

JYX



**This is a self-archived version of an original article. This version may differ from the original in pagination and typographic details.**

**Author(s):** Bister, Sofia

**Title:** Thinking with traces : A posthumanist reading of human and nonhuman agencies in Zhu Yingchun's The Language of Bugs

**Year:** 2024

**Version:** Published version

**Copyright:** © 2024 The Authors.

**Rights:** CC BY 4.0

**Rights url:** <https://creativecommons.org/licenses/by/4.0/>

**Please cite the original version:**

Bister, S. (2024). Thinking with traces : A posthumanist reading of human and nonhuman agencies in Zhu Yingchun's The Language of Bugs. *Trace*, 10, 136-159.

<https://doi.org/10.23984/fjhas.136668>

# Thinking with Traces: A posthumanist reading of human and nonhuman agencies in Zhu Yingchun's *The Language of Bugs*

SOFIA BISTER

*University of Jyväskylä*

s.sofia.bister@jyu.fi

*The Language of Bugs by Zhu Yingchun (2018) is an art book wavering between the linguistic and the bodily, visual arts and literature. Consisting of thousands of traces left on paper by real-life insects and their bodily movements, it does not contain any text traditionally readable for humans, but claims to be a book written entirely in the language of insects. The traces indicate nonhuman agency for the insects and present writing and literature as subjects of nonhuman actions and messy interspecies collaboration. At the same time, the book rises questions on insect "language" and the possibility of ethical representation originating from a very human point-of-experience. In this article, I reflectively explore different crossings of human and nonhuman agencies in *The Language of Bugs*, as well as how the book engages with questions of representation and materiality, writing and literature in the framework of posthumanist reading. I analyse the book as participating in the attempt to notice more-than-human ways of being in literature and culture, which are traditionally only perceived through human agency. The context of my reading is threat posed by ecological crises and especially the decline in insect populations for the future of the planet. I argue that Zhu Yingchun's book represents a wider shift in thinking about the natural world and humans' place in it. Ultimately, the book articulates one very basic question: can literature widen to include traces of nonhuman movements?*

KEYWORDS: insects in literature; insect writing; multispecies literature; non-human agency; nonhuman language; posthumanist reading

## Introduction

A beetle, an ant, and a caterpillar all leave traces. But their bodies are not alike, and their ways of moving and acting cause differing spots and marks. *The Language of Bugs* by Zhu Yingchun (2018)<sup>1</sup> claims to be a book written entirely in the language of insects. After the stylized title, there's not a single conventional letter or word traditionally readable on the book's pages. Instead, it consists of thousands of traces left on paper by real-life insects and their bodily movements. In this article, I reflectively explore crossings of human and nonhuman agencies in *The Language of Bugs*, as well as how the book engages with questions of representation and materiality, writing and literature in the framework of posthumanist reading. The book participates in the attempt to notice more-than-human ways of being in literature and culture previously perceived through human agency only. I consider the book's conflicting processes of representing insects through a one-way anthropocentric mirror and as indicating actual nonhuman agency and showing insects as material, agential beings. Finally, I ask if the book I am trying to read could be considered opening literature up for the agency of these insect species. Can the definition of literature widen to include traces of nonhuman movements and agency?

The context of my reading lies in the threat that current ecological crises and especially the decline in insect populations pose for the future of our planet (see Wagner et al. 2021). Humans need to see and engage with insects in cultural worlds, not just as metaphors for human experiences but as the complex, concrete, and crucial species they are in the material world that literature is part of. This process, which *The Language of Bugs* is involved in, is part of a wider shift in human thinking about the natural world around us and humans' place in it. Understanding different ecological crises demands humans to reimagine our perception of the order of the world. Human beings can no longer be seen as superior to nonhumans, but rather as parts of multitudes of relations, entanglements, and knots (see Barad 2007; Haraway 2016; Latour 2005). Similarly, as Wagner et al. (2021) point out, acting on insect decline requires a change in societal attitudes towards insects. This shift in meaning-making processes can often begin in art and cultural texts, which aim to reconfigure humans' relationship with and in nature.

The works of Zhu Yingchun can be seen as contributing to the discussion about human and nonhuman relations. *The Language of Bugs* consists of the book itself, an accompanying booklet<sup>2</sup> *The Birth of The Language of Bugs* (2018, henceforth *The Birth*)

---

1 I would like to warmly thank book designer and artist Zhu Yingchun for his permission to use images of *The Language of Bugs* in this analysis, as well as his kindness in engaging in conversation with me.

2 I treat the booklet as an explanatory part of the book, part of its meaning-making pro-

opening the process of the book's creation, and a video<sup>3</sup> linked by a QR-code in the booklet. According to the booklet (*The Birth*, 4, 8), Zhu Yingchun first noticed the intricate traces left by insects on the surfaces of leaves in his garden. This change in perspective led him to place mounted papers and plant-based dyes in the garden, along the insects' paths. The dyes left colour on the insects' bodies, so their movements left traces on paper. Zhu Yingchun then collected these traces and arranged them to resemble all the material conventions associated with a book as an object. The book presents conventional human text only on its final, hidden and folded away page, which contains the information required from all printed books, such as publisher, printing and copyright information.<sup>4</sup> The text seems to be a non-text, or a text wavering between the linguistic and the bodily, visual arts and literature. My aim is to see insects between the covers of a human-made cultural object but still moving, resisting capture and definition. I consider how the traces left by real insects challenge us to reconsider the ways insects can be read and written in literature and cultural texts.

The making process of *The Language of Bugs* seems to be a typical way of working for Zhu Yingchun, a poetics binding the artist's works together. His other works, including those titled on his English webpage *Bug's poetry*, *The Classic of Bugs*, and *Ant*, to name a few, also draw inspiration from nonhuman beings in the artist's surroundings. *Ant*, in particular, is described to encourage readers to take part and "promote the idea that the pleasure of reading is not passive acceptance but active participation."<sup>5</sup> I take this as an invitation to actively and empathetically think and read with the insect traces in the book, leaning on the posthumanist reading of nonhuman agencies that Lummaa (2020) has introduced. The practice of describing my thinking and reading process with the traces is ultimately a very human-bound point of view, and the book as an object is aimed at human public. But what I aim for is encountering, crossing traces – my reading and the insects'. I am figuring out a text that does not ask to be figured out, does not offer any narrative, does not point to any given emotional reflections. I am trying to *think with* the insect traces (see Haraway 2016), the material object in my hands, and

---

cess but still a separate text. I read these texts side by side, one as the main text and the other offering me an insight into the process of making the book.

3 At the time of writing this article, the link to the video does not work, so I will not concentrate on it in this analysis. However, I still want to mention the video as one part of the multifaceted artwork.

4 I am reading the UK edition of the original Chinese work, but the translation does not affect the insect traces as it would affect narrative text. However, it is important to contextualize my interpretation of insects as so-called Western, and note the possibility of assumptions arising from cultural and geographical differences in comparison to the original work.

5 <https://www.zhuyingchun.com/books#/ant/>, accessed 24.1.2024.

problematize traditional nonhuman representations in literature. Reading bodily and agential insects guides my interpretations as a methodological choice, and seems to be something *The Language of Bugs* almost asks me to do. The “language” of the insects requires me to concentrate on the material work of writing and bodily reactions of seeing the insects as they have worked and written: moved, acted, and lived, in the exact moment of leaving a particular trace.

