

Conversations with a Spider

Vibration as Interspecies Communication in Artist Tomás Saraceno's *Arachnophilia* Project

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It is late October. The European summer is over, but the dry crackle of its warmth still clings to the Madrid cityscape. I am here to lead a 'spider mapping tour': a conversational walk through the *Real Jardín Botánico*. The tour is a way of encountering spiders: conceptually, through sharing stories, anecdotes and scientific facts, but also materially, as we notice and interact with the spider/webs folded into the interstices of this garden.

The context for this tour is a large-scale exhibition in the nearby Museo Nacional Thyssen-Bornemisza, featuring works by artist Tomás Saraceno, emerging from his fascination with spiderly worlds.¹ Saraceno's public exhibition programmes often include spider tours; invitations to notice and think differently about creatures with whom we share spaces and ecologies, beyond the disgust, fear and abjection in which human-spider relations are often caught. These tours sit within the frame of Saraceno's web-like *Arachnophilia* project, in which I am also caught: a multidisciplinary research inquiry and community of interest that enrolls spiders as models and metaphors for imagining worldly relations otherwise.²

A tour participant sings out. She has found a web stitched between the leaves of a bush; it is unclear whether the web is still 'occupied'. With me is my *Arachnophilia* colleague Roland Mühlethaler, a specialist in biotremology: the science of vibrational animal signaling. He steps forward, holding a tuning fork – a tool historically used by field arachnologists. Tapping the fork on a nearby wall, he gently touches its tips, now humming with vibration, to the radial threads of this web. We watch as a spider rapidly appears from beneath the curl of a leaf under which she was concealed, darting towards this quivering object that seemingly summoned her.³

¹ This exhibition, 'More-than-humans', was curated by Stefanie Hessler and presented by Museo Nacional Thyssen-Bornemisza and Thyssen-Bornemisza Art Contemporary (TBA21) in 2019.

² See <www.arachnophilia.net and www.studiotoromasaraceno.org>.

³ The use of feminine pronouns (she/her) for web-building spiders reflects the fact that adult females are predominantly responsible for building and maintaining the complex webs with which

The spider's *Umwelt* – its sensory-material or phenomenal world (von Uexküll 2010) – is wholly different to our own. Where a human *Umwelt* skews oculocentric (for those of us with sight), the web-building spider's vision plays a much less significant role. Her image of the world is sketched by the vibrations that hum across her web's tensioned threads, tickling the vibrational sense organs stippling her body. In our spider tour, interacting with the spider – becoming sensible to her – was a matter of introducing vibrations into her web; a speculative 'dialogue', mediated by patterns of tremor. A game of call and response, in which the spider may or may not participate.

This example sets up the speculative frame of this chapter's inquiry: how art-science experiments in human-spider communication can push us to rethink the edges of inter-species relations, within the broader frame of multispecies studies. At the time of this spider tour, I was (and still am) grappling with the limits of communication with a creature whose perceptual-semiotic world and ways of being are as strange, as seemingly unknowable, as the spider. This chapter extends and wobbles this query within a broader frame: how creative practices (especially those, like Saraceno's, operating in speculative and transdisciplinary registers) propose new ways of encountering non-human subjects and storyworlds; enlarging creaturely capacities, enriching and enlivening possibilities for relation. This inquiry unfolds through a diffractive analysis of Saraceno's attempts to build affective, perhaps even communicative, relations between radically different human and spider worlds, with vibration as the mediating force.

Two examples from Saraceno's creative praxis serve as case studies in this inquiry. The first is his vibrationally mediated human-spider concerts. He calls them 'spider jam sessions', which speaks to the collaborative and playful nature of these experiments, geared towards a creative riffing as cross-body attunement; a transformation of one's body and the shape of the interspecies encounter through an alertness to the emergent possibilities and transversal sensory affectations that it fields. Spider jam sessions are grounded in possibilities for communication that arise in and through the passage of vibration: vibration being not only the primary mode by which spiders grasp and make sense of the world, but also an *intercessor* that traverses species and sensory thresholds, linking and collecting different bodies. The second artistic example is Saraceno's *Arachnomancy* or spider divination project, which uses vibratory and symbolic tools to ask questions of a spider 'oracle'. *Arachnomancy* extends the sympathetic resonance of the vibrational jam to its speculative limit; a search for patterns that connect; for an intensive ground of relationality.

