway (2008, p.106) explains that confronting human exceptionalism "requires working for the mortal entanglements of human beings and other organisms in ways that one judges, without guarantees, to be good, that is, to deserve a future." Thinking-with processes involving non-human beings necessitate an understanding of arrangements and intertwinings. In the face of climate change and invasive practices, the more-than-human relations of places are altered, causing existential mismatches. When considering the need for a thinking-with that ensures environmental justice, it is vital to decipher the different interrelationships and how they can be repaired or reinvented in contemporary fractured horizons.

The eco-feminist Tsing (2015) problematizes that different forms of being's meetings and arrangements should be studied as complex and polyphonic sets to decipher more-than-human ways of cohabiting places. Her study of the precarious arrangements and reinventions of the international matsutake mushroom harvest and trade circuit demonstrates the possibility of life on this disturbed Earth. In the expansion of capitalism's ruins, forms of coexistence amid precariousness indicate survival strategies in the Anthropocene. Thus, immersion in these more-than-human contexts offers insights into thinking-with other beings and challenges the causal nexuses of such imbalanced situations and their existential, cultural, economic, and affective consequences.

## **BECOMING CULTURAL GEOGRAPHY**

The movements of the "new" Cultural Geography of the 1980s paid little attention to environmental issues; however, they focused on representational problems. Terrestrial life, a recurrent topic in this subdiscipline's ancestral past, was subsumed by other research themes (WHATMORE, 2006). However, the Anthropocene's latent problems, particularly in the last twenty years, have recently provoked and instigated attention to this topic. Authors like Dardel (2011 [1952]) have been revisited as pioneers of approaches in this sphere.

As in other disciplines in the humanities, anglophone Cultural Geographies have been influenced by these debates. Lorimer (2010) argues that there is a growing set of cultural geographers interested in

approaches to animal studies, bio-philosophy, and other more-than-human perspectives. They seek to rethink landscapes and places through interactive notions between these spatialities' socio-cultural and non-human elements. Non-human entities and forces addressed in these studies include, but are not limited to: antidepressants (MCCORMACK, 2007), cigarettes (MARKOVIĆ, 2019), elephants (LORIMER, 2010; BARUA, 2013), reindeer herds (LORIMER, 2006), lakes (GIBBS, 2009), bicycles (SIMPSON, 2018), coral bleaching (GIBBS et al., 2019), trees (PHILLIPS; ATCHINSON, 2018), wild atmospheres (VANNINI; VANNINI, 2020b), and gardens (PITT, 2015).

As indicated, the current thematic change in direction is an academic renewal and results in suggested studies that could previously seem to contradict this disciplinary subfield's proposals. Greenhough (2014, p.115) states that the goal of more-than-human Cultural Geographies is to "offer particular perspective (s) on human – non-human encounters and the worlds they co-produce, while always recognizing their contingent and fragile nature." When dimensioning ways of thinking-with and deciphering corporeal polyphonic spellings of inhabiting the Earth, these studies provide opportunities for confluences that challenge Cartesian dualisms. They articulate to enhance and expand the explanatory capacities of geographical categories, particularly place and landscape, for non-human entities.

More-than-human approaches in Cultural Geography are characterized by a particular interest in the different forms and approaches of multi-species and corporeal arrangements. They adopt methodologies and perspectives that try to overcome the trends of human exceptionalism, usually through associations with post-humanist perspectives (PANELLI, 2010). It is also worth mentioning these geographers' resistance to the reductionism of representations, a feature that is particularly evident in their studies' focus on practical and affective non-representational transformations. Such attitudes reflect relational, inter and transdisciplinary, and immersive approaches in which the non-human entities unveiled are understood between their capacities and action centers (GREENHOUGH, 2014). Supported by geographical categories of analysis, they mean comprehending that place, landscape, and daily life must be understood in the inseparability of the multi-species worlds that compose them.

The more-than-human Cultural Geographies aim to escape the representational limitations once in force in the new Cultural Geography (LORIMER, 2006) to evoke different ways of being and living by non-human entities. In pursuing alternatives in post-phenomenological (ASH; SIMPSON, 2018) and/or non-representational perspectives (THRIFT, 2008), a new generation of cultural geographers intends to recommence bringing together the bio and geo components intrinsic to more-than-human worlds.