### **Reading insect traces beyond the human**

My reading of the insect traces is based on posthumanism, drawing on new materialism and material ecocriticism especially on nonhuman agency. Posthumanist reading tries to see beyond the human-centred alternative often offered. It questions the one-sided tradition of reading nonhumans only through human characters and makes the messy, intertwined relations and encounters of humans and nonhumans in literature and culture open for analysis, placing humans and nonhumans alike on lively networks of agencies. Posthumanist framework thus seeks to undo the hierarchical thought patterns that elevate humans above the rest of the world. As Lummaa (2010, 23–24) has stated, instead, it concentrates on the ways in which different human, nonhuman, animate or inanimate entities interact. Through dismantling the supremacy of humans and challenging speciesism and dualisms such as nature and culture or animal and human, it also has political and ethical aspirations (Lummaa & Rojola 2015, 14, 19–21). Posthumanism sees humans as one species among others, but this is not to underplay human responsibility or the effects of harmful human actions (see also Karkulehto et al. 2020, 2). Feminist posthumanism, specifically, recognizes the differences in positions and responsibilities, including within the human category as well (see Braidotti 2017; Koistinen & Karkulehto 2018; Koistinen & Karkulehto 2021; Lummaa 2010, 23–24).

I see posthumanist thinking as essential, since as long as humans see themselves as superior to and more important than other living beings, they lose much of their potential for understanding. It has been proposed that seeing human and nonhuman beings as entangled and ethically and emotionally connected could help to reimagine and reconfigure a more ethical, hopeful future (Koistinen & Karkulehto 2021). Posthumanist literary studies therefore emphasize the connections that textual worlds and beings have to real ones and offer an angle for my reading that bends beyond the human meanings and mirrorings in texts, in an attempt to turn towards the insect as a bodily, living, acting, and feeling creature.

I consider agency to arise in processes between interacting parts, as Karen

Barad (2007) has famously suggested. According to Barad, agency has traditionally been tied with subjectivity or intentionality, and thus been rendered a human quality (Barad 2007, 214; see also Iovino & Oppermann 2014; Lummaa & Rojola 2015). But if agency is perceived not as the essence of a being, but to come into being in intra-action, nonhuman agency inevitably occurs in human practices (Barad 2007, 214). In my reading of *The Language of Bugs*, agency and materiality are centrally linked (see also Iovino & Oppermann 2014). New materialistic approaches challenge the idea of humans as the defining, acting force on a passive environment (Bolt 2013, 1–3). When agency is seen as arising from the interaction of matter and the change resulting from it, it encompasses both human and nonhuman, animate and inanimate (see Bennett 2010; Haila & Lähde 2003; Lummaa 2010; Raipola 2015, 28).

However, as Lummaa (2010, 298, 317) has pointed out, the definition of non-human agency is never purely possible, as there are always areas of living that inevitably remain beyond human experience and imagination. Literature's conceptions of non-humans are often tied to language and narration. Lummaa (2010) has introduced non-linguistic or alinguistic agency as an attempt to extend agency to include nonlinguistic life. She notes that although nonlinguistic agency extends agency to more-than-human world, it places language as unnecessarily defining and creating a boundary between human and nonhuman nature (Lummaa 2010, 285–286). It is therefore essential to ask whether, when considering nonhuman agency, language should be placed as a defining factor any more than intentionality.

Barad (2008, 141) has written about human bodies as material-discursive, whereby she sees human and nonhuman bodies not as fundamentally different from each other, but as similarly shaped by the interactions of the world. Stacy Alaimo (2018) has taken a similar, material feminist perspective. In her view, seeing human beings as material, changing bodies and in intersecting webs of agency also emphasizes the human subject as part of a larger whole and pulls the human being off the pedestal into the material world (Alaimo 2018, 49), a dethroning which is often claimed to be needed for the future of the planet. Reading material bodies and movements not only connects the human being into wider networks of agential intra-actions, but also highlights the agency arising from the insect traces. Insect bodies become central to my analysis: their different kinds and multiplicities, ways and forms of acting.

For animal studies often primarily focused on bigger, more familiar animals, insects present a challenge, since they have been depicted as more other than many nonhuman beings. Insects have traditionally been seen in cultural studies as the very picture of otherness and strangeness (see Brown 2006; Harding 2014). This comes from the

appearance and bodies of insects, which differ radically from human features, such as hairiness, multiple legs and eyes or tentacles, as well as size (Menegaldo 2014, 183; Talairach-Vielmas & Bouchet 2014, 14). Harding (2014) has written about humans' complicated relationship with insects, which are so close to us, yet even invisible and sometimes disruptive, intrusive, or threatening (see also Hohti & MacLure 2022). According to Harding, otherness rises from both emotional and physical aspects:

We find it impossible to identify with them, unlike other species, since they do not seem to suffer or to express emotion. We have neither any experience or personal encounters nor any sense of close partnership, in part because of the disproportion in size and numbers and lifespan; we live on a different scale and in a different time frame. (Harding 2014, 224.)

While Harding's view seems accurate at first, I also challenge this idea of otherness and distance as part of my posthumanist reading. In fact, humans share a lot of our physical and social environments, even our bodies, with different nonhuman species, and the othering of insects is often related to so-called Western attitudes to issues such as class and cleanliness (see Hohti & MacLure 2022). Humanity also consists of nonhumanity (Haraway 2008). While I highlight the sharing and entanglements, my reading recognizes the differences between species. I approach literature as a shared platform, gently reading into sight different agencies that constitute *The Language of Bugs*.

Traditionally, nonhumans in literature have been read through metaphors or symbolic meanings and as narrative elements defining the human (Rojola 2015, 132, 146). Their representation has only been about human perceptions and narrative traditions related to nonhumans. In the process of representation, humans are placed in a position to construct the world around them, which creates a gap between them and other beings (Hongisto & Kurikka 2013, 8–9). According to Aholainen (2020, 192), representation places the thing it describes as an object and a human being as the definer, which makes the agency of the nonhuman represented impossible to assess. In a similar manner, it is hardly possible to unify all insects into a single poetic structure anymore (Hohti & MacLure 2022; vs. Hollingsworth 2001). Writing about insects as masses loses sight of species specificity and different ways of acting and experiencing, and the tendency to describe insects as groups rather than individual beings perhaps reveals blind spots in the tradition of insect representations. But as the knowledge of the nonhuman worlds around and within us deepens and worry about the loss of species increases, the ways insects are written in literature also change (Hollingsworth 2001, 182–183, 192; Talairach-Vielmas & Bouchet 2014, 14).



Since representation and metaphors only show humans our own reflection (Rojola 2015, 133), other approaches have been called for, ones that would recognize humans and nonhumans in literature as equally emerging from the same environments (Lummaa 2010, 175, 179). My reading of nonhuman agency is influenced also by material ecocriticism, which concentrates on how the material world is narrated and described in literature (Raipola 2015, 30). Like posthumanism, material ecocriticism dismantles the opposition between human and nonhuman beings, since it sees the world as a network of agencies influencing and being influenced by each other, not in dichotomies but as parts of a larger whole (Iovino & Oppermann 2014, 1–2, 5). According to Lummaa (2020, 48) material ecocriticism offers an angle where nonhuman beings could be seen as more active in art. Reading bodily, living, and feeling nonhuman beings challenges the tradition of literary studies and its human-centredness. It brings embodied material nonhumans more into focus (see also Lummaa 2010). The movement of the real-world insects seems to leak into textual worlds, making the insects concrete and animate, with agency, and to be experienced and encountered.<sup>6</sup>

*The Language of Bugs* seems to emphasize not only the materiality of the insects, but also writing. It offers literature almost as a playground for insect agency. Snaza (2019, 4) has presented literature and literacy as primarily animate: “some animals make marks that circulate in various media with affective agency, and that are in turn attended by other animals.” Snaza states that as we cannot read without the presence and help of nonhuman beings – like the plant fibres and colours that make up the book – we should not treat literacy as a solely human practice, but could see it as an encounter of humans and nonhumans (Snaza 2019, 5, 29; see also Karkulehto & Schuurman 2021, 123). Snaza concludes that literacy is a “contact zone” for diverse human and nonhuman beings:

The human, to use Karen Barad’s (2007) term, is something “intra-active,” emergent: it does not exist in or apart from an environment that animates it, and it “becomes with” a host of others, as Haraway would say. Indeed, we will have to see human language as becoming with a range of other languages, ones that are not human. (Snaza 2019, 60.)

