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CHALLENGES OF CRITICAL MATERIALISM IN THE SOCIAL SCIENCES:

Non-conventional Methodologies for Researching
Human-Nonhuman Relations

by

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SUMMARY OF THE DOCTORAL THESIS

INTRODUCTION & STRUCTURAL OUTLINE

An interdisciplinary orientation

A vast literature today discusses the limitations of anthropocentric perspectives on the social world, emphasising the agential power of the material world. Anthropocentrism outlines a pyramidal vision of the world, in which the “human” is placed at the top of the pyramid, valued as ontologically distinct from the rest of material existence — thus outlining the discourse of human exceptionalism —, while nonhuman bodies (implicitly, the natural ecological environment) are placed in lower domains of significance, described as passive, devoid of intrinsic value: in other words, perceived as instruments and resources subject to human goals and ambitions. Within this anthropocentric paradigm, scientific knowledge has also been predominantly preoccupied with human identity, culture and activities. The present thesis starts with a critical, reflexive attitude towards this epistemological and methodological positioning in social science research. By critically reviewing the specialised literature, the thesis fits into this contemporary trans-disciplinary effort to "democratise" the social world by recognising and affirming the agentivity of matter — and the active role of material processes in the construction of the social world.

This doctoral thesis is developed within an interdisciplinary paradigm, in which the basic sociological framework is supported by theories, concepts and perspectives from the fields of philosophy (especially phenomenological philosophy), gender studies, anthropology, as well as posthumanist studies (more precisely, the current of new materialisms in the social sciences). Critically circumscribed by these paradigms, my research focuses on the relationship between humans and nature. The main research interest, thus centered on human-nonhuman (social) relations, comes as an extension of contemporary reflections from the academic fields mentioned above. The thesis’ theoretical framework is situated within the broader intellectual movement known as “the turn to matter” in the social sciences, which advances critical perspectives on

anthropocentrism, pleading for a reconsideration of the power relations between the human species and its ecological habitat; between human and nonhuman bodies.

Methodologically outlined and developed around the "walk in the park" as a data-collection method, the thesis brings to light a series of structures (or typologies) of human experience in relation with nonhuman nature, highlighting the phenomenological character of human-nonhuman encounters—also, in the writing of its phenomenological findings, operationalising certain key concepts from new materialist literature.

The innovative character of the research project lies in (1) its profoundly interdisciplinary character, as well as (2) the implementation of a non-conventional methodology within a less-explored field of knowledge in the Romanian academic environment. The use of the walking interview in a phenomenologically oriented research is also an element of novelty, most research of this type focusing on the connections between people and specific inhabited places, as well as on the embodied/material/relational practices of people in these spaces, but without explicitly aspiring to a phenomenological understanding of human subjectivity in relation to the locations of interest. From my point of view, the study opens up some important pathways for future reflection in the social sciences (and beyond) — specifically, by proposing a reconsideration of the more-than-human (material) world, its significance and role in the construction of human subjectivity, identity and culture — in other words, in the construction of the social world.

The thesis is structured in two parts: Part I contains the critical literature review guiding the research project, and Part II describes the research design, findings and interpretation. In the end I advance my conclusions, emphasise the study's innovative character, discuss avenues for further exploration in this area, as well as the limitations of the research.

I. Literature Review

The literature review presents a critical, reflexive synthesis of new materialist epistemologies emerging in the social sciences. This theoretical movement poses specific challenges to the social sciences, questioning the anthropocentric positioning prevalent in contemporary scientific discourse. Since discourse can be defined, par excellence, as "that which constrains and enables what can be said" (Barad, 2007, p. 146), these frameworks create alternative lines of thought around which future knowledges can be constructed. The first chapter ("Contextual

Delimitations”) contextualizes my theoretical efforts, with their proposed aims and contributions, within the complex interdisciplinary debate on the materiality of the social world.

II. Research Project: Exploring human-nonhuman relations

The research study is designed within a phenomenological paradigm. The phenomenon of interest is human-nature encounters, explored in a natural (everyday) setting. The chosen research instrument is the walking interview, which can be characterized as a sociological walking-while-talking method, with the aim of exploring human-nature relations as they are *experienced* from the perspective of the embodied human being. The interview being located in space (in urban parks in Bucharest, Romania), it allows me to explore the participants’ subjectivities as they are formed, in the material-sensual encounter (or connection) experienced with their (natural) more-than-human surroundings.

PART I.

LITERATURE REVIEW

The table below offers a synthesis of the literature review advanced in this research project, summarising the five subchapters comprising the literature review.