Human-spider musical improvs, conversations with a spider oracle – these are *fictions*: unimaginable within the current onto-epistemological limits of earthly relations, or of language, as such. But imagination is rarely content with limits, reading in them invitations to transgress. To understand human-spider communication as a fiction is to lean into the generative possibilities of artistic "fictioning": an imaginative and mythopoetic practice that draws from the real to invent "worlds, peoples and communities to come" in which interspecies dialogue is possible (Burrows and O'Sullivan 2019: 1). Saraceno's fictions use spider science and empirical observations to reimagine possibilities

we are familiar. On reaching adulthood, most male spiders forego web-building to focus on finding a reproductive mate (Foelix 2011).

for relation; to model this world otherwise. They, therefore, carry ethico-political potential, insofar as they work to “disrupt the dominant fiction” (ibid.:16) – the hegemonic, romantic and hierarchical narratives – in which human and animal bodies have historically been caught: narratives that cleave natures and cultures and delimit worldly relations, narratives in which an affectivity or intimacy of human-spider relation is unthinkable.

Art-science fictioning is both the focus and method of this chapter’s inquiry: a research approach that creatively riffs on scientific and empirical data to develop concepts and protocols for reimagining multispecies relation. As a method, the fictioning of this chapter is transversal and diffractive, interrogating and recombining concepts across art practice, science and philosophy “in search of alternative images of inquiry” (de Freitas and Truman 2020). In order to write the fiction of human-spider communication, Saraceno’s artistic experiments are traced through different frameworks for understanding language and relation: theories of vibration in science and sound studies; ethological and philosophical accounts of animal communication; post-human refigurings of bodies and subjects. Concepts for interspecies worlding are invented in the knotting, via a Deleuzian spider strategy that “follow[s] different rhythms” and emergent lines of intensity that spring from a relational middle (Jackson 2017: 667–672).

This entangled research approach throws up more questions than answers – about the nature of language, (inter)subjectivity and the epistemologies that constrain what we think possible. But in the process, it diagrams a speculative framework for experimenting with interspecies communication. The contours of this framework are sensory-corporeal, vibrational, affective and intensive. Rather than glossing the gap between human and spider bodies and worlds, it sketches possibilities for communication via a ‘language’ of strange and partial affinities, sympathetic resonance and attunement *across* thresholds of difference. It also argues for a playful posture of openness and curiosity in order to ‘read’ the vibrational signs immanent to an encounter with a radically different other.

Two propositions are important for setting up what follows. The first is that difference – like that between human and spider – is a lure for relation; an engine that drives the “reachings” (Haraway 2003: 6) across thresholds of otherness that animate a multispecies world of beings-in-becoming. The second, via Alfred North Whitehead, is that it is more important that something be *interesting* than *true* – because interest invites “adventures with ideas” (1967: 3, 244), the fictioning of something new. In other words, concepts are not there to imprison thought, they are there for dancing with – and a curiosity about otherness is a fertile partner in this dance. Both propositions are grounded in an ethic of desire, where desire (whether for endless reachings or for the unbounded life of an idea) is understood as an affirmative force of creativity and self-invention, pushing us to imagine worlds and relations otherwise (Bisshop 2022; Braidotti 2011: 101).

Like Shivers: The Interspecies Promise of Vibrational Language

My speculation about spiders emerges from the generative middle of multispecies inquiry: between speciated bodies, but also between disciplines; a transdisciplinarity critical for understanding our entanglements with diverse life forms (van Dooren et al. 2016: 2, 5). Trained in both the arts and sciences, my research enrolls biological ideas as provo-

cations for post-human reimaginings of life and relation (Bisshop 2022, Forthcoming). This chapter's speculation not only draws on the different disciplinary habits cohering in my own body, but also leans into the soft knowledge born of my bodily entanglements with spiders and webs.

From 2017–2022, I was embedded in artist Tomás Saraceno's *Arachnophilia* lab, which takes up about half of the top floor of his studio in an old photochemical warehouse building in Berlin, Germany. It is a space both *multidisciplinary* (hosting conversations between scientific, philosophical and creative sensibilities) and *multispecies* (where human and spider bodies and worlds collide and collude). My role was in translating between these disciplines and bodies, and between the scientific and speculative aspects of Saraceno's experiments.