Following Snaza, literature and writing could be defined as marks left by humans and nonhumans alike, which seems to resonate with *The Language of Bugs*. The traces on the

---

6 The movements and sensory perceptions of insects have also inspired theories which do concentrate on more symbolic representation (e.g. Hollingsworth 2001). But a theory based on visuality or the affective swarming imagery inevitably contains echoes of material insects in the real world.

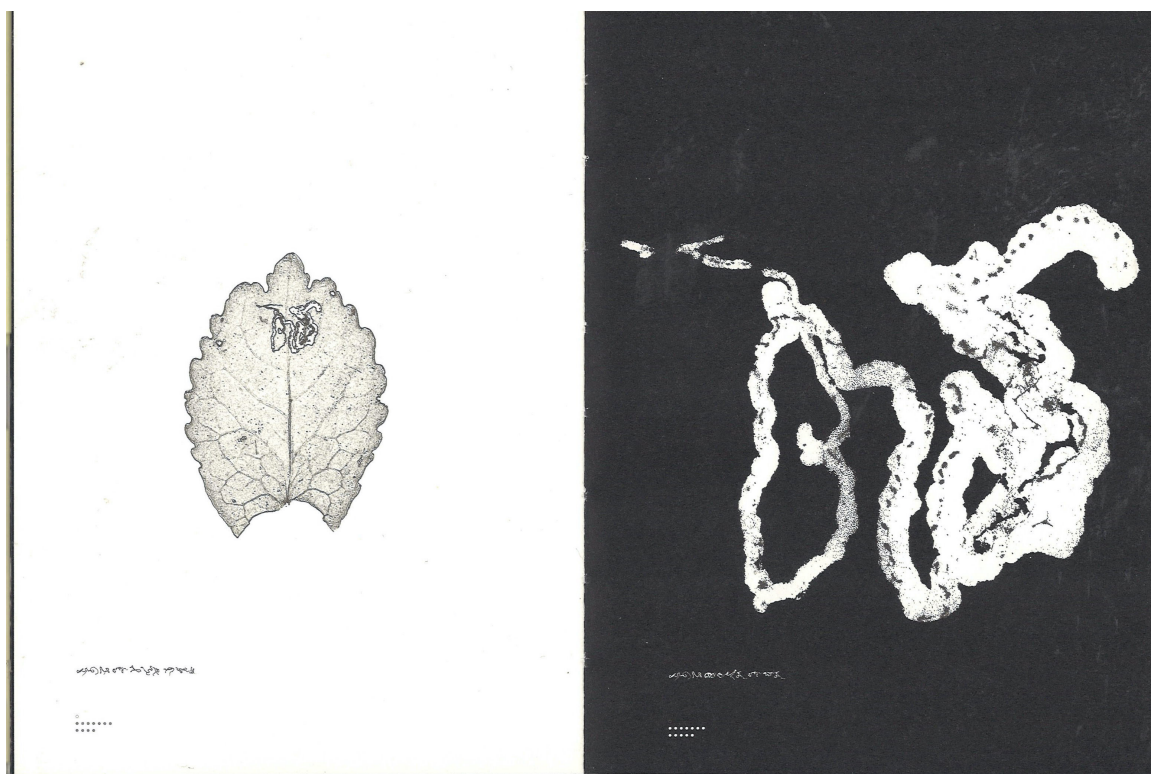


pages could also be approached as experimental poetry or asemic writing (see Pyyhtinen 2022, 347). As Ala-Hakula (2021, 387, 402) has stated, asemic writing is material in a way that makes written text almost metaphorical, and thus extends our views on writing and language. The question of the relationship between the linguistic and pictorial does constantly emerge from *The Language of Bugs*, and playing with visuality and enlarging the meanings of text and writing is, indeed, a staple of poetry. Although discussion on asemic writing and experimental literature influence my analysis, I have chosen to concentrate on reading and thinking with the material insects' movements on the pages, and the political and ethical questions arising from the entanglement of nonhuman and human agencies in *The Language of Bugs*. In the following sections, I first address especially non-human languages and writing, then move on to further analyse the multispecies agential webs in the book. My reading is part of a larger need to widen the human perspective to include, more empathetically and ethically, nonhuman and more-than-human worlds.

### **“This book is not written by humans”: on nonhuman languages**

A heavy small book full of intricate swirls and curls; this is what I see first in *The Language of Bugs*. Among the many traces of insect bodies, the book presents images of insects that can be described as more traditional representations: photographs of insects, placed near the traces they have (presumably) left behind. But there are significantly fewer of these than of the different-sized intricate traces. The book is largely in black and white, including the cover. The second half of the book, through images of leaves and insects, introduces more brown and copper tones and muted colours. The insect traces, presented as insect “language,” have been placed on the pages to imitate the conventions of a book as an object, in a manner that makes them appear either as pictures or text depending on their placement and size (as in images 1 and 2). Sometimes there is only one large trace on the page, as on the right of image 1, a short line of traces as if explaining the image, and tiny curls at the bottom corner of the page like page numbers or footnotes. The traces may be black on white or white on black. When enlarged, the traces are uneven and rough, indeed every single one different. The making process of these traces is explained in the booklet with species-specific traits and body movements:

Each bug's painting method is different; their tools are different, too. The caterpillar relies on its belly to draw, but some parts were created by the steps of its six feet and the beating of its wings. The pine caterpillar uses its body hair. The textures are different. The traces left by it walking on paper are also very different. (*The Birth*, 8–9.)



**Image 1.** Permission to use the scanned images of the book here and below received from the author Zhu Yingchun and the publisher. Published by ACC Art Books. Previously published by Guangxi Normal University Press, China.

It is interesting to note that writing done by humans and insects differs bodily (see also Pyyhtinen 2022, 349). While humans usually use a tool with their hand, insects make traces with their whole bodies or specific body parts. In the booklet presenting the work, human art and insect art, as well as insect body parts and an artist's brushes, are compared in a very anthropomorphized manner. By stating that the caterpillar is "drawing," the booklet also presents trace-leaving as something the insect has intended to do in an artistic way. Here, it is important to note that I am reading from a position outside the Chinese context; for instance, Chinese calligraphy combines both writing and drawing, so differentiating between these might not be so crucial for my reading. In the book, the traces of insects and humans are juxtaposed and their similarity is sought from the perspective of art history: the traces left by a spider dragging its prey are compared to the works of the expressionist Jackson Pollock (*The Birth*, 16–17). However, humans rolling around in paint and then on large pieces of paper is usually not called writing, although, in other contexts, we do talk about "body language" for humans.

Naming insect traces language and making them into a book raises questions of anthropocentrism.<sup>7</sup> *The Language of Bugs* has previously been analysed by Olli Pyyhtinen (2022) with emphasis on hospitality studies. He has approached both writing and hospitality in the book in a non-anthropocentric manner, stating that the multispecies relations in the making of the book question the anthropocentrism of hospitality (Pyyhtinen 2022, 343). Pyyhtinen's analysis makes the human behind and in the text visible, which is crucial: at its core, the practice of making a book "written by insects" is inevitably anthropomorphic. Anthropomorphism has been criticized for filling non-human creatures with human meanings and making them lose their own agency (see e.g. Donovan 2016, 47). Harding (2014, 221–222) has also written that anthropomorphizing insects makes us see false connections between them and us, which ultimately makes humans even more detached from the environment. Similar anthropomorphism, as well as striking gendering, rises from the booklet when it describes insects as human-like, their traces being "the footprints of the bug gentlemen and ladies, their language" (*The Birth*, 8). However, anthropomorphism has been praised, to some extent, for breaking down boundaries constructed between nonhuman and human beings, and for awaking human empathy and genuine interest towards nonhumans (Bennett 2010; Galleymore 2020, 90). This is acknowledged by Pyyhtinen (2022, 346–347), who states that anthropomorphism is the only thing that initiates the process of the book; the artistic value that is given to the insect traces.