Chapter	Description
1. Contextual Delimitations	<p>The first chapter served to contextually delimit the theoretical efforts of the thesis order to preserve its clarity and integrity. Five areas of delimitation are identified, placing the present literature review and research project within the existing discourse known as “the turn to matter” in scientific theory and practice. The thesis:</p> <ol style="list-style-type: none">(1) situates itself within the existing posthumanist strand of thought in the social sciences, aligning with contemporary critiques of anthropocentrism;(2) acknowledges the limited scope of its epistemological critique in the context of euro-western societies, and acknowledges the importance of non-western systems of knowledge;(3) places central focus on the critique of the dualistic system of assumptions which characterise the western scientific system of knowledge and knowledge-production, as advanced by feminist new materialists, focusing on the works of Val Plumwood, Donna Haraway, and Karen Barad;(4) employs the methodology of diffractive reason, as proposed by Haraway and Barad, as a different mode of engaging with texts and constructing the literature review, as opposed to the standard epistemological practice of reflection; consequently, this may be viewed as an innovative epistemological approach to the construction of the literature review and of the doctoral thesis as a whole.
2. The Material Turn in the Social Sciences	<p>The second chapter introduces what is commonly referred to as the ‘material turn’ in the social sciences, with a focus on new materialisms—the contemporary movement that aims to dismantle the traditional dualistic approach in western science to the conceptual articulation of matter, advancing new theoretical models that acknowledge the agency of matter, the embodied and embedded character of the human subject, and the co-constitution of discourse and matter in a world</p>

conceived as both discursive *and* material. The chapter also discusses in more depth five theoretical models of material agency (Bruno Latour's actor-network theory; Jane Bennett's account of 'vibrant matter' and the agency of assemblages; Sharon Krause's 'corporeal agency'; Diana Coole's 'phenomenal agency'; and Tim Ingold's account of material agency vs. material entanglement).

The third chapter focuses on the contribution of feminist thought to the new materialisms. Through the lens of several scholars, it drew a narrative that conveys how the underlying assumptions at the foundation of the western system of thought reveal themselves in the marginalizing effects they have upon bodies both human and nonhuman. The chapter traces a narrative of the 'becoming' of western knowledge in three steps, by:

3. **Feminist New Materialisms**

- (1) Identifying the subject-object split as the *a priori assumption*, inherited from the Cartesian metaphysical framework, that lies at the foundation of the western model of scientific thought;
- (2) Outlining the 'axis of dualism,' i.e., the interlocking sets of dualisms which lay the foundation for the 'master' model of human identity and culture, characterised by anthropocentrism and human exceptionalism (see **Appendix C**, 'The axis of dualism'). The fundamental assumptions of western scientific thought are discussed as manifestations of the 'crisis of reason,' with deep implications for what constitutes as valid knowledge;
- (3) Discussing the human attitude of domination over nature, detailing the ecological implications of the crisis of reason; elaborates on Val Plumwood's epistemological tools for identifying and overcoming the structural features of dualistic thought in a consistently nondualistic, non-anthropocentric manner;

Further, the chapter discusses key insights from two feminist thinkers who offer alternative epistemological configurations of human knowledge:

- 4) Donna Haraway's notions of 'natureculture,' 'significant otherness' and 'situated knowledge,' which enable us to formulate narratives that acknowledge the co-constitution of subject and object, culture and nature, human and nonhuman;
- 5) Karen Barad's ethico-onto-epistemological framework, 'agential realism,' with its profound implications for epistemology and for the notion of human responsibility and ethical accountability within a more-than-human world.

The concepts advanced by Haraway and Barad are of central interest in the research study, which seeks to test their applicability and operationalise them to describe human-nonhuman relations, departing from the perspective of the embodied human being in the context of everyday life.

The fourth chapter:

4. **Towards a Critical Materialism**

- (1) Discusses and addresses the main critical points raised against new materialism, illustrating the instabilities existing within the movement, which may tend to absolve the human species of the ethical responsibility granted by its reflexive nature and by its positioning as a dominant factor of ecological change on the planet;
- (2) Emphasises the importance of relying on insights from critical theory in order to critically apprehend the historical becoming of human-nonhuman relations; to this end, it discussed the system of *sovereign territoriality* that has historically shaped relations between (western) human civilisation and nonhuman nature, considering the legal and political processes which have, across centuries, contributed to the sedimentation, solidification and reification of the attitude of human domination over nature;
- (3) Outlines the premises for critical new materialist knowledges that, one the one hand, is preoccupied with the democratic organisation of ecological life on earth; and, on the other, account for the distinctive character of human agency in the material-discursive becoming of the world.

5. **Theoretical Foundations for a Phenomenological Research Design**

The fifth chapter establishes the theoretical foundations that justify the research project's phenomenological design. I discuss phenomenology through the lens of Maurice Merleau-Ponty's phenomenology of perception. In a cross-disciplinary move, in this chapter I identify points of connection and similarity between Merleau-Ponty's phenomenology and (feminist) new materialist thought; and I also discuss contemporary advances in the field of cognitive studies (4EA cognition), which also stipulate the embodied, embedded nature of human cognition.

PART II.

RESEARCH PROJECT

The study was designed around the following research question, formulated in a phenomenological manner, so as to direct attention to the immediacy of lived experience.

Research Question

What is the experience of encountering nonhuman nature *like*—the embodied experience of being in its presence?

Research Objectives

- (1) To identify some important structures of human experience that emerge in encounters with nonhuman nature.
- (2) To test, operationalise and *dereify* key concepts used in new materialist literature.