This lab allowed a physical proximity that rendered my "passionate immersion" (Tsing 2011: 19) in non-human lives intimate, tangible – allowing for more-than-intellectual engagements with spiderly worlds. Surrounding my desk were rows of open frames in which spiders of varying genus and geographical provenance were building species-specific webs: planar orbs, horizontal sheet webs, dome- and tent-shaped webs. For the spider, her web is more than a shelter, a species marker or trap for her prey. It is a floating instrument with which she extends and enacts her vibrational senses – a sensory modality far more acute and granular than her impoverished vision. Via specialized sensory organs of which we humans possess no cognates – the lyriform organ (slit sensilla) and trichobothria or 'hearing hairs' that cover her legs – the spider is exquisitely attuned to vibrations travelling through the air and across resonant surfaces. With limbs poised on the web's threads, the spider anticipates, produces and responds to these vibrations: the tremors she sends and receives rippling the immense silken body of her web along and through which her senses stretch.

These signals can be intraspecific: a warning or courtship message to speciated kin. They can be interspecific: a caution to predators; a siren song mimicking signals produced by prey. She also 'listens' to her web for vibrations that convey information (about atmospheric shifts or the integrity of the web itself), and to which she responds: reducing the 'webspan' in advance of a storm; finding and fixing holes made by falling twigs. For the spider, the web is an instrument and organ of mediation and sense that she continually tunes to adjust its ability to capture and relay vibrations: tightening threads to better hear the world, loosening them when she wants to retreat from it. The web materially extends her vibrational sense: spider and silk intimately interwoven in a sensory-material parsing of tremor. In effect, this web is both an extended spider body and a threshold between body and world; a *tissue* – meaning both fabric and text – on which the world's vibratory movements are written. Observing the spider from the intimacy of this shared space, I came to understand vibration as a kind of 'language' to which her body and web are exquisitely tuned; seismic signals that write her "perceptual and experiential world in specific ways" (Vint 2010: 71) and which move across thresholds of species, of life/non-life.

Language is, I accept, a risky word. The anthropocentric codifying of language (tied to human symbolic thought) is a pillar in the ontological wall between human and animal; its formal rules and structures used to exclude and delegitimize non-human expressive modes, and, therefore, ways of being. I do not argue for or *against* spider lan-

guage based on linguistic criteria; in such comparisons, “people always end up better at language than animals” (Haraway 2008: 234). But relegating spiderly forms of communication to a purely extra-lingual realm risks reifying the same speciated hierarchy of communication. Rather, I hope to probe the biopolitical axes along which the concept of language exerts its power – where to deny animals language is to deny them subjectivity, an interior world beyond mechanism, a voice with which to converse. If we wish to communicate with a spider, reading vibration as language is not only a speculative starting point, but an ethical one – part of the difficult task of “acknowledging [the] other as a fellow subject” (Vint 2010: 68).

Rather than grappling with language’s categorical limits, this chapter situates vibrational language within a broader spectrum of sign processes (semiosis) that gathers and links multiple forms of life and expression. It draws from ideas in biosemiotics (Hoffmeyer 2017) and multispecies anthropology (Kohn 2013: 9) that grant semiosis to all forms of life – describing a more-than-human semiotic web from which all forms of meaning-making emerge, from human symbolic language to bacterial quorum sensing. The difference between human and spider semiosis, then, is one of *degree* rather than *kind*: variations in the complexity and abstraction of semiotic patterns, rather than fundamental ontological divides. A difference across which we might find ways to share meaning.

While human and animal ‘language’ bud from a shared semiotic ground, each is, nonetheless, bound to the body that ‘speaks’ it: “tied to a form of life, produced by concrete and embodied experience that varies among species” (Vint 2010: 68). An embodied specificity of language presents its own problems. We do not share the spider’s acutely nuanced sensitivity to vibration; we need translational devices to render this vibroscape sensible. But we are, nevertheless, alive to the seismic realm: this underpulse, the rhythm of the world ‘vibing’. We sense or feel vibration, even if we read it differently to the spider. We have felt the hairs of our skin standing on end at a club when the sub-bass snarl of a speaker erupts on the surface of our skin, trembling our organs; a vibrant hum that arrests our senses as it passes between and links the buzzing bodies around us. Can we extend the promise of this shared feeling in the direction of human-spider communication? What possibility exists for a seismic conversation between spiders and creatures like us, for whom vibration is seemingly not signal, but noise?

