

# What if Elephants Ordered Dinner? Speculating More-Than-Human Futures for Human–Elephant Conflict

**NAZURDEEN N.<sup>1\*</sup> and NAWARATHNE D.<sup>2</sup>**

<sup>1,2</sup>Department of Integrated Design, Faculty of Architecture, University of Moratuwa, Moratuwa, Sri Lanka

<sup>1</sup>nazurdeennaleefa999@gmail.com <sup>2</sup>dilinaj@uom.lk

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**Abstract** – *More-than-human design (MTHD) has emerged as a framework that repositions nonhumans as active participants in design processes, challenging human-centred assumptions and opening space for multispecies futures. Within this orientation, speculative design provides tools to imagine alternative trajectories and provoke reflection rather than deliver immediate solutions. This paper brings these approaches together to investigate how speculative more-than-human design might reframe human–elephant conflict. Through participatory workshops in Puliyankulama, Sri Lanka, involving villagers, university students, and scientific experts, the project surfaced the insight that elephants exhibit dietary intelligence. Crop raiding was understood not as an indiscriminate intrusion but as a response to unmet nutritional needs. Building on this, the design work developed speculative outcomes that imagine futures in which humans actively respond to elephants’ nutritional agency. The project demonstrates how speculative more-than-human design can translate local insights into provocative design interventions that unsettle dominant framings of elephants as threats. Rather than offering technical fixes such as fences or buffer-zone schemes, it positions design as a means to cultivate imaginaries of coexistence and to foreground elephants as co-participants in shared landscapes. In doing so, the project aimed to rethink the dualistic framing of human–elephant conflict as separation and instead imagine futures of coexistence. Ultimately, this research contributes to the discourse on design for coexistence by evidencing how speculative and more-than-human design approaches can reconceptualize human–wildlife conflicts as generative opportunities for multispecies futures.*

**Keywords:** *More-Than-Human Design; Speculative Design; Co-existence; Participatory Design*

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\*Contact: Phone +94-783266146

DOI: [https://doi.org/10.31705/IDR.v2\(2\).2025.4](https://doi.org/10.31705/IDR.v2(2).2025.4)

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## I. Introduction

Human–elephant conflict is one of conservation’s most persistent challenges, especially in Sri Lanka’s dry zones, where farming communities and elephants share contested territories. Human elephant conflict can be described as a wicked problem, difficult to define, involving multiple shifting factors, and lacking straightforward solutions and conventional approaches have therefore shown limited success (Rittel & Webber, 1973). Electric fences, GPS collars, and compensation schemes treat elephants as problems to be managed, while emerging alternatives such as bee farming, often promoted as sustainable solutions, ultimately reinforce the same divide. These measures overlook the deeper ecological and cultural dimensions of the conflict. This study explores an alternative through More-than-human and speculative design. We ask how such approaches might reimagine interventions by positioning elephants as active participants. The project focuses on Puliyankulama village, where participatory workshops with local communities and stakeholders inform the development of speculative design outcomes. To achieve the objective of rethinking the conflict and its interventions, the article first briefly reviews relevant literature in more-than-human and speculative design to situate the inquiry. It then presents the project’s intervention and design process, and discusses the knowledge generated, including how design can reframe human–elephant conflict and expand methodological possibilities for more-than-human design research. This research aims to explore how speculative more-than-human design can reframe human–elephant conflict as an opportunity for coexistence rather than confrontation. The specific objectives are: (1) to investigate how participatory design processes can reveal local and ecological insights into elephant behaviour, (2) to translate these insights into speculative design interventions that foreground nonhuman agency, and (3) to examine how such design practices can contribute to broader discussions on coexistence within design research.

## II. Theoretical Framework

Recent studies in design research have increasingly adopted frameworks that challenge anthropocentric paradigms by integrating more-than-human design (MTHD) (Bernacchi & Lazzaroni, 2025; Forlano, 2017). MTHD reconceptualizes nonhuman entities not as passive settings for human activity but as active agents with their own forms of agency, intelligence, and intentionality, shaping and co-creating shared environments (Behzad et al., 2022). The approach repositions animals, plants, ecosystems, and technological artifacts as participants in the design process rather than as objects to be used. Grounded in posthumanism, new materialism, Actor-Network Theory, and object-oriented ontology, MTHD unsettles rigid boundaries between human and nonhuman (Forlano, 2017; Rafelghem & Rognoli, 2023). This shift promotes “ecologies of participation,” in which multispecies interactions are recognised as central to the creation of sustainable and resilient environments. Methodologies such as multispecies ethnography and bio-futuring extend this orientation by offering ways to understand and imagine the entanglements of human and nonhuman life (Forlano, 2017). They highlight the need for an ethics of recognition, shared responsibility, and co-creation, moving design practice away from a human-centred problem-solving model and toward an approach attentive to the interdependencies that sustain