The phenomenological findings, upon analysis and interpretation, will serve to attain the second objective by enabling me to:

- i. *test* whether the highly abstract concepts discussed in the literature review point towards essential aspects of the phenomenological experiences of human beings in relation with nonhuman nature;
- ii. *enrich* the theoretical discussion with nuanced accounts of the original experiences to which these concepts refer — given that the conceptual terrain is a complex one, wherein many terms are not easily translatable to the Romanian language — so that readers, theoreticians and researchers alike may more easily (and personally) grasp their significance;
- iii. *articulate the relevance* of this new vocabulary within social science research and identify potential ways in which these frames of thought may be brought closer to mainstream sociological concerns, specifically in the study of human-nonhuman relations. At stake is the pragmatic operationalisation of this conceptual framework in sociological research.

METHODOLOGICAL DESIGN

I introduce the innovative use of a qualitative data collection method to study encounters between humans and nonhuman nature: namely the walking interview, with a phenomenological approach. The walking interview is part of a diverse range of research approaches defined as *walking methodologies*, as proposed by Stephanie Springgay and Sarah Truman (2018) in their volume *Walking Methodologies in a More-than-Human World: WalkingLab*. According to the authors, these methods are characterized by four major themes: *place/space*, *sensory inquiry*, *embodiment*, and *rhythm*. The notion of *place/space* is integral to walking methodologies, as walking connects the body to the environment, allowing for a state of receptivity to the material-sensual environment, and involving “situated and relational modes of participation.” This approach allowed me to conduct *sensory inquiry* into the *embodied* experience of the participants and the *rhythms* that characterize it; here, rhythm is understood as the varied “flows of everyday life” (ibid.).

The notion of *embodiment* is conventionally understood through the lens of phenomenology, when the researcher and the participants explore “the lived experiences of what it means to move in a particular place” and to be sensuously embedded within it (ibid.). This also leads to the phenomenological orientation of my research (phenomenology being the study of lived experience), which allows me to extract from participants’ narratives some key structures of human experience that emerge in encounters with nonhuman nature.

The walks/interviews took place in parks chosen by the participants, with the routes not being chosen in advance: the participants decided, during our walks, the routes we would follow and the pace of our walk. The interviews took place in both warm and cold weather, with temperatures both high and low. Half of the walks unfolded in the evening, after working hours, and the others in the afternoon; only one interview took place in the morning. The walks varied in duration: the longest interview lasted one hour and 29 minutes, and the shortest only 26 minutes. Most of the walks lasted approximately one hour. Thus, I conducted 18 interviews located in 8 different parks in Bucharest, with 11 women and 7 men aged between 21 and 53 years old, with an average age of 30.5. Participants come from various backgrounds: from students, to university lecturers, doctors, accountants, engineers, entrepreneurs and people with artistic professions.

From my experience working with this method, I can argue that it holds significant potential for broadening the horizons of knowledge in the social sciences. Human knowledge is inherently socio-spatial (Anderson, 2004, p. 254), as inner (self) and outer (place) are always threaded one through the other through the medium of the body, which “links [the] self to lived place in its sensible and perceptible features” (Casey, 2011, p. 683). In light of this knowledge, I find the waking interview to be a highly relevant research method, which can be used in understanding the relationships between people and the places they inhabit.

In this sense, I implicitly plead for using more (kinds of) walking methodologies as research instruments recognize the body, but also the material environment, “as integral part[s] of the self” (Casey, 2001, p. 684). By recognizing the agency of the body and the material world in the formation of human subjectivity, identity, and culture, and by affirming the inseparability of “self” and “space” (or “nature”), such research efforts can broaden the horizon of sociological knowledge of the *naturalcultural* world in which we live, enabling us to formulate alternative, nondualistic theoretical perspectives and practical approaches—approaches that do not categorically separate “mind” from “body,” “culture” from “nature,” or “human” from “nonhuman.”

In the table below, I briefly outline the methodological components of my study.

Methodological design choice		Description
2.1	Research approach Phenomenology	The study of lived (embodied) experience, focusing on the formation of subjectivities in everyday life.
2.2	Data-collection instrument Walking interview	The data was collected through unstructured qualitative interviews conducted while walking-and-talking in parks. The interviews were recorded on a voice recorder application for smartphones.
2.3	Research setting Urban parks	The interviews were situated in urban parks in the city of Bucharest, conceived as liminal nature-culture or <i>naturalcultural</i> spaces.
2.4	Sampling strategy Purposive sampling (Criterion sampling)	The sample consists in 18 participants who fulfill the following criteria: (1) reside in the urban environment of Bucharest, the capital city of Romania, and (2) have a habit of spending time in parks. Appendix D: Table of participants, with demographic data.
2.5	Data analysis Thematic analysis	The interview data was transcribed and coded in order to identify some main structures (typologies/themes) of the human experience of encountering nonhuman nature as emerging from participants' narratives.

In the following table, I detail the walking interviews conducted for the research project.