As a sensory-affective language of touch and shiver that does not beg a shared symbolic code, vibration holds interspecies promise. Vibration is a language that *already* traverses domains of life, being increasingly understood as an important signalling mechanism for myriad non-human creatures – albeit sensed and understood differently among those bodies for whom tremor is a message. It is also a connective tissue on which the world’s patterning are written: from atomic and subatomic realms (string theory, molecular oscillations) to global phenomena (sound waves, seismic activity). In Saraceno’s experiments, vibration is a way of rendering the more-than-human semiotic web tangible: a resonant space of meaning-making in which human and spider need not know each other, but might affectively coincide

Spider Jam Sessions: Feeling, Not Knowing

Spiders are strange. Their queer carnality, bloodlust, segmented and hairy bodies all underscore a seemingly impassable barrier to understanding; a categorical divide written along speciated, sensory and ontological lines. And this difference seemingly challenges the very possibility, perhaps even desire, for human-spider relation. This challenge is echoed in philosophies in which non-human otherness renders their worlds (and by extension, semiospheres) unknowable – exemplified in Thomas Nagel's musings about bats and their particular *Umwelten* (1974). For Nagel, our fundamental differences in experience mean that we cannot *know* or even *imagine* what it is like to be a bat – positing an unbridgeable gap between human and non-human worlds of meaning.

For Saraceno, a threshold of difference between human and spider is not an exclusionary edge, but a lure for creative invention; for imagining how we might make relations (make sense) otherwise. This is to understand otherness as a lure, in the sense of Braidotti's neo-Spinozist biophilosophy (2011: 101), where difference is the very engine of relationality, and in a Whiteheadian sense, as an imaginative opening onto the lure of the possible.

Curious about the spider's vibratory *Umwelt*, Saraceno worked with biotremologists and technicians to invent devices (modified piezo elements) for rendering the spider's web-based vibrations audible and playing human vocal or musical acoustic signals back into the spider's web (Saraceno et al. 2021). These devices allowed Saraceno to invite musicians and performers to encounter spiders in 'sonified webs': webs that, while already a kind of musical instrument for the spider, could now transform web-based vibrations into acoustic signals and vice versa, opening a tremological channel of interspecies dialogue: the spider jam session.

The event of encountering one another shapes what emerges in a spider jam. Now rendered sensible, the spider's vibrational signals affect the human musician's choices as the jam unfolds. Reflecting on his encounter with *Cyrtophora citricola* spiders, musician Evan Ziporyn (2017) reflected that jamming worked better when he placed the bowl of his saxophone on the table on which the spiders' sonified web rested, thereby amplifying the possibility for substrate-borne vibrations to relay between human, saxophone, table, web and spider – also allowing Ziporyn to feel into the haptics of the sounds he produced. In so doing, Ziporyn experiments with gestures "as if" a vibrationally sensitive spider: creating a "partial affinity" as a "creative mode of attunement" (Despret 2013a: 71). Attunement is one way to name this inventive, reciprocal and embodied dance of inter-species communication: an affective, relational and transformational mode of feeling-with, expressing-with (Manning 2013: 11).

Difference is also what lures us to become curious about spiderly lives and worlds, where curiosity describes a "subject-forming entanglement that requires a response one cannot know in advance" (Haraway 2008: 312). Becoming curious is an active praxis of being open to the surprise of what happens. In the space of the jam, ideas about the capacities and fixed limits of human and spider dissolve – bodies now knotted together in vibrational loops of relational possibility. A polite curiosity also influences how human musicians prepare themselves for the jam. As electroacoustic pioneer Éliane Radigue was composing a musical piece for the spiders for Saraceno's 2018 exhibition at the Palais de

Tokyo, we conversed about how she might best pitch this work; she wanted to know what frequencies the spiders liked. In these conversations, she was “enlarging” the spider’s desires and capacities (Haraway 2015: 5), responding in generous and curious ways to the speculative proposition of conversing (vibrationally) with the spider. Radigue wanted to understand and be understood across the human-spider boundary – and importantly, she believed it might happen. A fiction, but also a possibility.

In the spider jam, Saraceno’s devices also transduce the human performer’s verbal or musical signals into tremors that travel, like shivers, through the extended sensory-material body of spider and web. In response to these signals, the spider might try to wrap the ends of a vibrating element in silk, shake her web or freeze. In the attunement of the jam, we are not grasping at knowing the spider’s responses or seeking to assimilate the spider’s language. Rather, we are feeling-into the thresholds of intensive difference; looking for potentials, for cues, within them. We become “apprentice[s] to signs” (Deleuze 2000: 5), alert to the encounter and the qualitative difference that it fields.