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diverse forms of life (Iezzi & Heyer, 2021). As Giaccardi et al. (2025) further note, this shift redefines the designer's role from an expert who intervenes in systems to a facilitator who mediates between human and nonhuman agencies, making design a collaborative and responsive practice.

Within more than human design, speculative design often provides an entry point for inquiry. Rather than solving immediate problems, it stages "what if" scenarios through storytelling, design fiction, or prototyping to make possible futures tangible (Resnick, 2011). These artefacts are intentionally open-ended, provoking reflection rather than prescribing solutions (Nijs et al., 2020). When aligned with more-than-human design, speculative design becomes a framework for rethinking human–nonhuman relations. It foregrounds animals, plants, and ecosystems as agents whose needs shape design outcomes (Gatto, 2020; Jacobs et al., 2025). Methods such as participatory workshops and narrative simulations create encounters where humans and nonhumans are considered co-participants, while also drawing attention to questions of power and responsibility (Forlano, 2017; Rafelghem & Rognoli, 2023). Drawing on Light's (2024) discussion of *more-than-human participatory approaches*, such speculative encounters can be understood as sites for practicing relational and ethical awareness, where participants explore empathy and coexistence across species boundaries. By imagining multispecies futures, speculative more-than-human design cultivates ecological ethics and opens strategies for coexistence (Iezzi & Heyer, 2021). In doing so, it contributes to an emergent design paradigm attentive to ecological responsibility, material agency, and multispecies justice—extending design research beyond human-centred innovation toward the co-creation of shared, interdependent futures (Giaccardi et al., 2025).

### III. Methodology

This study was conducted as research through design, where knowledge is generated through the act of designing and reflection on that process (Zimmerman et al., 2007a). In doing so, it explored the potential of more-than-human design in addressing human–elephant interactions in Puliyankulama and examined what can be learned about speculative more-than-human design.

Puliyankulama was selected as the field site due to its recurrent human–elephant encounters and the researcher's prior field experience in the area. Over six months, seven participatory workshops (Figures 1 to 4) engaged villagers, university students, including zoologists, and ecologists. Approximately thirty participants took part across the sessions, representing diverse backgrounds such as farming, agriculture, zoology, and ecology. Participation was voluntary, and all workshops (Table 1) were conducted with community consent. This situated engagement ensured that the knowledge emerging from the design process remained grounded in local realities and multispecies interactions.

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**Table 1***Summary of Participatory Workshops Conducted in Puliyankulama and Partner Universities*

<b>Phase</b>	<b>Aim</b>	<b>Workshop</b>	<b>Participants</b>	<b>Workshop Method</b>
01	Designing with local knowledge on elephant encounters	1	Villagers from Puliyankulama	Memorial Poster Reflection – A participatory discussion using elephant memorial posters to elicit collective memories and emotional narratives of HEC.
		2	Villagers from Puliyankulama	Local Knowledge Mapping – Co-mapping elephant intrusion patterns and local experiences to surface situated knowledge.
		3	Villagers from Puliyankulama	Narrative Reconstruction – Collaborative storytelling using reordered visuals from a local HEC song to interpret community perspectives.
02	Exploring non-human agencies and designing for co-existence	4	Students from the Nature Team, University of Moratuwa	Elephant Emoji Workshop – Co-creative drawing activity to express elephants’ emotions and intentions in various scenarios.
		5	Undergraduates from the Faculty of Agriculture, University of Peradeniya	Crop-Based Speculative Sketching – Collective analysis of elephant-preferred crops to inspire speculative design ideas for coexistence.
		6	Undergraduates from the Faculty of Science, Eastern University	Anatomical Communication Design – Participatory speculation on how elephants communicate through body organs to envision new design possibilities.
		7	Undergraduates from the Faculty of Science, University of Jaffna	Sensory Interaction Speculation – Group exploration of elephants’ sensory responses to sound and light to co-develop speculative interventions.