Total number of interviews	18	
Data-collection period	February 2022 – June 2023	
Number of parks in Bucharest where the walks took place	9	
Average duration of the walks	53 minutes (shortest walk: 26 minutes; longest walk: 1h 29 minutes)	
Temporal setting (number of walks)	time of day	morning (before 12 p.m.) – 1 afternoon (after 12 p.m.) – 8 evening (after 5 p.m.) – 9
	day of week	weekdays – 13 weekend days – 5
	season of year	spring – 6 (March, April, May) summer – 6 (June) autumn – 4 (October, November) winter – 1 (December)
Environmental factors (number of walks)	weather conditions	clear – 7 partly cloudy – 7 mostly cloudy – 1 overcast – 3 (1 with light rain)
	degree of crowding	uncrowded – 12 crowded – 6

ETHICAL CONSIDERATIONS

All of the people who participated in this study are consenting adults. Before the interview took place, the participants had the opportunity to gain all necessary clarifications pertaining to the nature of their participation in the study. They received and read an information sheet regarding the study, after which they signed an Informed Consent Form (see Appendix E). The form ensured the protection of personal data in accordance with GDPR provisions; participant's names were anonymised and pseudonyms were used throughout the discussion of the findings. Some of the participants had additional questions, mainly regarding the practicalities of the walk (for example, asking if they could sit down if they felt the need to).

CHALLENGES ENCOUNTERED & METHODOLOGICAL LIMITATIONS

Concerning the limitations of a phenomenological approach, it is important to note that the phenomenological method inquires into the quality of lived experience itself, not the frequency of its occurrence. I can show that certain phenomena exist, and I can substantiate these claims; however, I can make little claim as to the generalizability of the findings, whether in the context of the urban population of Bucharest, the urban population of Romania, or the urban population of western societies. It is worth stating, then, that this research project does not make any claim to a “transcending” perspective; it simply sets out to explore in depth a particular dimension of human experience, in a specific spatial and temporal context, seeking to fulfill an existing gap in knowledge.

It is true that the kind of research I performed does not have the benefits of quantitative research: factuality, reliability, generalizability. It also does not demand the kind of detached attitude required of the quantitative researcher striving for objectivity and, arguably, for disembodiment via “emotional distancing mechanisms” (Plumwood, 2002, p. 44). Precisely in this lies the value of phenomenological research, and the different nature of its contribution to human knowledge. A reader may more easily resonate, and find themselves in introspective dialogue with, in-depth

accounts of human experience presented in textual form, than with statistics which seem to bear little trace of the situated and embodied human subjectivities to which they refer. This echoes van Manen's statement that the knowledge that emerges through a phenomenological approach should invite engagement, introspection, and response: it should "animate and live in the human being who dialogues with the text" (van Manen, 1990, p. 21). Further, in the context of this study, the emergent knowledge should demonstrate the application of specific new materialist concepts in sociological research; this aim is further served by the phenomenological approach, which allows me to connect abstract conceptual thought to the textured ground of human lived experience (in relation with more-than-human nature).

Finally, as another constraint posed by the study, working with new materialist terminology presented a real challenge. Due to the abstract, sophisticated nature of the working concepts (*natureculture*, *significant otherness*, *entanglement*, *agential realism*, *intra-action*, *spacetime mattering*, *diffractive reading*), they were difficult to operationalise in the interpretation of the results in English, and even more difficult to translate/adapt into the Romanian language (see Appendix B, 'Translation of terms'). The research thus also brought the opportunity to naturalize this vocabulary in both languages, making the terminology more accessible for those researchers who would like to understand certain phenomena and to generate knowledges in the new materialist/posthumanist paradigm in the social sciences.

The walking interview as a curated experience

My own positioning as a researcher is an important factor in the unfolding of the present research project. I hereby acknowledge the significant meaning that I personally attribute to nature in my life, meaning which has been the initial driving force behind this project. I conceive my role in the elaboration of the research process, and in the facilitation of the walking interviews, as that of a *curator*. In this context, the curator delimits an area of interest (a phenomenon, an experience), designs and conducts the study, analyses the data, draws connections to the theoretical framework that supported the research project to begin with, and offers her conclusions. For the duration of the walking interview, the researcher is not only embodied and situated with-*in* the phenomenon being studied, but is an *intra-active* part of it, *acting within* the phenomenon.

Further, the walking interview as applied in this study does not make any claim to being an experience of complete 'immersion' in (physical interdependence with) wild, non-humanized

nature, or ‘*nature*’ as idealised (e.g., pristine nature, pure, unaffected by human activity). The walking interview is a curated experience, situated in a space of curated ‘nature’, conveniently facilitated by resources available in the city. The urban park is a space cosmeticised by human intervention, made comfortable for human activities, in order to serve specific human needs for recreation, socialisation, exercise, and entertainment. The study has an *agential realist* approach: the walking interviews are an embodied exploration of human-nonhuman relations as they unfold in the *real* context of city dwellers’ everyday lives: in the heart of the city, in the urban park as a liminal *natureculture* space ripe with limitations, contradictions, and personal meanings for the participants.