Non-representational approaches concern performative methodologies in which the participants have equal rights to present themselves through relationships that are a reversal from representations and texts (THRIFT, 2008). This active focus collaborates with the creation of dialogical practices and actions that are connected to the corporeal specificities of all involved. By transcending the former reading of space as text, it is recognized as a multivoiced performance coming to pass.

Whatmore (2006) argues that Cultural Geography's inventiveness lies in its potential to gather diverse returns between the constant concerns about vital and existential processes of being-in-the-world. She (WHATMORE, 2006) points out that the recent trends in more-than-human Cultural Geographies collaborate to construct geographical practices that aim to bring transcendence to representationalism. They are propitious as they offer insights into how to be affected and affect different human and non-human arrangements within the specificity of their particular place. It is also noteworthy that the attention these perspectives give to the multiple ways of cohabiting and affectively co-fabricating worlds enlarges the procedural possibilities for approximations with other disciplines in the Humanities.

## AFFECTIVE EXPRESSIONS OF MULTI-SPECIES SPATIALITIES

To the extent that, as Tsing (2015, p.281) explains, "without meaning to, most of us learn to ignore the multi-species worlds around us," it is essential to create other modes of sensitivity, listening, and observation. Although relevant, orthodox procedures or human-centered methodologies can limit the researcher's viewpoint and immersion in more-than-human worlds. If modern sciences' dualisms are

to be transcended, it is imperative to join forces to transform how geography is practiced to incorporate multi-species polyphonic arrangements. Changes in this geographic approach entail openness to less pragmatic practices and approaches to other forms of sensitivity and observation.

Therefore, there has been a shift in the interpretation of meanings towards the logic of affect. Whatmore (2006) ponders that this change occurs in the spectrum between the inter-corporate ways relationships are established and the sensory dimensions affecting the world. Affections are forces of varying intensity that inter-corporeally and intersubjectively affect the subjects viscerally involved in the research processes.

In the horizon of non-representational theory, Thrift (2008, p.192) states that "affect is a different kind of intelligence about the world." Affect involves direct or indirect ways of thinking and is the thought and practice of affecting and being affected. By transcending interpretations that reduce it to the irrational or sublime, within this theoretical field, affect is comprehended as a reciprocal form of corporeal interaction involving emotions, perceptions, and the imaginary.

Bellacasa (2017, p.221) points out that "Situations of care imply nonsymmetrical, multilateral, asubjective, obligations that are distributed across more than human materialities and existences." Likewise, affective circumstances between corporally different entities occur in the architecture of an experiential fabric specific to each case. Lorimer (2006) demonstrates that place-making in reindeer herding involves interspecies care activities with sensory and affective geographies of reciprocity.

Contact with native telluric forms reactivates and energizes people's senses (ABRAM, 1996). Thus, the affective approaches used in more-than-human Cultural Geographies provide reciprocal immersions in the cosmos of plants, animals, and atmospheres. The geographer guided by the primal forms of inter-corporeality experienced in these arrangements can identify ways to affect and be affected by geographical situations in their specificities.

Lorimer (2012) argues that more-than-human approaches in Geography can assist environmental planning efforts in degraded areas by drawing attention to the interconnected significance of corporeal, affective, and non-human elements. Considering the agency of the interactive elements that affect and are affected in each geographic reality permits the conditions emerging from the inter-corporeal arrangements of precariousness, cohabitation, and/or tension involved in place-making practices to be observed.

According to Thrift (2008), there has been an upsurge in affective techniques and procedures in Cultural Geography, aiming to carry out research to correlate the psychic and emotional in transcendence to the representative limitations interpreted by rationalist paradigms. Found in trans and interdisciplinary contexts, these practices use immersive research modes that enable approximations with affective atmospheres and forms of otherness. Thus, the research practice itself should become a creative context and generator of affective nexuses by combining relational activities with those linked to artistic, poetic, and/or immersive action.