The use of photographs of insects and their traces link the book directly to the material world, often showing the leaves on which the insects have acted. Pictures of these leaves are indeed a frequent feature in the book, the fundamentals of what is called insect "language" in nature. The traces on a leaf as well as a page next to it are the same (see images 1 and 2), but on the leaf – even though a photograph as such fades between representation and the material – the traces are present in the material world, without human arrangement, only photographed by a human. On the next page, a human has collected and arranged these traces. Yet the juxtaposition of the two pages evokes the idea that the book is material in the same way the leaf is; a platform on which insects can move, their bodies can exist, and their movement can be identified as agency.

---

7 On the artist's webpage (<https://www.zhuyingchun.com/books>, accessed 24.1.2024) the book is titled "Bugs' book," making the notable use of the word "language" in the title a significant part of the UK edition only. However, in the booklet, the traces are also called language (*The Birth*, 8).

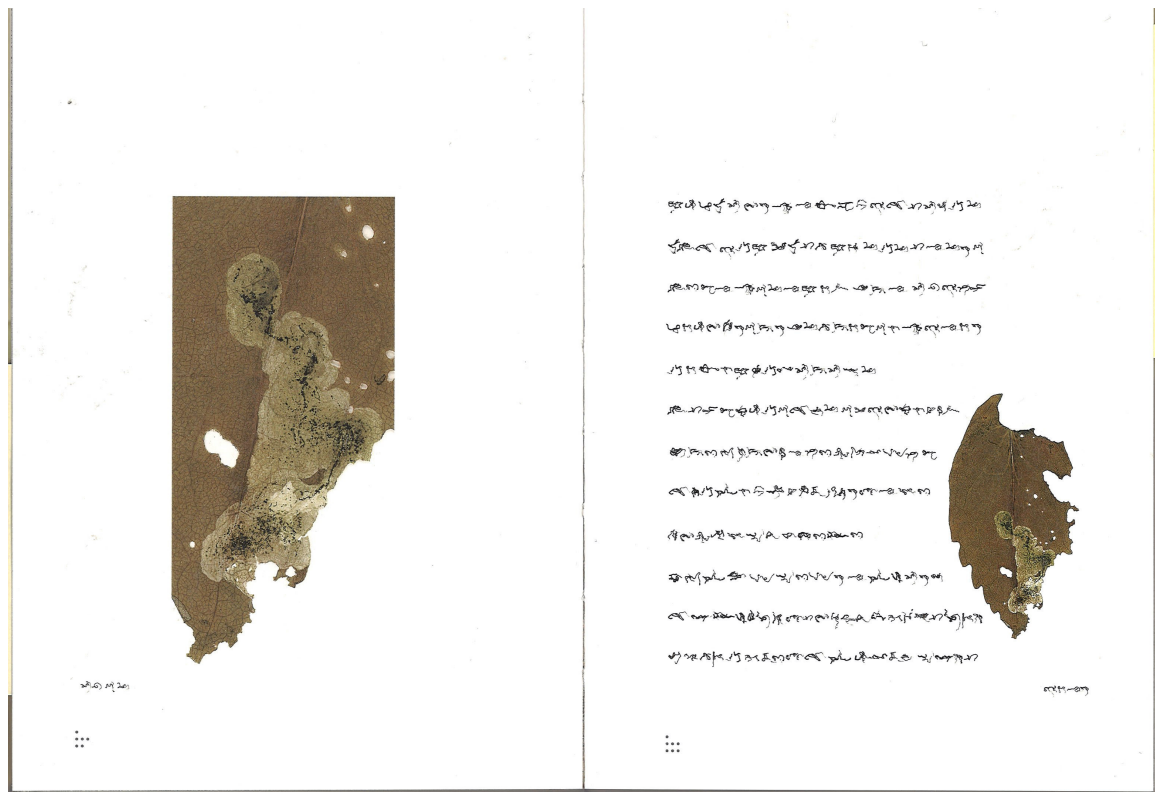


Image 2

Art has been defined as a fundamental part of being a human (Dissanayake 1992). According to new materialisms, art could also be seen as fundamentally materialistic (Bolt 2013, 5). Snaza (2019, 94–95) presents a definition of literacy that would encompass nonhuman traces: “some animals take up various materials [...] in order to make marks.” Snaza asks, “could we not think the spider weaving its web or the bird weaving its nest [...] as kinds of writing, ones that are always already caught up in multispecies assemblages?” Vermeulen (2020, 102), too, has viewed human and nonhuman traces as ultimately alike, both as writing: just like humans leave geological traces, nonhuman agencies generate traces that could be defined as writing. Pyyhtinen (2022, 355) also writes that through considering insect writing, we could “challenge human exceptionalism: what if human writing was only one – and not even the primary – case in the wide variety of writing practices to be found in the world? After all, life generates lines and leaves traces and marks wherever it unfolds.”

But can I name the traces done by insects writing or language without falling into an anthropomorphizing trap? Should they be named inscription instead? Pyyhtinen (2022, 347) also argues that claiming to read the insect traces as language erases the otherness that inherently is part of the insects, their species-related features, and

reduces them to something anthropomorphized. Any meaning given to these traces is inherently a human meaning. It seems harder to name the traces language than it is to name them writing produced by bodily movement (see Pyyhtinen 2022, 349), thus agency. Making traces on surfaces is something humans share with nonhuman beings, as the pages in image 2 seem to emphasize, but defining insect traces under the category of the human meaning of language or writing overlooks the fact that nonhuman beings do have social and communicational behaviour that radically differs from human linguistic tendencies; languages that we humans do not even know how to approach within our scope of experience.

The question of power is tightly connected to defining language, both within the human category and in relation to other species. Traditionally humanists have justified the idea of human difference and superiority over other animals precisely with the concept of language and its complex, rational or abstract nature compared to nonhuman communication (Meijer 2019, 42; Peltola 2021; Simons 2002, 86). However, as Peltola (2021, 407) has pointed out, animal communication can contain symbolism, which has been counted as a feature of human language only. Nonhumans may not have a language in its human meaning, but it cannot be denied they do express something language-like that can be complex. For instance, social communication between bees consists of movements of their body, sounds, pheromonal messages and even electric fields (Meijer 2019, 202). Insect and human communications differ heavily, but they still happen in multispecies entanglements and interactions that humans have been neglecting. Human impact such as rising temperatures and emissions, for instance, have been found to have a harmful effect on insect pheromonal communication (Boullis et al. 2016; Knaden et al. 2022, 8). According to Meijer (2019, 38) we cannot analyse non-human languages without first letting go of the idea of language being solely human. She has called for the reconfiguration of the concept of language, together with non-human beings, that would emphasize the fact that other animals communicate both within their own species and in multispecies relations (Meijer 2019, 5).

Aloi (2009) has also criticized animal studies for the emphasis on the sense of sight, which does easily get overly emphasized in the discussion on nonhuman traces and writing; what *The Language of Bugs* presents as insect language leans heavily on sight and the traditional human idea of reading. Thinking about communication or interaction might make a discussion of the insect traces more multifaceted. Atkinson (2022, 144) has offered the human ability for communication to be stressed over the capacity for language, since this could enable humans to react to the many nonhuman voices they are surrounded with, instead of denying nonhumans any linguistic skills.

Guesse (2020, 31–32) has written about a post-anthropocentric viewpoint, wavering close to posthumanist theories, as a way to acknowledge nonhuman influences in literature. Guesse (2020, 32) interestingly states that “[t]hese [nonhuman] messages may simply not be formulated in a language humans can understand – let alone print in a book.” Yet this is exactly what *The Language of Bugs* claims to be trying to do.

The starting point of what *The Language of Bugs* names nonhuman language were traces of insects moving and feasting on plant leaves. Plants have been found to chemically react to vibrations caused by insects chewing on them (Appel & Cocroft 2014). Thus, what Zhu Yingchun has collected could be defined as a nonhuman communicational code, language that humans have not understood but that nonetheless causes reactions. Making the traces has been insect–plant interaction, language without the human. But the words language or writing may still not be the most suitable to encompass more-than-human marking processes. Arranged into a book the text is traces of insect agency, a series of swirls and squiggles of different sizes and forms. Reading the book feels about the same as reading a text in a language you do not know. The traces evoke appreciation, questions, curiosity, but also questions as to whether humans can even pretend to be able to reach the language of insects. The few human words on the English title of the book seem to create a prison, a claim to name something beyond our definitions with human concepts, even when they do not seem to bend far enough to reach the nonhuman.