Finally, while the interviews are conducted *while walking*, the interview is, nevertheless, a verbal mode of capturing information. While I did introduce verbal notes into the recordings (regarding the spaces we walked through, landmarks in the environment, participants’ actions), these observations are limited in scope and amount. Future studies in this direction could rely more on participant observation in exploring human-nonhuman relationships and interactions, and could also use other media to record rich data about the phenomenon, such as taking photographs or recording videos during the walks.

I chose not to make use of these additional data capture tools, considering that they could interfere with the research situation, interrupting the natural flow of "walking in the park." Although such data could have added complexity to my study, I preferred to facilitate a more natural experience for the participants, allowing the walks to unfold as closely as possible to participants’ natural, spontaneous patterns of interaction with the natural environment.

RESEARCH FINDINGS

The study consisted of a phenomenological exploration of an everyday experience of *inter-* and *intra-*action of human beings with nature, or with the nonhuman/more-than-human dimension of their existence. People's walks in the park, as an everyday activity, constituted the central point of my investigation. The phenomenon of interest consisted, essentially, in human-nonhuman encounters — which means that I sought to explore these “encounters” from the perspective of the embodied human being, relating to nature through the prism of the whole body, which is sensible and perceptive to its surrounding environment. Through this research effort, I wanted to advance phenomenological descriptions of these patterns of engagement, or *intra-action*, in close relation to the new materialist concepts of interest discussed in the literature review.

The study was designed around the following research question:

(Research Question)

What is the experience of encountering nonhuman nature *like*—the embodied experience of being in its presence?

In order to guide me in exploring the phenomenon, the question was formulated in a phenomenological manner, so as to emphasise the quality of the participants' *lived experience*. It was theoretically grounded in the concepts and theories analyzed in the literature review, such as: *inseparability*, *agential realism*, *significant otherness*, *natureculture*. Based on this guiding question I designed my research approach, which allowed me to direct my attention, without preconceptions, to human-nonhuman encounters as they are *lived* by the human being.

Based on participants' discourses, following a thematic analysis, I developed eight main structures or typologies of human experience in encounters with nonhuman nature, thus fulfilling the first research objective. I identified these structures by conducting walk-through interviews in a specific context in space and time: in the urban parks of Bucharest, between 2022 and 2023. The ‘Findings’ chapter is structured in accordance with the eight main phenomenological themes identified across the interviews. These themes can be understood as central dimensions of the human experience under study. In the efforts to interpret the phenomenological results in close relation to new

materialist terminology, I consider that the paper has achieved its second research objective: testing, operationalizing and de-reifying key concepts used in the literature of new materialisms.

The eight structures of human experience in relation with nonhuman nature are rendered below, each section being accompanied by an explanatory phrase, as well as one or two representative quotes from the interview transcripts.

1. Concrete (and) borders: Everyday life in the metropolis

This theme refers to the participants' perception of how they feel when they are in the urban environment—contextualizing, through contrast, the differentiating characteristics of the experience of being in the park, or in nature.

“Chaos. Madness. Stress. Agitation. Running... counter-time. That you are always against time. Always. Uncertainty. You don't know, you know you're leaving for work but you don't know when you'll be back. No... counter-time.”

”[Time spent in the park] is also a different kind of experience. [...] in fact, it allows me to extract myself from the usual environment—home, commuting to school, school—, an environment that overburdens me. [...] So... it offers me something else. Something other than what my normal life is. It's another dimension of my life that I don't really have the time to explore. Or a dimension of life in general, as it seems to me that living in cities, working so much, I have lost touch with the environment around me.”

2. ”A time outside of time”: Shifting perceptions of temporality and rhythm

Another experiential theme that emerged from participants' discourses concerns the subjective perception of temporality. Participants experience the passage of time differently when they are in nature, suggesting that the natural environment invokes a different, slower rhythm compared to the fast, dynamic, task-oriented rhythm of everyday life in the city.

“The city instils in you a rhythm that's often hard to get rid of. And it's a rhythm you don't even realise you've adopted, and possibly you don't even realise you have it, and it seems to you that it's a given and it's how everyone else works. [...] Here [in the park], things stay in place and allow you to go towards them, they don't necessarily hit you on the street while you're walking. It's... [long pause]... like a permission. And you can stay... I don't know, it seems that in the city you

don't have the choice and the comfort to remain in one spot for an indefinite period of time and to observe. And at some point, you can't even observe in such detail, because what's around you changes so often. On the other hand, changes taking place in nature are much more... much longer lasting processes.”

“[In the park], it is a time non-time. That is, it is a time in which there are no more times. It's a sort of 'I'm done, I don't check my phone anymore, I don't think anymore'—I pause.”

3. Sensuous engagement: Embodied perception and significant otherness

“Sensuous engagement” and “embodied perception” refer to participants’ active participation and engagement with the surrounding environment *through the senses*, illustrating the embodied nature of perception. Participants’ perception “extends” into the environment, affectively and sensitively in relation to other nonhuman bodies, relating to their *significant otherness*.

“Well... if you like nature, naturally you like what you see at the birds’ show. You like how they swim, how they sing, how they fight, how they frolic—Look! This is... something! [Points to the lake, towards a swan.] Look how beautiful she is—ah, look at her! [Pauses, regarding the swan.] You realize that you’re ecstatic when you see something like that. [Pause] And then... you enjoy every thing they do.”