## ***MORE-THAN-HUMAN PROCEDURES AND APPROACHES***

Transposing the languages and skills from the Arts to Cultural Geography's research practices is a way to get closer to non-human worlds. The Arts enable the creation of a cosmos of reciprocity that raises awareness of the Anthropocene's environmental conditions. If, as Haraway (2016) argues, this is a time marked by discontinuities, the challenge for the Arts and Humanities is to create ways of acting and thinking that shorten this period as much as possible and build forms of cohabitation that design refuges and alternatives. Davis and Turpin (2015) demonstrate the transformative virtuality of artistic practices.

More-than-human Cultural Geographies adopt a non-representational perspective in their approach to the Arts. Such an approach is a departure from observations about aesthetic issues or meanings pre-defined by symbolic systems (GREENHOUGH, 2014). Conversely, they approach art-scientific contact as a form of inventive engagement with the world, where the senses are produced and recreated during the corporal interaction with the entities involved. This reciprocity is understood as an ecology of dynamic and intersubjective practices (GREENHOUGH, 2014; SMITH, 2007).

In agreement, Hawkins and Straughan (2015) state that cultural geographers have appreciated art's capacity to engage researchers in experiences of more-than-human worlds. Through this approach,

artistic, narrative, and creative geographical practices seek to create opportunities for immersion and expression of shared worlds. Art is a way of unveiling and creating new spatialities where creative encounters happen on the horizon of affective cosmoses, felt and experienced in the geographical reality (HAWKINS, 2014). For Haraway (2016), Earth's various beings relate, approach, and know each other, thinking stories through narratives, worlds, and knowledge that break with Cartesian categories or specifications.

Offering opportunities for the emergence and reciprocity with these narratives, crossings, and weavings is one of the goals set by more-than-human Cultural Geographies. It is possible to find Earth's polyphonic existential spatialities through imaginative, poetic, sensory, and empathic contact. Capturing the shared affect between telluric corporal variations demands alternative forms of attention and expression on the part of geographers. In seeking to highlight the relational weaving of places through etho-ethnographic fables, studies such as those by Vannini and Vannini (2020a) show how such forms of sensitivity can be written in a geo-literary association.

As Smith (2007) points out, expressing other beings' existence geographically means becoming open to their affect and knowledge to find forms of speech through the Earth's voiceless spellings. This implies being influenced by encounters so that they propitiate changes in the forms of otherness and collaborate in the construction of shared world projects. It is about understanding how to be in-and-of the world in correlation to more-than-human contexts.

Associations in multi/transdisciplinary groups in collaborative projects can dimension specificities and dynamics of the geographical reality. At the same time, artistic and creative approaches are a way of publicizing and raising awareness of research results (HAWKINS, 2018). Seeking affect through the construction of songs (GIBBS et al., 2019) or video-photographic correlations (LORIMER, 2010) are ways to reach vital spaces experienced and shared in more-than-human worlds.

## VITAL GEOGRAPHIES OF ANIMALS AND VEGETABLES

Within more-than-human Cultural Geography, Vital Geography focuses on the place-making of animals and plants. This subfield is primarily concerned with how multi-species arrangements are formed in worlds of corporeal contact between different beings. They recognize the intersubjectivities, affect, and forms of sentience of the study subjects, to glimpse their autonomy in the composition of their spatialities of existence.

Hodgets and Lorimer (2015) argue that it is essential to consider the agencies, behaviors, and ways of animals' place-making so that geographers can engage with hybridity and situations involving more-than-human entities. When addressing the contextual possibilities of geographical reality emerging from non-human spatial practices through a vitalist perspective, which considers the plant or animal's sentience, it is possible to observe the sensitive and affective fabrics that shape specific spatialities to their corporeal variations.

According to Vannini and Vannini (2020a) multi-species ethnogeographies deal with a diffuse and shared more-than-human corporeality, about a spatial ethos of reciprocity between human, animal, and plant worlds. The quest for vital geographies emphasizes the visceral experience of the existential and embodied spaces of different entities. Although each has its variable dimension, identifying shared strands between more-than-human beings unveils multiple spatial dimensions. Therefore, the basic assumption considers the autonomous, vital, and sociable agency of the non-human entities involved.