Eventually, *The Language of Bugs* articulates one very basic question: can literature or writing be claimed to be only a human phenomenon? It could be asked if *The Language of Bugs* even counts as literature. I find, however, that it performs a book and an image of literature. It joins the tradition of artists’ books playing with language and invented writing (see Drucker 2004, e.g. 227), commenting on book design and genres. Sometimes it even mimics a nature guidebook, on pages which present insect traces as “explanatory texts” to small images of insects and leaves. From a material point of view, reading the book highlights not only the agency of the insects, but also the material construction of the book itself. In my reading, the traces shape into text in intra-action between the insects, the human artist, and the social and material conventions of literature. Inevitably, I see the constructability and artificiality of books as I turn the pages of the work. Literature is suddenly materials and conventions and not just an intellectual, emotional, or linguistic art – or rather, all of these at the same time.



## Traces of entanglements

*The Language of Bugs* is a product of multispecies relations and webs of human and non-human agencies. The book came to be in a materialistic intra-action involving not only the human artist and insects with their bodily movements and agency, but also the dyes, the garden (see also Pyyhtinen 2022, 353), as well as the social and material conventions of literature. It must be acknowledged that despite its declarations the book is assembled with human meanings, the human taking the creative role in the work. In a way, Zhu Yingchun's role in making the book was seemingly innocent; yet, his organizing has given the movement of the insects a human-made frame (about Zhu Yingchun as the "facilitator" see also Pyyhtinen 2022, 346). While I would not have a book to hold and look at without insect agency, the work of intentional choosing and arranging the traces was made by a human artist (see also Pyyhtinen 2022, 353), and Zhu Yingchun also impacted some of the insects' movements, for instance by sprinkling water on a cicada that moved on his paper (*The Birth*, 7). A human has taken the traces of insect activity as building blocks and turned them into a book, an object the meaning of which the human defines. However, the material presence of the nonhumans in the traces that constitute the book has to be noted. Being a book of insect traces, *The Language of Bugs* inevitably highlights nonhuman agency that differs from the human. While I am caught up in my human perspective, my world of experience is not unrelated to the insects', and through reading the traces I can try to see the insects without the fog of symbolic representation. As an interesting paradox, the book's meaning-making both erases the boundary between human and nonhuman art and highlights the human way of explaining nonhuman nature.

The multispecies relations that started the making of *The Language of Bugs* happened in a garden, which is always a blend of human and nonhuman agencies, a place of human arrangement and nonhuman living. For Pyyhtinen (2022, 350–351), the starting point of *The Language of Bugs* was hospitality, which he defines as welcoming the other to a space, in this case a garden, from which Pyyhtinen points out humans usually want to drive insects away. While this is true with some insects, all insects are not seen as equally harmful for human arranged environments. Although Pyyhtinen (2022, 352) states that to make the book the artist and the insects had to work together in intra-action that recognized both their agencies, underlying his article is a setting where the human is the host and the insects are guests, visiting a garden due to human hospitality. But, I find it hard to imagine a garden without insects. Pyyhtinen (2022, 352) writes: "The bugs accepted the invitation and the roles suggested to them by arriving, by chewing on leaves." He does move on to note that all the small animals did not come to the garden



only after the artist welcomed them but were there before they were given the role of visitors. Pyyhtinen thus claims, that what enabled the intra-action between the artist, the insects, and the garden was the absence of human eviction: the artist “let” the insects stay in the garden. But who was in the garden first? My posthumanist reading challenges the idea of the human as the defining, allowing power. The garden is full of life; humans are only one part of its ecosystem, and many times the most harmful one.

The book presents contrasting pages and ways of arranging insect traces. On one page, small pictures of different species of insects have been arranged in neat lines, each of them with their own tiny trace, which highlights the human organizing and construction process. A few pages (image 3) consist of multiple small pictures of an insect moving and leaving traces, arranged in an order as if to show the book-making process. Here, I am able to follow the insect’s movement in a fragmented, still way, and to guess which body part leaves what trace. These images seem to stop the movement of the insect and place it for the human gaze. They strongly underline the process of the book’s creation and thus its materiality: insects’ bodies have moved on paper. This is particularly clear on one of the last pages of the book, which presents a picture of a notepad lying on the ground and an insect walking across it. In the end, these pages are all just ways of expressing this same material process of becoming.

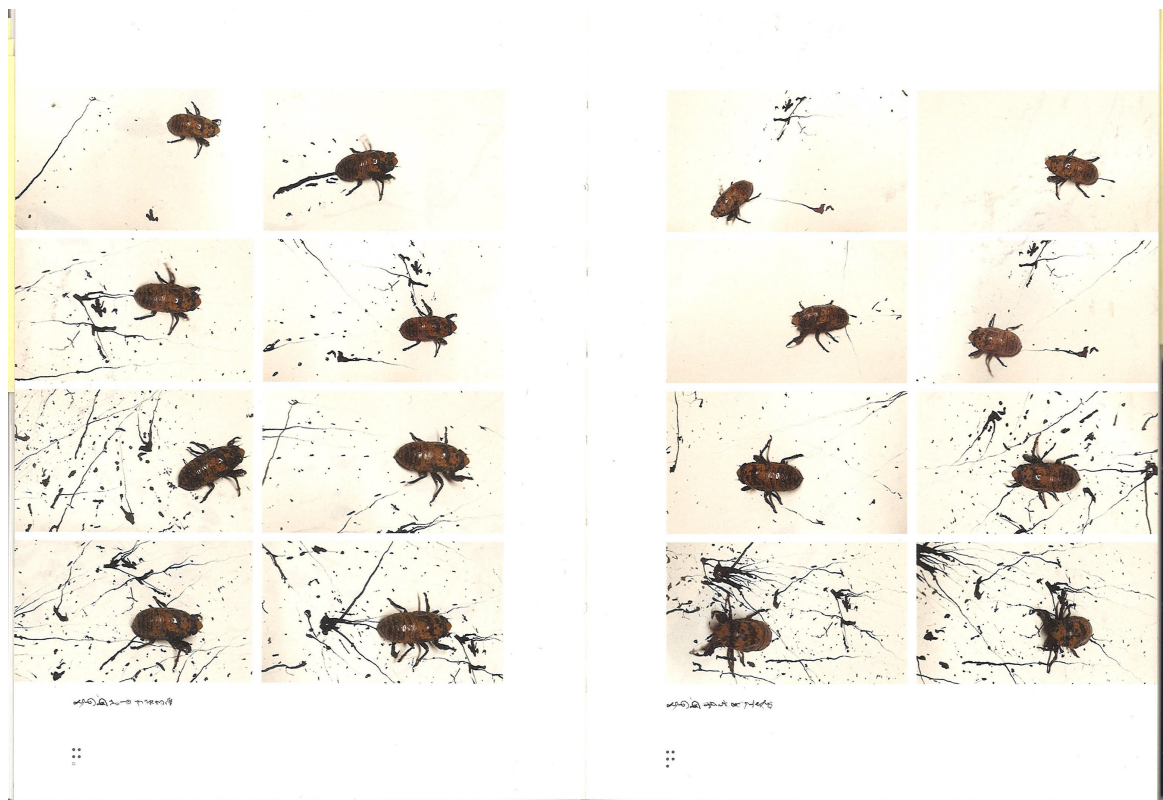


Image 3

*The Language of Bugs* would not exist without the insects' labour: there would be no traces to arrange on pages at all if the material insects had not moved to make them. Thus, it cannot be analysed without identifying their agency. Insect agency is emphasized on the pages that have insect marks all over, even leading out of the pages (see image 4). These traces escape and in a way challenge even the material boundaries of the book, showing the impossibility to fully capture insects and their movements. Moreover, the traces leading outside the book point to its connections to the real world, where insects move free from the human gaze. The pages on which there is nothing more than black and white traces, moving in all directions, seem to sum up the underlying poetics of *The Language of Bugs*. These traces are a mere image of insect activity. When arranged according to the human idea of a text, the movement of the traces has been forced into an idea of language; but on these pages, it is wilder and harder to capture. The language of the insects seems to be their bodily movements and agency: material bodies in the same material reality. I can try to read and interpret a text, but the insect has dictated the traces of its activity and left the scene without being observed by a human eye.