*Note. Workshops were conducted with community members and undergraduate students from multiple universities across Sri Lanka. Details include each phase, aim, participants, and workshop method.*

The workshops were organised in five iterative phases, each building on insights from the previous one. The first community workshop focused on locating the problem by mapping everyday experiences of elephant encounters and food-related incidents. Two subsequent university-based workshops employed speculative and creative exercises that encouraged participants to design from elephants’ perspectives, such as imagining landscape interventions incorporating tree and plant species preferred by elephants, and exploring how these could reshape patterns of movement and coexistence. A later workshop shifted the focus toward interpreting elephants’ bodily signals, such as movements, gestures, and feeding traces, as potential forms of communication. The outcomes of these sessions were then revisited and clustered, allowing emerging ideas to be reframed and combined, which ultimately led to the concept developed in the final co-design workshop.

Workshop materials, including discussion notes, sketches, and photographs of artefacts, were reviewed after each session to identify ideas or connections that could be developed further. Related sketches and statements were visually clustered using an affinity mapping approach, grouping recurring motifs, metaphors, and ecological observations to reveal underlying

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relationships. The use of both physical and digital pin-up boards supported traceability between discussions and emerging design directions, aligning with RtD principles of iterative analysis and reflection.

Rather than progressing linearly, the process moved back and forth between analysis and design, revisiting earlier ideas as new perspectives emerged. Reflection was integral to this process: after each session, insights were documented in reflective memos and annotated sketches to capture evolving interpretations. The researcher-designer assumed a dual role, facilitating discussions while simultaneously engaging in design reflection, so that the processes of making and thinking occurred in parallel. Through this process, participants recognised how non-human actors both shape and are shaped by the village's socio-ecological setting.

From this participatory phase, it was possible to trace how workshop conversations gradually shifted focus from viewing crop raiding as an act of intrusion to understanding it as a response to elephants' needs. This transition represented a key moment of design-driven knowledge generation: the process itself revealed how design methods could facilitate the reframing of ecological issues. Speculative prompts were gradually introduced in later workshops through "what if" questions, scenario sketching, and collaborative storytelling to extend participants' insights into future-oriented possibilities.

**Figure 1**

*Participatory workshops conducted with undergraduate students from the Faculty of Agriculture, University of Peradeniya, Sri Lanka*



*Note. Photographs captured by the author*

**Figure 2**

*Participatory workshops conducted with undergraduate students from the Faculty of Science, Eastern University, Sri Lanka*



*Note. Photographs captured by the author*

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**Figure 3**

*Participatory workshops conducted with undergraduate students from the Faculty of Science, University of Jaffna, Sri Lanka*



*Note. Photographs captured by the author*

**Figure 4**

*Participatory workshops conducted with villagers in Puliyankulama*



*Note. Photographs captured by the author*

#### **IV. Participatory Workshop Findings and Speculative Design Outcomes**

The participatory workshops (Figure 2) conducted with students from the Faculty of Science at Eastern University revealed insights into the specific character of human–elephant conflict that extended beyond familiar explanations. While conflict is often attributed to elephants crossing through migration corridors, participants observed that elephants were entering the Puliankulama village primarily in search of food. Contrary to the widespread perception that elephants eat indiscriminately, discussions emphasised that they make deliberate choices to satisfy nutritional needs. Villagers’ repeated experiences of elephants stealing salt containers, for example, were reinterpreted scientifically as evidence of targeted dietary behaviour. By analysing these conversations and linking scientific reasoning with villagers’ observations, the study identified dietary motivation as a recurring thread across workshop materials. Building on this observation, students specialized in different fields in the workshops suggested that elephant dung could serve as a valuable scientific dataset for identifying nutritional requirements. This analytical process, connecting field observations, workshop discussions, and disciplinary perspectives, provided the foundation for reframing human–elephant encounters not as arbitrary conflict but as a form of nutritional miscommunication, opening space for design to intervene and imagine alternatives.

From these insights, the project developed speculative “what if” scenarios to provoke different ways of thinking about coexistence. We began to ask: What if crop raids were understood as

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messages about nutritional needs rather than acts of destruction? What if buffer zones were reimagined not as boundaries of exclusion but as shared spaces of cultivation? What if farming practices were reorganised to serve both humans and elephants, or if tools were designed to facilitate communication rather than control? These questions were directly informed by the analytical synthesis of workshop data, ensuring that the speculative ideas remained grounded in participants' interpretations of local experiences. These speculative prompts helped shift the frame of conflict management toward recognising elephants as agents whose choices and needs shape shared landscapes.