Playful searches for patterns and modes of response, spider jams might be read as “language games”: dynamic and context-dependent behaviours through which its participants construct worlds of meaning, however partial that understanding may be (Wolfe 2003: 47). This concept extends from Wittgenstein’s claim that language is tied to particular ways of being, where (echoing Nagel) the vast difference between human and animal ways of being preclude possibilities for shared understanding (*ibid.*). However, as Cary Wolfe notes, access to the worlds of meaning constructed in a language game is not determined by species, but by participation in the game itself – opening a crack in the wall between human and animal worlds (*ibid.*). In the language game of the human-spider jam, a dynamic exchange of tremor and response creates patterns of meaning-making that might align across species boundaries, while acknowledging the partiality of understanding on both sides.

In this reading, we do not need to fully *know* the animal other in order to share forms of meaning. As Timothy Morton reminds us, we do not really even know *ourselves*, nor our human partners in conversation (2010: 39). Moreover, wrestling with the “fantasy of climbing into heads, one’s own or others” only hinders our ability to make “multispecies semiotic progress” (Haraway 2008: 226). Thinking in and with the world troubles the boundary between self and other (Morton 2010: 39) – and perhaps, by extension, between human and spider worlds. This reorients claims of interspecies unknowability, such that the uncertainty of self-knowledge also troubles the seeming gulf between species. The challenge, then, is not one of overcoming an absolute barrier of understanding, but of navigating a spectrum of partial understandings, resonances and shared patterns – as we do with our human others, with *ourselves*. We do not need to *know* what it is like to be a spider; through language games, we invent our own worlds of meaning.

The communication of the spider jam exists in a relational space of “not knowing”, which Marisol de la Cadena (2021) proposes as an antidote to an anthropocentric epistemological desire for absolute knowledge. Not knowing does not refuse knowledge; rather, its privileged perspective. Not knowing is a way to acknowledge the complexity of the spider’s sensory and subjective world as something that can be attended to, danced with but not metabolized. Not knowing is where an open and curious approach to encountering spiders must begin; an undoing of certainty that readies us to be trans-

formed by what emerges in an encounter. Not knowing also allows for the possibility that the fiction of human-spider communication might be *actual* – in the sense that the jam is a dialogue: it affects and transforms us both. The jam produces its own kind of meaning, perhaps its own kind of language, in a vibrational dance that communicates the nature of the relationship and is also the means of relating (Haraway 2008: 26). Not knowing becomes the epistemological ground for invention, for creative experimentation with modes of communicating that draw from the radical possibilities of art fictioning fields.

Vibrational Communion: Resonant Sympathy

Vibration's potential to open human-spider communication lies in its capacity to "cross distances between things, between people, between self and environment, between the senses and society" (Trower 2008: 133). Vibrations are transgressive, traversing and confusing bodily and species thresholds; a smudging between hearing and tactility (Friedner and Helmreich 2012) that rewrites our sensory subjectivity.

Opening ourselves to vibration, then, might offer a path for undoing our human habits of sense and relation; for displacing the hegemony of the eye – our oculocentrism – but also the 'I' – the way we think of ourselves as sensing subjects. What new sensorial intersubjectivities might arise from taking vibration seriously, from teasing open the promise of a "vibrational ontology" understood as "the basic processes of entities affecting other entities" (Goodman 2010: 81–83)? In its disruptions and transgressions, vibration is an alluring proposition for thinking about post-anthropocentric modes of sense and language, and, therefore, speculative modes of attunement with non-human others – like the spiders who express the human other's limit point.

In a spider jam, our wholly different sensory schema means that vibration will be felt and parsed differently; but there is yet space for something to be shared. An idea that helps us here is the resonant sympathy that vibration fields; a way of linking disparate and different bodies, where resonance designates a mode of being in sympathy with another body (McQuinn 2021: 2). For Bergson – who gave us an image of vibration as a universal continuity – sympathy is at the heart of intuition: a sympathetic effort to rhythmically "coincide" with that which is "unique and consequently inexpressible" within another body (1999: 24). Here, sympathy unfolds as a mode of "co-feeling" with the flows of energy immanent to the event, as it was for the Stoics, who grounded their divination practices there. The 'co-' is speculative but imperative: indexing the possibility of something shared between human and spider.