When a more traditional representation, an image of the insect, is placed next to its traces (e.g. image 3 and 4), the representation and the agency of the material nonhuman mirror each other, creating an experience of the bodily insects together. Aholainen (2020) has written about material nonhumans and the texts and images representing them as taking shape in intra-action, whereby something of the agency of the material nonhuman animals is reached when reading the text. Similarly, the text in *The Language of Bugs* takes shape through both the traces and the photographs, in dialogue. It is therefore meaningful to approach the traces and photographs in the book as if through each other, and as parts of a wider material reality, in intra-action (see Aholainen 2020, 184). The book tries to mimic the existence and behaviour of real-world insects, highlighting their agency somewhere between questions of representation and materiality. In my reading process, visibility and concreteness are linked through the bodies of the insects and me as a reader. The perception of swarming and fast-moving insects that emerges from the imagery evokes an experience in which the traces left by insects on paper are felt by my reading human body, which emphasizes the agency of the insects. In recognizing my reaction to their traces, I acknowledge that I am part of the same material reality as the insects that left them, and thus we are in a bodily encounter with each other that is generated not only by my agency, but also by the agency of other species. The encounter between me and the traces is bodily, affective, material; especially because I find the traces so hard to grasp.

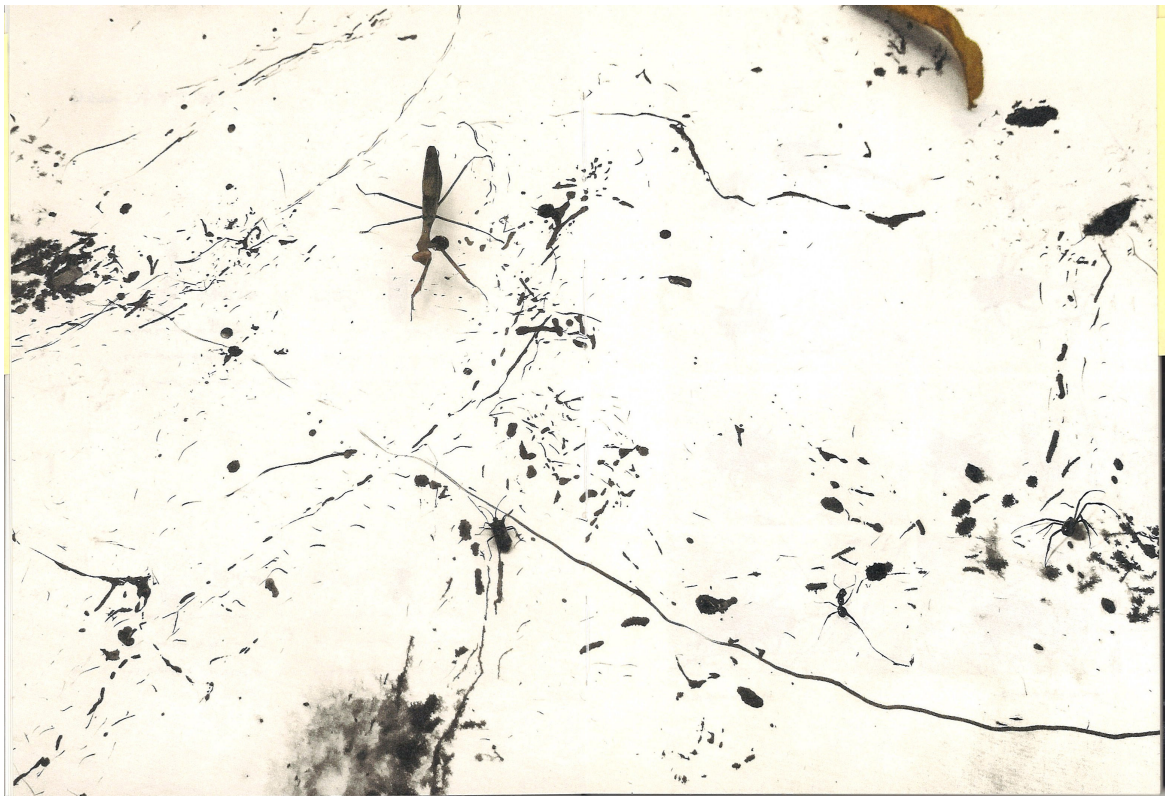


Image 4

The messy webs of human and nonhuman movements the book originates from cannot be analysed without asking questions of violence, exploitation, appropriation and forcing. All of these intertwine with a human artist placing papers and dyes in a garden, collecting traces, dropping water on the insects and other methods that caused the insect traces to be what they are. While I may see insect agency in their movements, I cannot claim that the insects' intention was to create a book. Organizing, editing, and formatting the traces is full of human intention. Moreover, it is worth asking if insects were used as ingredients in the book's ink, glue, or binding. Pyyhtinen (2022) states that the book does not offer enough material to assess whether or not the process involved violence. But the very act of making a book is a process that could be analysed from the point of view of human power and control over nonhumans. Writing a book is always, and especially when writing "with" nonhumans, also an act of politics and power, and could be done in many ways.

Although the insects were not captured or killed but moving as they do (though on different surfaces and covered in dye), their movements were influenced by human intentions. *The Language of Bugs* could be said to have been produced with the insects. But, as always with art made with nonhumans and claiming to present their experience,

the conflict between exploitation and the will to genuinely see nonhumans remains, especially when the artwork is gaining positive impact for the human artist without nonhumans being able to give their consent (Atkinson 2022, 2–3, 65). It is particularly important to talk about violence and exploitation related to insects and other small animals that easily get forgotten, since conversations about animal suffering typically concentrate on animals that humans themselves feel closer to (see Meijer 2019, 154). Nevertheless, especially in the case of insects, their power over humans should not be overlooked; as *The Language of Bugs* shows, insects still resist human control and categorizations, acting and showing up in places humans have tried to drive them away from.

What enables a reading of *The Language of Bugs* that recognizes nonhuman agency behind the book is that the human intention of making the book is rooted in curiosity and willingness to engage with the insects. This intention matters. Atkinson (2022, 4, 16–17), writing about art made in collaboration with nonhuman beings, has stressed the importance of these artworks in challenging anthropocentrism and perceptions of otherness, and creating a change in relationships with nonhuman beings. It has been discussed if language or literature can truly encompass the nonhuman experience (see Karkulehto et al. 2020), and writing about nonhumans as metaphors for human experiences has even been seen as a violent practice (Donovan 2016). *The Language of Bugs* does not narrate from the viewpoint of the insects. In a way, the book is like an attempt to move beyond the question of language and narrating. It takes the insects' movements, puts them in a human-made and human-defined object, but at the same time offers a genuine interest in showing something beside the human view: insects without human words. The book is a messy object that questions the nature/culture division and makes visible the webs of human and nonhuman agencies.

Read in a posthumanist framework, *The Language of Bugs* raises the question of how far humans can reach beyond their own perspective. Posthumanism aims to broaden our worldview to better account for the nonhuman world. At the same time, posthumanist analysis cannot ultimately claim to be detached from the human perspective: it is analysis within the human mind and body, with human language and concepts. A book consisting of insect traces offers an alternative to traditional literary representation of insects, and tries to break free from the possible violence of representation. *The Language of Bugs* seems to make apparent the human tendency to build coherent, albeit one-sided, representations of the more-than-human world, in showing the impossibility to do just this. My reading turns toward myself as a human reader, making visible and thus open for analysis the human meaning-making processes that inevitably



occur when humans attempt to translate nonhuman worlds into our languages (see also Atkinson 2022, 175).