To materialise these scenarios, Big E's Bistro was proposed, a speculative system that translates elephant dietary requirements into actionable guidance for villagers. At its core is a village-based laboratory that analyses elephant dung to identify missing nutrients and generate "food orders." These orders specify crops such as jackfruit, mango, banana, or paddy, which villagers then cultivate in specially designated plots, reimagined as restaurant tables for elephants. Situated at the edge of the village near a stepping-stone area where elephants typically begin their approach, these plots act as welcoming entry points, offering food sources that align with elephants' natural foraging pathways while strengthening the ecological relationship between the animals and the community. Agricultural activity is thus reorganised to respond to elephants' dietary needs rather than attempting to control their behaviour. This reversal of agency places elephants at the centre of ecological decision-making and positions them as co-creators in the village environment.

**Figure 5**  
*Speculative conceptual product*



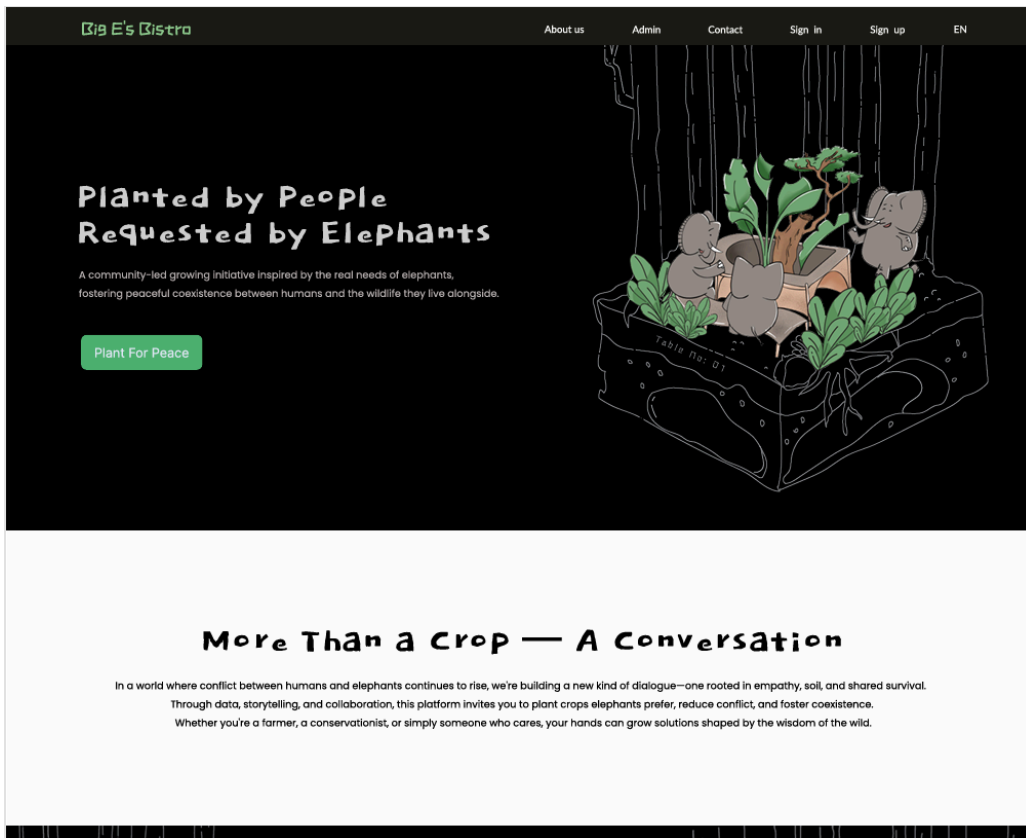
*Note. Image created by the author as part of the current study*