4. Pacified and mindful: The embodied mind in resonance with nature

Participants recurrently describe experiencing a "quieting" of the mind when spending time in the park: a lightening of their mental activity, a release from the thought patterns that commonly occur in the course of everyday life.

“Nature gives me this opportunity to slow down my brain and just think, and not to think in an accelerated way and always look for something to entertain me, but just to think about important, essential things that really interest me. [...] Because that's what the internet and the city represent for me, they express and represent an opportunity to get rid of what upsets me. But in the park... at some point, you could look for distractions, but in the end you will run out and it will be just you, with yourself and your thoughts, and you end up thinking about important things—not in a way that tears you down, but in a more constructive way, because the environment you are in is very gentle and kind, and it receives you... It's very calming, very comforting. And then it's very easy to think about things, to resolve conflicts, to talk to people.”

5. “A return to origins”: Re-membering and the lived experience of belonging

This theme refers to the spiritual dimension of life. Participants report a feeling of being closer to the essential aspects of life or the “totality of life”; of being connected to a deep, inalienable source of inner peace; they variously describe this state as a form of “primordial connection”; as a return to “all that is simple in life”; or even as a “return to origins.”

“It’s a kind of therapy, if you think about it. In fact, it’s not therapy, I think it’s more of a remembering... of what we have, perhaps, forgotten. We’ve definitely forgotten. But the fact that we remember, and we have this wonderful place where we can remember, is very good. For me, at least.”

“But I am a part of nature; only that when I am in the city, between the blocks and on the asphalt, I no longer feel that, and I can no longer enjoy it in the same way as I enjoy it when I am in the park, or on the lakeshore, or on the seashore. That’s the difference. You know?”

6. Freedom to be oneself: On the subjective experience of identity

Participants report that they access a qualitatively different sense of personal identity when they are near nature, describing a sense of a self fully connected to the world, beyond the social roles they fulfill as part of their everyday lives.

“As you’re in nature, and you connect with it, you also connect with yourself in a less toxic, quieter environment, an environment where perhaps you can connect more authentically with what you’re really thinking, than if you were having dinner with friends, who most of the time influence you when they ask you “What are you doing?” and, although you are not ok, you say “Yes, I am ok” and cry on the inside. You know, nature will never pressure you to say something that is not true. Rather, you are alone there, stripped, so to speak, of all these masks that we display in society.”

“Nature is... a place, a space where it seems to me that you can enjoy much more when you are alone, because there is no expectation, there is no jamming and no need to be in a certain way, to speak something, to issue... to force, yes, yes. So for me nature somehow equates the freedom to be you. And I think it gives us this great... it gives us this great privilege to be ourselves, just as nature is itself, despite all our attempts to change it. [Laughs]”

7. Nature in the active voice: Creating common (social) ground

Parks (and nature in general) are perceived as common spaces that “level” the playing field for human beings. Nature is depicted as an active participant in the constitution of human sociality: specifically, as an equalizer for human beings.

”I see the park as a common point for all—now it's very superficially said—social classes, for every human. I mean, to the park come all sorts of people, from those we see on TV [...] to homeless people. And somehow it gives you a sense of... community is a lot said, but you don't feel alone. And if you have a city without parks, the city becomes separated only into neighborhoods. You have the neighborhoods of the ultra-rich, the rich, then a kind of pseudo middle-class, then you have the ghetto area. And somehow all you can feel is that you belong to a certain area, a certain stereotype of a person, and you are nothing more than that. You don't have any common land for everyone... everyone stays within their small area, related to a few.”

“For example, in the subway, people learn to ignore each other because otherwise they feel embarrassed, and this also has to do with proximity. But in a park, for example... these conventions disappear, in a way. And I think that's why I, at least, feel closer to the people I see in the park. Even if, I don't know, I'm on one side of the lake and I see a man on a bench on the other side of the lake. It's a different kind of closeness. Is it a... spiritual closeness?”

8. Beyond language: On thoughtful sense and bodily sensibility

For many of the participants, words are not always readily available to convey the inner states they experience in nature. The textures and qualities of their experiences in the natural environment seem to lie below the threshold of the ‘natural attitude of everyday life,’ — the experience is felt through the sensibility of the body, but eludes participants’ ability to conceptually articulate it.

“Some ‘why’ questions [that you posed] made me think, because I didn't have an immediate answer; that is, I didn't know exactly how I should... express that state of being. I couldn't find the

words... I mean, I knew, for example, why I feel the need to return to nature, or why I feel safe in nature. I simply didn't know how to... articulate it.”

“In words, what can I say—it's beautiful. These are things that you miss [...]. Even now, you leave and... after a longer period without going to the park, you think about it, you want to be there, without understanding why, without wondering why. You say you want to go for a walk. But I say that behind this is the psyche's need to gather resources of tranquility, calmness, peace. I don't know how to say it otherwise.”