An exciting study by Barua (2013) unveils the conditions in which sunai alcoholic beverages transform affective relationships and spatial tensions between humans and elephants in the Indian village of Sundapur. The ethnogeographic research on more-than-human cohabitation showed the micropolitical, cultural, and biological conditions of the place. How the non-human animals look for the drink and react aggressively under its influence reveal the biopolitics of place centered on relational contradictions stimulated by human artifacts.

Another example is the work of Philips and Atchinson (2018), who address how trees interact and shape more-than-human worlds in urban spaces in Australia. Based on biographical reports and poetic expressions about these plants' sensitivity, the authors uncover the networks of imaginative co-fabrication between human and non-human subjects and worlds. The analyzed narratives reveal

reciprocities between plants and people, leading to collaboration to turn cities into places of multi-species coexistence. There is a sensitivity in observing the subtle relational correlations inherent in cohabitation and shared sentience between the entities involved in the research.

As Pitt (2015) suggests in her research into human-plant reciprocity in the place-making of gardens, there is an ethical imperative to recognize plants' agency. Thinking about plants based on their autonomy transcends the Cartesian and dualistic vice of viewing them as passive and lacking sensitivity. This mechanistic thought structure is part of a link that legitimizes present-day ecological damage. By adopting a vitalist stance, geographers can collaborate to build anti-hegemonic perceptions of relationships with plants and animals.

Vital Geographies are multiple (HODGETS; LORIMER, 2015) and collaborate in unveiling arrangements of tension, precariousness, discontinuity, reciprocity, or sharing in the Anthropocene. The endeavor to observe and share with beings whose corporeality differs from that of humans requires a careful examination of particular variations on multiple scales, according to the specificities of the different more-than-human worlds. They encompass ways of being-in-the-world that differ corporeally from one another, addressing topologies and geographical realities that are not necessarily familiar to human geography. In this way, they collaborate in the architecture of modes of otherness that do not have speciesism in their approach.

## ATMOSPHERIC GEOGRAPHIES

Atmospheric Geography is another field with distinct repercussions among more-than-human Geographies, which focuses on the multiple conditions by which human and non-human entities interrelate in certain places. Adams-Hutcheson (2017) argues that the concept of atmosphere used in these studies is related to the word's two meanings. Both the atmosphere as an affective-aural field emanating from beings and things and manifestations of the troposphere.

Trigg (2020, p.4) explains that "The indeterminate nature of an atmosphere, as something that is both subjectlike and objectlike, means that it can function as a common ground between individuals." This inherent shared characteristic embodies the more-than-human modes of reciprocity that emerge in how different entities participate and create atmospheres. Atmospheres can be wild (VANNINI; VANNINI, 2020b) and explain convergences of a primal feeling of vitalist forces inherent in the Earth. Therefore, the atmospheric porosity and dynamic flow generated by feelings, bodies, and objects indicate a non-representative way of manifesting the variable relationships between presences sharing a given place.

Insofar as "there are as many atmospheres as there are ways of feeling or moods" (ADAMS-HUTCHESON, 2017, p.6), they can be pleasant or challenging, sublime or exciting, comfortable or oppressive. In his research in New Zealand, Adams-Hutcheson indicates how the troposphere's seasonal rhythms influence small farmers' sense and bonds of place, involving the intertwining of animals, plants, agricultural machinery, rainfall, and mudflats. He states that immersion in atmospheres can demonstrate discreet and dynamic connections that involve the corporeality of the most diverse beings.

According to Trigg (2020), an atmosphere can be defined by the adhesions it exerts on the bodies with which it interacts. Simpson (2018) takes this approach when studying the ambiguities of cyclists' relationships with inopportune winds on the British coast. Alongside the production of atmospheres related to bicycling activities, a counter-atmosphere is produced by the troposphere that hinders the rider's path. The interaction of these elements generates a particular affective atmosphere that reinforces a more-than-human reciprocity negotiated in places.