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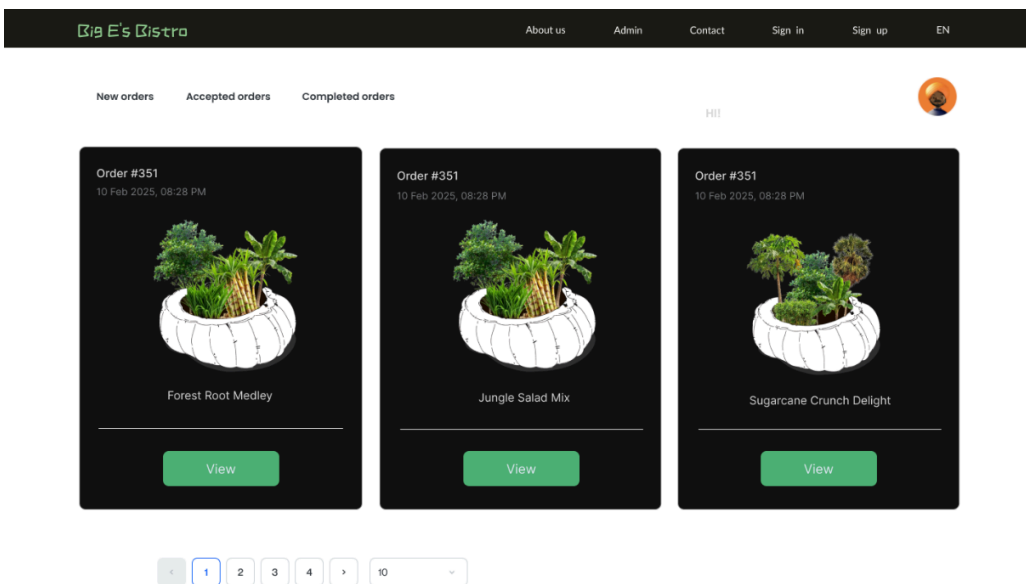
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**Figure 6**  
 General interface of the digital platform created for Big E's Bistro



Note. Screenshot captured by the author

**Figure 7**  
 Elephant “food orders” generated by the platform, specifying crops to be cultivated by villagers



\*Contact: Phone +94-783266146

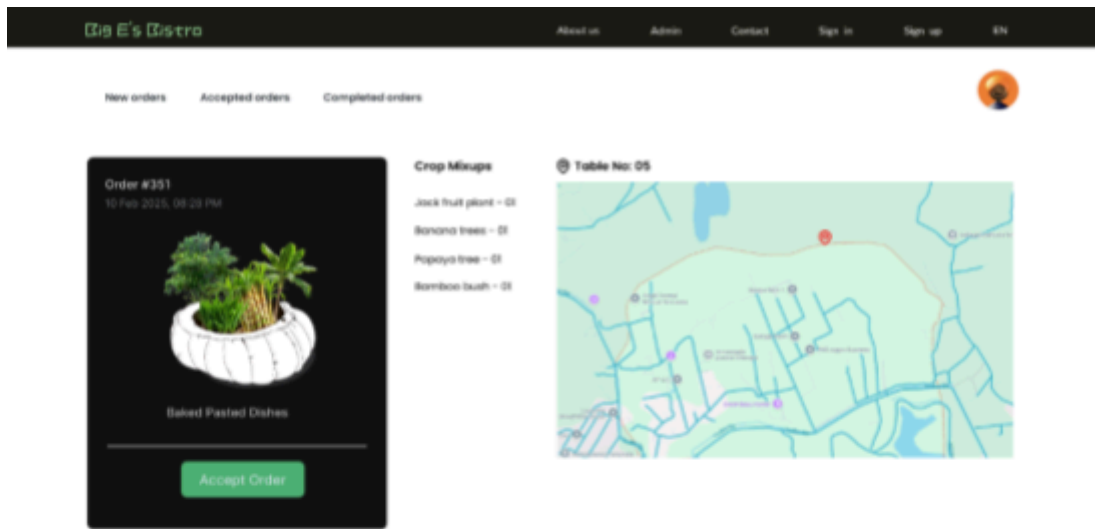
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Note. Screenshot captured by the author

**Figure 8**

Elephant “food orders” generated by the platform, specifying crops and land plots to be cultivated by villagers



Note. Screenshot captured by the author

The concept was further materialised through two speculative artefacts: a conceptual product (Figure 5) and a digital platform (Figures 6,7, and 8). The product demonstrates how dung analysis might be converted into a restaurant-style bill, while the website imagines an organised participatory ecosystem where villagers manage cultivation, harvesting, and distribution in response to elephants’ “orders.” Rather than functioning as a logistical tool, these artefacts serve as narrative devices that reposition humans as facilitators attentive to ecological signals. They

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thus make visible the analytical trace from workshop discussions to material expression, showing how participatory insights were incrementally transformed into design propositions. Importantly, this vision revives older cultural practices, as Sri Lankan traditions have historically included land dedicated to birds, elephants, and other animals. Big E's Bistro rearticulates this ethos of care for a contemporary future.