A main objective of the thesis was to test and verify the applicability of some of the theoretical concepts critically analyzed in the literature review — in particular, the main notions advanced by Donna Haraway, *natureculture* and *significant otherness*, and by Karen Barad, *inseparability*, *agential realism*, *intra-action*, *spacetime mattering* — in relation to essential phenomenological aspects of the human experience of encountering nonhuman nature. The analysis and interpretation of the data suggested how these concepts, which at first seem to be very abstract, can nevertheless be operationalized and thus used to describe and understand human-nonhuman encounters in their experiential dimension.

CONTRIBUTIONS TO SOCIAL SCIENCE:

8 structures of human experience in relation with more-than-human nature

I consider that the present thesis contributes to the advancement of knowledge in the social sciences on three levels.

Firstly, it does so by replicating the walking methodology in a unique research context: conducting walks in the urban parks of Bucharest, Romania, between 2022 and 2023. In the Romanian research space, this is a new, alternative approach that enables the exploration of the human-nature relations, in particular (and the spaces in which they live, in general), bringing to the forefront the agency of the nonhuman material world.

Secondly, the study contributes by concretely identifying some key structures of human experience in encounters with more-than-human nature. Guided by the phenomenological research question throughout the research process, I have identified eight typical characteristics of this experience by conducting walking interviews in a specific spatial and temporal context. These are the following:

1. Concrete (and) borders: Everyday life in the metropolis
2. “A time outside of time”: Shifting perceptions of temporality and rhythm
3. Sensuous engagement: Embodied perception and significant otherness
4. Pacified and mindful: The embodied mind in resonance with nature
5. A “return to origins”: Re-membling and the lived experience of belonging
6. Freedom to be oneself: On the subjective experience of identity
7. Nature in the active voice: Creating common (social) ground
8. Beyond language: On thoughtful sense and bodily sensibility

These structures or typologies of experience are the thesis' main conceptual *and* empirical contributions. I believe that these are relevant to contemporary, trans-disciplinary debates on the materiality of the social world; further, they are especially relevant in considering how the social sciences might *re*-think their epistemological and methodological orientation towards the material world, and towards the (social) relations between the human species and the natural environment that sustains it.

Thirdly, the study brings an element of innovation by attempting to operationalise several key concepts from new materialist and posthumanist strands of thought. A main objective of the thesis has been to test and verify the applicability of these concepts — specifically, the main notions advanced by Donna Haraway, *naturecultures* and *significant otherness*, and by Karen Barad, *entanglement*, *intra-action*, *spacetime mattering* — in relation to essential phenomenological aspects of the human experience of encountering nonhuman nature. This kind of terminology aims to dismantle the anthropocentric discourse of western science, affirming the agentivity of the material world and proposing nondualistic theoretical frameworks for understanding the more-than-human social world. The analysis and interpretation of the findings has demonstrated how these concepts, which at first appear to be highly abstract, can nevertheless be operationalised in order to speak of human-nonhuman encounters. The study has validated the utility of these concepts through the lens of phenomenological inquiry, “weaving” the terms into phenomenological descriptions of human-nonhuman encounters—and illustrating how this vocabulary can be used to describe aspects of the human experience of encountering, and engaging with, nature.

In this way, in this paper I have proposed a nondualistic sociological understanding of the more-than-human world in its agential *realness*, articulating “the conjoined dance of face-to-face significant otherness” (Haraway, 2000, p. 41) — the sensuous, embodied encounter between the human being and nature, wherein the human relates with-in the more-than-human (social world) of which it is a part, remembering its own nature: *entangled* with nature. Through its phenomenological approach, the study highlights the inseparability/entanglement of the categories “human” and “nonhuman,” describing a *naturalcultural* world in which humans *inter-* and *intra-*act with nonhuman nature. In this way, the study also highlighted the inseparability of “mind” and “body,” illustrating how human subjectivity is always formed through the medium of the

sensing/sensible body; and, moreover, through the body's *intra-action* with-in the environment in which it finds itself.

The research findings propose a nondualistic understanding of the world, showing that the conceptual dualisms of mind-matter, culture-nature, human-nonhuman have no experiential ground to stand on. The study suggests that participants' subjectivities, experiences, and perceptions *emerge from their intra-actions with the natural environment*, their perceptive sensibilities naturally attuning to their surroundings. The narratives of these urban dwellers suggest that *entanglement* with more-than-human nature is a common phenomenon of everyday life, one woven into the very fabric of human *being*; and, perhaps, one not often reflected upon, or easily articulated.

No solid border can be drawn, either between mind and body, or between human and nonhuman. It seems, therefore, that we cannot speak of the 'body' or the 'mind' as such; we ought, instead, to speak of the *mind-body being-in-the-world*—or the 'body-subject' being *within* the world, lodged within it and responsive to it. Following participants' narratives, we find that the border between inner (self) and outer (nature) is not solid at all. The states of being, feelings and sensations described by the participants in this study cannot be understood but as the co-constitution of mind *and* matter; self *and* other; human *and* nonhuman. The connection is primordial, in that it is not an exterior connection between separate entities. None of the categories can be described independently of the other, as the principle of entanglement states. And although the human-nature connection dims and is often forgotten in the fast pace of everyday urban life, it is always available for re-membering. It is an intrinsic capacity of the body itself; an intrinsic feature of the relational field of *spacetime-mattering*.