We already know something about vibrational co-feeling as a way of relating to one another. Recall the earlier image of being caught in the field of resonant tremor at a club. Luis-Manuel Garcia (2020) describes the resonance between bodies in techno clubs as a "vibe": a shared, but not singular feeling – meaning felt differently, as it is for the human and the spider in the jam. The vibe is a feeling that arrests our senses and stretches between bodies, all caught in resonant throbs of intensive tremor. And this resonance, as Austin McQuinn (2021: 133) reminds us, brings us closer to the experience of "creaturely sound"; amplifying possibilities not only for a vibrational sympathy with non-hu-

man creatures but also for feeling into our own creatureliness, our own non-human becomings.

The resonance of a spider jam fields potential for a pluralistic sympathy that summons, collects, shapes and relates human and non-human bodies along vibrational axes of difference and intensity. Here, human-spider communication becomes a question of embodied attunement, curiosity about difference, affective vibrational resonance and sympathy, and radical undoings and becomings-other. In this context, artistic fictioning is not a flight from the earthy and corporeal ground of interspecies relations – but a provocation that asks: *What cues, what potentials for being, sensing, relating otherwise are already here, in the material and affective space of an interspecies encounter?* The fiction of the spider jam writes interspecies encounters in the form of a “radical mediation” in which there is “no discontinuity between human and non-human agency or semiosis” (Grusin 2015); in which the relating of bodies conditions their emergence. The spider’s vibratory language is not assimilated by the human in this co-constitutive emergence; instead, vibration – and the resonant sympathy and sensory smudging it fields – provides the conditions for drawing forth the non-human within the human; non-human-becomings as movements towards collective enunciation.

Arachnomancy: From Partial to Strange Affinities

Saraceno’s spider divination or *Arachnomancy* project quivers these cross-species vibrational attunements in even more radical ways – pushing the becoming-non-human of the spider jam towards a becoming-intensive of vibrational (molecular) alliance. The *Arachnomancy* project takes different artistic forms: an app by which users access a series of symbolic cards and a databank of recorded spider vibrations to mediate an encounter with a spider; ritualistic gallery performances; a website allowing users to recruit the services of Mambila spider diviners.⁴ Across these iterations, the spider is imagined not only as a communicative partner, but an ‘oracle’: a figure of wisdom, a teller of fortunes. In so doing, it effects a radical reworking of “the ethics and politics of relationality” across the human-animal divide (MacLure 2021: 509). The spider’s subjective and semi-otic world is not merely acknowledged but granted privileged status: offering access to parts of the world ‘we humans’ cannot reach.

Arachnomancy draws inspiration from *Nggam du*, a spider divination practice particular to the Mambila and Yamba people of Cameroon, and cues across both practices help sketch our speculative framework for human-spider communication. *Nggam du* uses a set of symbolic leaf-cards in a rule-based, but intensive, ritual for consulting the divinatory avatar of a ground-dwelling spider (Zeitlyn 1987). Cards and objects are arranged around the spider’s burrow, the scene covered with a pot. The diviner asks their question of the spider – tapping the pot for emphasis, sending tremors into its hide. On return, the patterns of the spider’s rearrangements are examined; symbolic assemblages from which an answer is gleaned (*ibid.*).

⁴ See <https://nggamdu.org/> [Accessed 27 December 2024].

Beyond a symbolic interpretation, *Nggam du* – like the spider jam – relies on cues given in the sensory-material relations that unfold between human diviner and spider oracle. This divinatory communication proceeds from embodied relations (of care and attention) that take effect even before the performative ritual of *Nggam du*: the diviner studying the feeding preferences and behavioural caprices of the chosen spider oracle in advance of the act (Gebauer 1968: 140). These pre-ritualistic relations might be read as behavioural ‘conditioning’ – the diviner cueing the spider’s eventual response – but an inversely reciprocal relation could also be at play: the spider conditioning the behaviour of the human who consults it, sketching a rhythm for this divinatory dance. Spider and human each preparing themselves for the open space of the divinatory event.

In an early iteration of *Arachnomancy* in 2017, a *Nephila* spider ‘oracle’ in a sonified web was hung in the centre of a dimly lit space in König Galerie Berlin, for Saraceno’s intervention in an exhibition by artist Jeppe Hein. Several human interlocutors (including me) posed questions to the spider, after which we lay back on banks of cushions, waiting for her reply – a vibrational relay now rendered sensible to both spider and human via transductive devices embedded in the sonified web. As we installed the web in this space, our *Nephila* oracle spent time adjusting the threads of this strange silken architecture to which she had been introduced: her web-tuning echoing through the space: *pluck, tap, purr*. But once the divinatory performance began, she became silent and still. Not a single tremor did she send in reply, at least not one audible to those of us gathered there, listening in anticipation.