In sum, the project presents a vision of human–elephant relations in which elephants' nutritional needs drive agricultural practices rather than the reverse. It demonstrates how speculative design can make nonhuman agency legible and actionable, shifting perceptions of elephants from intruders to participants. More broadly, it illustrates how speculative more-than-human design can open new possibilities for coexistence, offering communities a framework to engage with nonhuman actors as central to shared environments. In relation to design research discourse, this study contributes to Research through Design (RtD) (Zimmerman et al., 2007b) by showing how empirical participation can generate speculative propositions that advance methodological inquiry. It also extends speculative design practice by grounding imagination in situated ecological knowledge, demonstrating that speculation can emerge from participatory engagement rather than detached conceptualisation. In doing so, the project positions more-than-human design as both a reflective and generative mode within RtD, capable of translating local, multispecies insights into design-led inquiry.

## V. Discussion

The project demonstrates how speculative design can reframe the perception of elephants in human-dominated landscapes. Traditionally regarded as problematic intruders, elephants are recast as co-participants whose dietary choices carry meaningful agency. By focusing on their nutritional needs and the ecological signals through which these are expressed, the design shifts the narrative from conflict to collaboration. This perspective emphasises that human–elephant interactions are not simply about controlling wildlife but about engaging with nonhuman actors whose decisions also shape environments.

Moreover, the aim of the project was not to anthropocentrically determine what elephants need, but to explore ways of creating mediums and channels through which they might express their needs—and to imagine futures in which humans act upon them. In this sense, Big E's Bistro operates on two levels. First, it highlights the importance of enabling mechanisms that make more-than-human voices perceptible. This is not about granting elephants the ability to speak—they have always been communicating—but about humans learning to listen. Second, it provokes reflection on how societies might develop infrastructures and practices that respond to these voices, thereby recognising and supporting nonhuman agency within shared ecosystems.

The speculative design phase, illustrated through Big E's Bistro, translated these second aspect insights into provocative scenarios. By imagining a system in which elephants place "orders" for crops, the design envisions a world where agriculture responds directly to nonhuman agency. This

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approach does not propose an immediate solution; rather, it functions as a speculative probe that provokes reflection on human responsibility in multispecies environments. It encourages consideration of ethical and ecological consequences, foregrounding the responsibility of designers when working with other species, even hypothetically.

Methodologically, the project demonstrates the value of bridging participatory and speculative design. Participatory methods provide empirical grounding and credibility, while speculative design extends the inquiry into conceptual spaces that challenge assumptions and reveal alternatives. Together, these approaches explore the possibilities of human–nonhuman co-creation and highlight design's role in making invisible forms of agency visible.

In conclusion, the research underscores that design can shift perspectives on ecological interaction. By positioning elephants as agents with nutritional preferences, it advances a more-than-human approach that encourages coexistence. Grounded insight and imaginative speculation here work in tandem to expand design practice, inviting practitioners and communities to reconsider the ethical and practical dimensions of multispecies engagement.

## **VI. Conclusion**

The study began as an experiment in more-than-human design to rethink the dualistic framing of human–elephant conflict as separation and instead imagine futures of coexistence. Big E's Bistro does not propose another technical fix to human–elephant conflict. It is instead a modest diplomatic gesture that asks what it might mean to design with those whose voices we have never truly heard. It acknowledges that living together is always partial, always negotiated, and that design can serve as a form of diplomacy rather than domination. The speculative system developed through the project, a fictional infrastructure that translates elephant dung into “food orders” was never intended for implementation. Its purpose was to make visible the forms of agency that already exist but are systematically ignored. If elephants raid crops to express nutritional needs, then the act of raiding becomes not misbehaviour but communication; a form of ecological speech we have refused to hear. To design in this context is to cultivate the capacity to listen. It requires infrastructures for sensing, translating, and responding to the demands of more-than-human life. Big E's Bistro reveals that coexistence begins not with empathy alone, but with a willingness to reconfigure the systems through which care, labour, and responsibility circulate. The project thus stands as both a speculative artefact and an ethical proposition: that design might no longer speak for others, but with them. And perhaps this is the deeper provocation. If elephant dung can become a site of design, then so can every trace of multispecies life—the soil, the leftover, the uninvited guest. The challenge for more-than-human design is to multiply such provocations, to compose new grammars of coexistence that unsettle our certainty about who designs and who decides. So rather than asking how to stop elephants from entering our fields, we might begin to ask a different question altogether: What if elephants ordered dinner, and in doing so, demanded that design finally serve something other than human appetite?

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