The question of nonhuman writing and language could also be seen as an invitation to play, to imagine and speculate; to make literature, not just text. What if the book is not really claiming to have decoded the communication of the insects running through its pages, but asks the reader to play along, to imagine, to see the traces left by their actions? *The Language of Bugs* seems to ask if showing insects in literature without human representational processes is even possible. It challenges the idea of representation that shows only human agency and perspective. The fleeting, moving traces left by insects on paper are an actual left-behind inscription of the insects' materiality and agency. There is no built-in meaning for humans to interpret, although humans may see the traces as having connections to visual art or poetry. Ultimately, however, it is impossible to tell from the marks what they signify other than insect activity. But the traces resonate with a human reader, and when *The Language of Bugs* is read with nonhuman agency in mind, it may be possible to imagine insects in new ways.

## Conclusion

In this article, I have attempted to read *The Language of Bugs* by Zhu Yingchun through entangled human and nonhuman agencies. I have linked my analysis to the theoretical discussions on representing nonhumans in literature, nonhuman language and writing, as well as questions of violence in multispecies art. Through posthumanist reading, which aims to dismantle the hierarchical power relations between humans and nonhumans, I have considered the paradoxical dialogue of human arrangement and free nonhuman agency the book expresses. I asked whether *The Language of Bugs* could be considered as opening literature up for the agency of insect species. Reading it has, in fact, required a broader view of human and nonhuman marking and writing processes.

Ways of thinking, writing, and reading nonhumans in literature are changing due to current climate crisis, extinction wave and loss of nature (see Hyttinen & Lummaa 2020, 11, 15). *The Language of Bugs* encourages to consider the material bodies of insects, since the traces left on its pages would not exist without real-world insects. In reading the embodied material insects that emerge from the book, my analysis is part of broader research that recognizes nonhuman agency in texts. In *The Language of Bugs*, I see the movement that caused the traces intrinsically as nonhuman agency. Although the book often points to human means of representation and ways of meaning-making, insect agency is a necessity and a starting point for it. Insects act on and affect

the book on many different levels, through movement and affectivity, corporeality and materiality, through agency. Alongside insect agency I have also discussed human intention, which, although rooted in a genuine interest to more equal encounters with insects, emphasizes human naming and defining tendencies, especially in how the book names insect agency as “language.”

Like Lummaa (2020, 42) has stated, “The recognition of nonhuman literary or poetic agency calls for a re-evaluation of reading as well.” Through posthumanist, gentle reading of the interwoven human and nonhuman agencies in *The Language of Bugs*, I have come to see the book as a shared platform of movements challenging the dualism of nature and culture through which literature is often defined. Looking at insects in *The Language of Bugs* has required following and tracing them, and even feeling their absence in the pages of the work. Through thinking with the insect traces and reading nonhuman agency, I have ended up looking at the human being as well, entangled with varied nonhuman materialities. The possibility of crossing paths in more equal positions in literature does not require us to claim there is no difference or otherness between humans and nonhumans. Rather, the aim is encounters on more equal terms through seeing our otherness and its value. Recognizing the agency of the insects in the book is also an acknowledgement of their freedom and autonomy. When I look at a trace that an insect once left behind, it has already moved on.

The traces on the pages seem to comment on the wider discussion on whose voice, language, and reality literature expresses. To narrate a specific being or experience always entails power. *The Language of Bugs* offers an alternative to traditional insect representations, trying to break free from the dismissive, anthropocentric ways of telling nonhumans. It shows insects in literature without a single human word, but through their own movements, and enables new literary imaginaries of nonhumans that orient towards nonhuman experiences. At the same time, it is still heavy with human meanings that are made visible and thus open for conscious analysis. And analysing our human meaning-making processes with more-than-human agencies in mind is crucial in our current times of ecological crises, to better account for the needs of multispecies communities.

An attempt to read insects in a book without human presence or as completely detached from human experience would ultimately be an illusion; but a rather beautiful one, and not without an effect. When the traces and images in *The Language of Bugs* are read as a text generated in intra-action by entangled human and nonhuman agencies, something from the material bodies and movements of real-life insects is captured in the book. The invitation to imagine more-than-humanity, to try and play with

reading nonhuman languages and movements, offers an alternative to the traditional, anthropocentric, and symbolic representations of insect species we are more used to encounter in literature. The question is how this kind of thinking with nonhuman traces can affect literature and writing, and what kind of platform it can offer for reconfigurations of insect encounters. I argue that this moves us to a different angle, from a defining to a curious and imaginative position, both on the pages of the books we read and in the world we share with nonhuman creatures.

## References

- Aholainen, Katri. 2020. "Diffraaktiivinen luenta Yrjö Kokon *Laulujoutsenesta* ja valokuvan ei-inhimillisyydestä." In *Sotkuiset maailmat: Posthumanistinen kirjallisuudentutkimus*, edited by Elsi Hyttinen and Karoliina Lummaa, 179–206. Jyväskylän yliopisto: Nykykulttuurin tutkimuskeskuksen julkaisuja 129.
- Ala-Hakula, Riikka. 2021. "Aseeminen kirjoitus kirjallisuuden avantgardistisena koettelijana." In *Avantgarde Suomessa*, edited by Iirmeli Hautamäki, Laura Piippo, and Helena Sederholm, 383–405. Suomalaisen Kirjallisuuden Seura. Tietolipas, 267. DOI: 10.21435/tl.267.
- Alaimo, Stacy. 2018. "Material Feminism in the Anthropocene." In *A Feminist Companion to the Posthumanities*, edited by Cecilia Åsberg and Rosi Braidotti, 45–54. Cham, Switzerland: Springer.
- Aloi, Giovanni. 2009. "Editorial." *Antennae: The Journal of Nature in Visual Culture*, 11, 3. ISSN 1756-9575.
- Appel, H. M., and R. B. Cocroft. 2014. "Plants respond to leaf vibrations caused by insect herbivore chewing." *Oecologia* 175(4): 1257-1266. DOI: 10.1007/s00442-014-2995-6.
- Atkinson, Elizabeth Eleanor Jacqueline. 2022. *Animals and Artists: An Exploration of Impossible Encounters*. Bristol, UK: Intellect.
- Barad, Karen. 2007. *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning*. Durham: Duke University Press.
- Barad, Karen. 2008. "Posthumanist Performativity: Toward an Understanding of How Matter Comes to Matter." In *Material Feminisms*, edited by Stacy Alaimo and Susan Hekman, 120–154. Bloomington: Indiana University Press.
- Bennett, Jane. 2010. *Vibrant Matter: A Political Ecology of Things*. Durham (N.C.): Duke University Press.
- Bolt, Barbara. 2013. "Introduction. Toward a 'New Materialism' Through the Arts." In *Carnal knowledge: Towards a 'New Materialism' Through the Arts*, edited by Estelle Barrett and Barbara Bolt, 1–13. London: I.B. Tauris.