As Ash and Simpson (2018) underscore, atmospheric studies can focus on the webs of meanings, styles, and affectivity generated by particular objects. Such research tends to involve amalgams of more-than-human components that unfold into situational and circumstantial spatialities. McCormack (2007), for example, addresses how antidepressants and their chemical processes cause changes in the more-than-human affective dynamics of places. The author's ontological reflection demonstrates how geography can engage in biotechnological themes through molecular affect. Based on this complex composition of atmospherically shared affections, he synthesizes that the space-molecular experience is

altered when antidepressants modify chemical processes. The corporeal places produced in these situations become hybrid compositions between the biochemical elements and the entities involved.

## CONCLUSION

In the fractured horizons of desolate geographies that seem to be continually expanding in the Anthropocene, the possibility of confrontation permeates the formation of other ways of thinking. Recognizing the intersubjectivities, intertwinings, and dependencies between different terrestrial beings, as the more-than-human Cultural Geographies have done, is a way of transcending the Cartesian dualisms that legitimize the current environmental crisis.

Transcending the limitations of representational geographies towards the transformative possibilities of recognizing the links between human and non-human beings linked to the Earth entails building an empathic relationship with the conditions of shared existence on the planet. Exploring different entities' existential spatialities results in identifying experiences of places' co-vulnerability, reciprocity, precariousness, and affectivity.

The current variety of procedural and theoretical experiments reveal Cultural Geography's creative potential to propose ways of seeing, feeling, and affecting multi-species geographical realities. Its observations about the agency of objects, atmospheres, plants, and non-human animals indicate perspectives of corporeal variations that enhance ways of cohabiting the Earth. Its links to the categories of place and landscape enhance the scope of folds and interrelationships explored by geographic knowledge.

To immerse oneself in the co-vulnerabilities of the places experienced by different terrestrial entities results from understanding the reciprocities and contradictions of the contemporary geographic situations in tension. Geographical knowledge open to understanding these sentient arrangements allows us to decipher spellings of the Earth that overcome human exceptionalism towards the possibilities of life in more-than-human inhabited horizons. The offerings from Anglophone Geography can make a valuable contribution to the continuous expansion and critical reflection of Cultural Geography in Brazil.

## REFERENCES

- ABRAM, D. *Becoming Animal: an earthly cosmology*. New York: Vintage Books, 2010.
- ABRAM, D. *The spell of the sensuous: perception and language in a more-than-human world*. New York: Vintage Books, 1996.
- ADAMS-HUTCHESON, G. Farming in the troposphere: drawing together affective atmospheres and elemental geographies. *Social & Cultural Geography*, v.20, n.7, p.1-20, 2017.
- ALMEIDA, M. G. A propósito do Trato do Invisível, do Intangível e do discurso na Geografia Cultural. *Revista da ANPEGE*, v. 9, n. 11, p. 41-50, 2013.
- ASH, J.; SIMPSON, P. Postphenomenology and method: styles for thinking the (non)human. *GeoHumanities*, v.5, n.1, p.139-156, 2018.
- BARUA, M. Volatile ecologies: towards material politics of human-animal relations. *Environment and Planning A*, v.45, n.1, p.1-17, 2013.
- BELLACASA, M. P. *Matters of care: Speculative ethics in more than human worlds*. Minneapolis: University of Minnesota Press, 2017.
- CRUTZEN, P. J. The “anthropocene”. *Journal de Physique IV France*, v.12, n.10, p.1-5, 2002.
- DANOWSKI, D.; CASTRO, E. V. *Há mundo por vir? Ensaio sobre os medos e os fins*. Desterro: Florianópolis, 2017.
- DARDEL, E. *O Homem e a Terra: natureza da realidade geográfica*. São Paulo: Perspectiva, 2011.