What does it mean when the animal refuses to join the conversation? The spider’s refusal is a way to register – to sense or feel – her agency (Despret 2013b: 42). Reading her silence as a message, ‘I would prefer not to’, became a way to recognize her as a subject with “opinions, wills, desires and interests” (ibid.: 41) which may not coincide with our own. Her refusal to engage with our rules of conversation also exposes our expectations – about the temporality and pattern proper to conversation – which affect our ability to notice, attune, to the conversation we are already in.

As we waited for our oracle to respond, the spider’s silence became another affective provocation circulating within this shared space. In the slow and pregnant temporality of anticipating her reply, what emerged was not a recognizable signal from the spider, but a collective space of heightened receptivity: an intensification across bodies participating in the event. Our wait was not passive, we were tense and alive to the possible sensation of tactile sound. Was that a scratch? Had the spider moved a little, sending a shiver of reply? Resting gently on the floor, my fingertips were hypersensitive to tremor. Was I waiting for the right thing? Would I notice an answer if it came? In this pause, the entire room felt as if it were humming with vibrational potential: a shimmering and transductive force that never concretized as a perceptible (or quantifiable) response (signal) from the spider but which seemed to tend and prehend the potentiality (or virtuality) of mediation across species divides. This space of encounter became a threshold to possible threads of vibrant relation. It was this very space of affective and uneasy alliance that carried the intensive force of our voiceless interspecies encounter. Were we not already communicating, in the very ‘throb’ or hum of the room itself?

Like the spider jam, the *Arachnomancy* event used the technical mediation of vibrational signals to effect a speculative communication channel between diviner and spider

oracle. The *divinatory* frame, however, intensified the ways in which relations and signals are shared: at the level of preparation – the intensive work of opening to an encounter with an expanded sense of spider subject as ‘oracle’. There was also an intensification of the ‘communication’ at play, divination reaching for hidden forms of knowledge as well as language. In spider divination, communication proceeds not via representation or behavioural analogy – the “as if” of partial affinity – but via a “stranger affinity” (MacLure 2021: 502) that feels into the “abstract compositional” (Ramey 2010: 11) patterns – the backgrounded flux of vibrational oscillations – linking spider, human and world.

Detached from signification, the language of divination becomes one of intensive material force: an “experimental semiotics” (Ramey 2010: 10) of tremors immanent to the event, but hidden, not fully graspable (MacLure 2021: 502). What is grasped, then – this abstract composition – is a sense of the “pattern which connects” (Bateson 1979: 8) human and spider across a larger network of organisms, all composed of material forces vibrating at different contractions and speeds. Vibration, thus, operates differently in divination than in the spider jam, not as a relaying of sensible signals within a shared vibe but as a kind of “vibrational ontology” or ground: the moving field that remains “if we subtract human perception” (Goodman 2010: 83). A vibrant image, perhaps, of a living semiotic web of meaning-making beyond symbolic or human language (Kohn 2013: 16). The connective matrix of the cosmos from which an abstract composition – a divinatory message – is drawn.

If divination exposes vibratory connections between human and spider, it does not seek to flatten them onto a single plane. Vibratory patterning *requires* the difference, the separateness, of the entities it links. The relation is not one of assimilation but of an “uncanny resonance” (Ramey 2010: 19) between spider and human bodies, stretched along vibratory axes of intensive but disjunctive affinity. To consult the spider oracle, or attempt to divine something from the patterning of the spider cards, is to feel into the lure of the *possible*, including the possibility (or fiction) of knowing across language, material, species and temporal boundaries. It is also a practice of developing new relations with one’s own sensory/psychic grasp of the world: divination as a rewriting of both subject and world. It is, perhaps, to move from interspecies to transcorporeal (Alaimo 2010) communication – bodies not only linked but co-constituted in the linking.

Beginners in an Unknown Language

Narrating the multispecies world requires us to take seriously the idea of other-than-human storied worlds, modes of expression, even language. It, therefore, demands a full embrace of a nondualist and post-human paradigm for understanding the world – one that moves beyond the fundamental and hierarchical separation of human and non-human, those who have language and those who do not. It moves us towards a reading of the world that is post-anthropocentric (not simply of and for human species) but also emergent (endlessly creative, capable of surprising us).