- Boullis, Antoine, Claire Detrain, Frédéric Francis, and Francois J. Verheggen. 2016. "Will Climate Change Affect Insect Pheromonal Communication?" *Current Opinion in Insect Science*, 17, 87-91. DOI: 10.1016/j.cois.2016.08.006.
- Braidotti, Rosi. 2017. "Four Theses on Posthuman Feminism." In *Anthropocene Feminism*, edited by Richard A. Grusin, 21–48. Minneapolis: University of Minnesota Press.
- Brown, Eric C. 2006. "Introduction: Reading the Insect." In *Insect Poetics*, edited by Eric C. Brown, ix–xxiii. Minneapolis: University of Minnesota Press.
- Dissanayake, Ellen. 1992. *Homo Aestheticus: Where Art Comes From and Why*. New York: Free Press.
- Donovan, Josephine. 2016. *The Aesthetics of Care. On the Literary Treatment of Animals*. New York: Bloomsbury.
- Drucker, Johanna. 2004. *The Century of Artists' Books*. New York: Granary Books.
- Galleymore, Isabel. 2020. *Teaching Environmental Writing: Ecocritical Pedagogy and Poetics*. London: Bloomsbury Academic.
- Guesse, Carole. 2020. "On the Possibility of a Posthuman/ist Literature(s)." In *Reconfiguring Human, Nonhuman and Posthuman in Literature and Culture*, edited by Sanna Karkulehto, Aino-Kaisa Koistinen and Essi Varis, 23–40. New York: Routledge.
- Haila, Yrjö and Ville Lähde. 2003. "Luonnon poliittisuus: Mikä on uutta?" In *Luonnon politiikka*, edited by Yrjö Haila and Ville Lähde, 7–36. Tampere: Vastapaino.
- Haraway, Donna Jeanne. 2008. *When Species Meet*. Minneapolis: University of Minnesota Press.
- Haraway, Donna Jeanne. 2016. *Staying with the Trouble: Making Kin in the Chthulucene*. Durham: Duke University Press.
- Harding, Wendy. 2014. "Insects and Texts. Worlds Apart?" In *Insects in Literature and the Arts*, edited by Laurence Talairach-Vielmas and Marie Bouchet, 219–234. Brussels, Belgium: P.I.E. Peter Lang S.A.
- Hohti, Riikka and Maggie MacLure. 2022. "Insect-Thinking as Resistance to Education's Human Exceptionalism: Relationality and Cuts in More-Than-Human Childhoods." *Qualitative Inquiry* 28(3–4): 322–32. DOI: 10.1177/10778004211059237.
- Hollingsworth, Christopher. 2001. *Poetics of the Hive: The Insect Metaphor in Literature*. Iowa City: University of Iowa Press.
- Hongisto, Ilona and Kaisa Kurikka. 2013. "Esipuhe: Muuri ja murros." In *Toisin sanoin: Taiteentutkimusta representaation jälkeä*, edited by Ilona Hongisto and Kaisa Kurikka, 7–17. Turku: Eetos.

- Hyttinen, Elsi and Karoliina Lummaa. 2020. "Lukeminen humanismin murroksessa." In *Sotkuiset maailmat: Posthumanistinen kirjallisuudentutkimus*, edited by Elsi Hyttinen and Karoliina Lummaa, 9–36. Jyväskylän yliopisto: Nykykulttuurin tutkimuskeskuksen julkaisuja 129.
- Iovino, Serenella and Serpil Oppermann. 2014. "Introduction: Stories come to matter." In *Material Ecocriticism*, edited by Serenella Iovino and Serpil Oppermann, 1–17. Bloomington, IN: Indiana University Press.
- Karkulehto, Sanna, Aino-Kaisa Koistinen, Karoliina Lummaa and Essi Varis. 2020. "Reconfiguring Human, Nonhuman and Posthuman: Striving for More Ethical Co-habitation." In *Reconfiguring Human, Nonhuman and Posthuman in Literature and Culture*, edited by Sanna Karkulehto, Aino-Kaisa Koistinen and Essi Varis, 1–19. New York: Routledge.
- Karkulehto, Sanna and Nora Schuurman. 2021. "Learning to Read Equine Agency: Sense and Sensitivity at the Intersection of Scientific, Tacit and Situated Knowledges." *Animal Studies Journal*, 10(2), 111–139.
- Knaden, Markus, Peter Anderson, Martin N. Andersson, Sharon R. Hill, Silke Sachse, Mats Sandgren, Marcus C. Stensmyr, Christer Löfstedt, Rickard Ignell, and Bill S. Hansson. 2022. "Human Impacts on Insect Chemical Communication in the Anthropocene." *Frontiers in Ecology and Evolution*, 10, 1–15. DOI: 10.3389/fevo.2022.791345
- Koistinen, Aino-Kaisa and Sanna Karkulehto. 2018. "Posthuman(ist) Feminism, Feminist Posthumanities." *Critical Posthumanism: Genealogy of the Posthuman*, 24.8.2018. <http://criticalposthumanism.net/genealogy/feminism/>
- Koistinen, Aino-Kaisa and Sanna Karkulehto. 2021. "Kohti planetaarista tuntua: feministis- posthumanistinen uudelleenkuvaus ja etiikka ihmisen jälkeen." *Niin & näin*, 28(1), 62–72.
- Latour, Bruno. 2005. *Reassembling the Social: An Introduction to Actor-Network-Theory*. Oxford: Oxford University Press, Incorporated.
- Lummaa, Karoliina. 2010. *Poliittinen siivekäs: Lintujen konkreettisuus suomalaisessa 1970-luvun ympäristörunoudessa*. Nykykulttuurin tutkimuskeskuksen julkaisuja 102. Jyväskylän yliopisto.
- Lummaa, Karoliina. 2020. "Posthumanist Reading. Witnessing Ghosts, Summoning Nonhuman Powers." In *Reconfiguring Human, Nonhuman and Posthuman in Literature and Culture*, edited by Sanna Karkulehto, Aino-Kaisa Koistinen and Essi Varis, 41–56. New York: Routledge.
- Lummaa, Karoliina and Lea Rojola. 2015. "Johdanto: Mitä posthumanismi on?" In *Posthumanismi*, edited by Karoliina Lummaa and Lea Rojola, 13–32. Turku: Eetos.

- Meijer, Eva. 2019. *When Animals Speak: Toward an Interspecies Democracy*. New York: New York University Press.
- Menegaldo, Gilles. 2014. "Ants on Hollywood Screens. Monstrous Mutations and Projected Fears (*Them!* and *Phase IV*).” In *Insects in Literature and the Arts*, edited by Laurence Talairach-Vielmas and Marie Bouchet, 183–195. Brussels, Belgium: P.I.E. Peter Lang S.A.
- Peltola, Rea. 2021. "Ihmiskieli ja elämyys.” In *Kieli ja eläin: Vuorovaikutusta ja kieliop-pia monilajisissa yhteisöissä*, edited by Rea Peltola, Anni Jääskeläinen and Katariina Harjunpää, 401–439. Helsinki: Suomalaisen Kirjallisuuden Seura.
- Pyyhtinen, Olli. 2022. "Lines That Do Not Speak: Multispecies Hospitality and Bug-writing.” *HOSPITALITY AND SOCIETY*, 12(3), 343–359. DOI: 10.1386/hosp\_00056\_1.
- Raipola, Juha. 2015. *Ihmisen rajoilla: Epävarma tulevaisuus ja ei-inhimilliset toimijuudet Leena Krohnin Pereat munduksessa*. Tampere: Tampere University Press.
- Rojola, Lea. 2015. "Hänen olivat täytetyt linnut.” In *Posthumanismi*, edited by Karoliina Lummaa and Lea Rojola, 131–154. Turku: Eetos.
- Simons, John. 2002. *Animal Rights and the Politics of Literary Representation*. Basing-stoke: Palgrave.
- Snaza, Nathan. 2019. *Animate Literacies: Literature, Affect, and the Politics of Human-ism*. Durham: Duke University Press.
- Talairach-Vielmas, Laurence and Marie Bouchet. 2014. "Introduction.” In *Insects in Literature and the Arts*, edited by Laurence Talairach-Vielmas and Marie Bouchet, 13–20. Brussels, Belgium: P.I.E. Peter Lang S.A.
- Vermeulen, Pieter. 2020. *Literature and the Anthropocene*. London: Routledge.
- Wagner, David L., Eliza M. Grames, Matthew L. Forister, May R. Berenbaum and David Stopak. 2021. "Insect Decline in the Anthropocene: Death by a Thousand Cuts.” *PNAS* 118(2): DOI: 10.1073/pnas.2023989118.
- Zhu, Yingchun. 2018. *The Language of Bugs*. Woodbridge, Suffolk: ACC Art Books.
- Zhu, Yingchun. 2018. *The Birth of The Language of Bugs [The Birth]*. Woodbridge, Suffolk: ACC Art Books.