- DAVIS, H.; TURPIN, E. Art & Death: Lives between the fifth assessment & the sixth extinction. In: DAVIS, H.; TURPIN, E. (Orgs.) Art in the Anthropocene. Open Humanities Press: London, 2015, p.3-30.
- GIBBS, L. M. Water places: Cultural, Social and More-than-human Geographies of Nature. *Scottish Geographical Journal*, v.125, n.3-4, p.361-369, 2009.
- GIBBS, L. M.; WILLIAMS, K.; HAMYLTON, S.; IHLEIN, L. 'Rock the Boat': song-writing as geographical practice. *Cultural Geographies*, v.27, n.2, p.1-5, 2019.
- GREENHOUGH, B. More-than-human Geographies. In: LEE, R. Et. Al. (Orgs.) *The Sage Handbook of Human Geography*, Sage: London, 2014, p.94-119.
- HARAWAY, D. J. *Staying with the trouble: Making kin in the Chthulucene*. Durham: Duke University Press, 2016.
- HARAWAY, D. J. *When species meet*. Minneapolis: University of Minnesota Press, 2008.
- HAWKINS, H. *For creative Geographies: Geography, Visual Arts and the Making of Worlds*. Routledge: London, 2014.
- HAWKINS, H. Geography's creative (re)turn: Toward a critical framework. *Progress in Human Geography*, v.20, n.10, 2018, p.1-22.
- HAWKINS, H.; STRAUGHAN, E. *Geographical Aesthetics: Imagining space, staging encounters*. Ashgate: Surrey, 2015.
- HODGETTS, T.; LORIMER, J. Methodologies for animals' geographies: cultures, communication and genomics. *Cultural Geographies*, v.22, n.2, p.285-295, 2015.
- LORIMER, H. Herding memories of humans and animals. *Environment and Planning D: Society and space*. v. 24, n.1, p.497-518, 2006.
- LORIMER, J. Moving image methodologies for more-than-human geographies. *Cultural Geographies*, v.17, n.2, p.237-258, 2010.
- LORIMER, J. Multinatural geographies for the Anthropocene. *Progress in human geography*, v.36, n.5, p.593-612, 2012.
- MARKOVIĆ, I. Out of place, out of time: towards a more-than-human rhythmanalysis of smoking. *Cultural Geographies*, v.26, n.4, p.1-7, 2019.
- MCCORMACK, D. P. Molecular affects in human geographies. *Environment and Planning A*, v.39, n.2, p.359-377, 2007.
- PANELLI, R. More-than-human social geographies: posthuman and other possibilities. *Progress in human geography*. v.34, n.1, p.79-87, 2010.
- PHILLIPS, C.; ATCHINSON, J. Seeing the trees for the (urban) forest: more-than-human geographies and urban greening. *Australian Geographer*, v.51, n.2, p.155-168, 2018.
- PITT, H. On showing and being shown plants – a guide to methods for more-than-human geography. *Area*, v.47, n.1, p.48-55, 2015.
- POVINELLI, E. A. *Geontologies: A requiem to late liberalism*. Durham: Duke University Press, 2016.
- SIMPSON, P. Elemental mobilities: atmospheres, matter and cycling amid the weather-world. *Social & Cultural Geography*, v.20, n.8, p.1-20, 2018.
- SMITH, M. On 'being' moved by nature: Geography, emotion and environmental ethics. In: DAVIDSON, J.; BONDI, L.; SMITH, M. (Org.) *Emotional Geographies*. Ashgate: Hampshire, 2007, p.219-230.

THRIFT, N. *Non-representational Theory*. New York: Routledge, 2008.

TRIGG, D. The role of atmosphere in shared emotion. *Emotion, Space and Society*, v. 35, p.1-7, 2020.

TSING, A. L. *The Mushroom at the End of The World: On the possibility of life in capitalist ruins*. Princeton University Press: Princeton, 2015.

VANNINI, P.; VANNINI, A. What could wild life be? *Etho-ethnographic fables on Human-Animal kinship*. *GeoHumanities*, v.6, n.1, p.1-17, 2020a.

VANNINI, P.; VANNINI, A. Attuning to wild atmospheres: Reflections on wildness as feeling. *Emotion, Space and Society*, v.36, p.1-8, 2020b.

WHATMORE, S. *Hybrid Geographies: Natures Cultures Spaces*. London: SAGE Publications, 2002.

WHATMORE, S. *Materialist returns: practising cultural geography in and for a more-than-human world*. *Cultural Geographies*, v.13, n.4, p.600-609, 2006.