To render the world differently requires a degree of improvisation and imagination, and this is where art can help us. Imagination is not the sole reserve of art – philosophy, science and theory are also imaginative territories. But art offers a way of materially

manifesting and testing imaginative concepts in multispecies studies: rendering real or tangible speculative possibilities for making relations otherwise. Art becomes what Andrew Pickering (2017) calls an “ontological theatre” that stages, rather than simply describes, an emergent and post-anthropocentric world in which multispecies storyworlds matter.

In this chapter, Saraceno’s *Arachnophilia* art-science project stages a world of interspecies relation via a language of vibration; an affective patterning felt by human and spider, through which we might find zones of resonant connection. The barriers to this idea are structural (biological/linguistic), sensory-corporeal and ethico-political, where the bodies who possess and use language also get to count as political subjects. The challenge, perhaps starting point, is to acknowledge spiders as subjects with their own strange language, desires and ways of being.

Extant limits to human-spider communication mark Saraceno’s works as fictions: speculative – meaning imagined, but also pointing towards a future where language, agency and subjectivity do not belong to humans alone. As such, they work to queer dominant narratives about life and relation, “not for the easy frisson of transgression, but for the hope for livable worlds” (Haraway 1994: 60). In so doing, they respond to an imperative in multispecies studies to rethink an ethics and politics of interspecies relation. They ask: *How might artistic experiments be mobilized towards an ethics and politics committed to more-than-human flourishing?*

Saraceno’s fictions widen the community of language beyond an anthropocentric frame, reaching towards intensive and embodied modes. In the process, new speaking subjects and possibilities for relation emerge through a radical vibratory mediation of human and non-human bodies. In this emergent semiosphere, the spider’s vibratory language is not assimilated by the human. Rather, vibration – and the resonant sympathy and sensory smudging it fields – summons a collective tendency for becoming-other that already exists as potential in a spiderly encounter.

The artworks examined also propose a conceptual framework for ongoing experimentation with interspecies communication, the contours of which are as follows:

- 1) The otherness of non-human worlds need not be flattened or grasped for a conversation to take place; difference is a generative force for relation.
- 2) Preparing yourself to “go visiting” non-human worlds (Haraway 2015: 5) involves a rupturing of a sense of self – “loosen[ing] the hold of reason” (MacLure 2021: 505); an intuitive movement beyond the human habits of perception and intellection (Bergson 1999: 24) in order to become curious about and open to the agencies and affects animating the encounter.
- 3) An embodied and intensive mode of communication – beyond formal language, intellection and the need for knowing – might be grasped via a sympathetic resonance between bodies, in which vibration is an agent of transgressive alliance.
- 4) To imagine communication beyond formal language is to seek and invent intensive patterns in which bodies might affectively coincide, and the sensory-aesthetic work of art-science fiction is the method proper to this query. The promise of vibrational interspecies communication suggests that we might reach across species divides and glean storied worlds not premised on a human subject or human sensory schema. It

is also, perhaps, an exquisite risk. If vibrational signals are normally hidden from us, it may well be that these dialogues are not ours to know; that we should resist the human hubris that seeks to colonize all language, that we should be content to rest in not knowing. On the other hand, as we continue to wreak ecological violence through globally distributed, anthropogenic vibrations – the machinic hum that is now the undertone to the world – then ‘human’ interference within a more-than-human vibroscape is our responsibility to understand and address. Understanding and respecting vibrations as language might offer a step towards cultivating this responsibility, in that it forces us to reckon with those who speak this language as political subjects. A third option, which embeds an affirmative premise, is that opening vibrational channels of interspecies communication might shift the anthropocentrism of our more-than-human relations precisely because we are beginners in this vibrational language; meaning that we cannot assume the sovereign position to which we are accustomed. As vibrational language effects a kind of sensory smudging not easily transformed into intellection, it writes our sensory-cognitive habits otherwise – drawing us differently into our bodies; provoking us to think and sense otherwise. To imagine ourselves as beginners – as not only apprentices to vibrational ‘signs’ but also students of those who ‘speak’ this language – is to invert the power dynamics of a human-animal conversation. It asks us to listen, rather than speak. Attentive listening is an active praxis of becoming porous, becoming curious; a way to open ourselves to emergent potential, to the fiction of relating otherwise. Perhaps we should search for signs of the conversation – the story, the pattern – that we are already in.

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