Participants appear to carry a hint of nostalgia, a kind of longing to (re-)connect with a certain way of being in the living lifeworld; and through immersion with-in nature, they find what they were looking for. This way of being is achieved by tuning into the body and attuning to the surroundings, and the perceived gentleness and rhythmic flows of natural environments enables them to relax into their bodies. As such, in nature they experience a feeling of ease and familiarity, a rhythm that is slower than the one imposed by life in urban society, and a sense of personal freedom coupled with peace of mind.

The body, embedded in the physical presence of more-than-human nature, has a voice of its own, making itself heard: “I belong here. Here, I find comfort, safety, and freedom. Here, I am grounded. And I am not wholly separate from the environment that holds me.”

APPENDICES

APPENDIX B. TRANSLATIONS OF TERMS

A proposed translation of the key new materialist terms employed in this thesis into the Romanian language.

agential realism ▪ *realism agențial*

(quantum) entanglement ▪ *inseparabilitate (cuantică)*

intra-action ▪ *intra-acțiune*

natureculture ▪ *naturăcultură*

significant otherness ▪ *alteritate semnificativă*

spacetime mattering ▪ *spațiu timp materie*

APPENDIX C.

THE ‘AXIS OF DUALISM’

subject	object
mind/spirit	matter/body
rationality	animality
freedom	necessity
reason	emotion
male	female
culture	nature
civilised	primitive
master	slave
coloniser	colonised
human	nonhuman
self	other

The table presented above is an adaptation after Plumwood (*FM*, p. 43).

It illustrates the key binary pairs that make up the ‘axis of dualism,’ the unquestioned sets of assumptions about the world at the foundation of western thought, underlying the master model of human identity and culture. According to Plumwood, this dualistic framework for ‘knowing’ the world is built on dynamics of power which stem from the uneven valorisation of one column of the axis over the other. The operating sets of assumptions regarding what we understand as ‘mind’ and ‘matter,’ ‘culture’ and ‘nature,’ the ‘human’ and the ‘nonhuman,’ ‘man’ and ‘woman,’ and ‘master’ and ‘slave’ materialise at large scales in the context of contemporary (and historically

recurrent) acts of violence, domination and oppression systematically committed by the master 'subject' against both the human and the nonhuman 'other,' devalorised to the status of 'object.'

APPENDIX D.

TABLE OF PARTICIPANTS

Participant pseudonym	Gender	Age	Occupation	Date	Location of the walk (Park)	Time of start	Duration of the walk	Weather conditions	Degree of crowding
1 Laura	female	21	postgraduate	19.02.2022	Cișmigiu	17:05 evening	55m	partly cloudy	crowded
2 Iris	female	24	fashion model	29.03.2022	Moghioroș	18:04 evening	59m	partly cloudy	crowded
3 Rose	female	20	undergraduate	24.10.2022	Carol	16:46 afternoon	58m	clear	crowded
4 Justin	male	53	entrepreneur	22.10.2022	Tineretului	13:35 afternoon	36m	partly cloudy	uncrowded
5 Caitlin	female	53	medic	30.10.2022	Tineretului	14:33 afternoon	27m	partly cloudy	uncrowded
6 Eve	female	33	university lecturer	26.11.2022	Botanical Garden	15:35 afternoon	1h 9m	overcast	uncrowded
7 Brandon	male	33	artisan	10.12.2022	Tineretului	15:18 afternoon	29m	overcast	uncrowded
8 Olivia	female	35	university lecturer	21.03.2023	Plumbuita	18:59 evening	1h 10m	partly cloudy	uncrowded
9 Soren	male	28	photographer	07.04.2023	Tineretului	14:52 afternoon	55m	mostly cloudy	uncrowded
10 Aria	female	25	postgraduate	28.04.2023	Cișmigiu	11:12 morning	26m	partly cloudy	uncrowded
11 Zoe	female	20	undergraduate	13.05.2023	Carol	15:24 afternoon	1h 27m	clear	crowded
12 Adam	male	21	undergraduate	17.05.2023	Herăstrău	14:45 afternoon	1h 29m	overcast, light rain	uncrowded
13 Derek	male	34	government worker	01.06.2023	Herăstrău	21:24 evening	35m	clear	uncrowded
14 Celine	female	42	accountant	07.06.2023	Morarilor	17:38 evening	1h 7m	clear	uncrowded
15 Peter	male	33	engineer	07.06.2023	Moghioroș	20:31 evening	32m	clear	crowded
16 Gloria	female	33	entrepreneur	08.06.2023	Kiseleff	17:23 evening	48m	clear	uncrowded
17 Elias	male	22	DJ	27.06.2023	Moghioroș	19:46 evening	43m	partly cloudy	crowded
18 Diana	female	20	undergraduate	29.06.2023	Botanical Garden	18:22 evening	1h 22m	clear	uncrowded