Attunements to fog:
Capture as an idiom for more-than-human entanglements

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We have barely finished installing Sergio's fog catcher before he exclaims: "Look how the water is trickling down!" I fix my gaze on the net above me, which the seven of us have set up perpendicular to the direction of the wind. Indeed, water has already begun running down along the thin plastic threads. "Look, look…" Sergio insists, again and again, while following the water droplets with his index finger as they accumulate and grow big enough to be pulled down by gravity, quickly filling the gutter that runs horizontally below it. Someone laughs in excitement. I have long been aware about the possibility to capture and concentrate the tiny water droplets we are currently inhaling up here in the hills. Even so, I'm surprised by a sense of allure that this sight instantaneously evokes in me. There's something surreal about the whole setting. I shake off my paralysis to step back and have a look around, squinting. As far as I can tell, there's only mist, accompanied by the aeolian sound of the wind, and occasional truck honks breaking through the thick blanket of fog covering the city below us. Water appears out of nowhere, literally conjured out of thin air. "We've found the water tap of the *loma*," Sergio continues, with an ever-widening grin on his face, "the *lomas* do have water!"

Figure 1: Sergio surveying the water captured by one of his Standard Fog Collectors (photo by the author)

While fog catchers have been used historically along the South American Pacific coast to probe alternative water sources, they have also generated various unanticipated effects. Through experiments such as the one carried out by Sergio, fog, an otherwise elusive and ephemeral atmospheric phenomenon, becomes enrolled in environmental infrastructures that enfold atmospheres, humans, vegetation, and even aquifers, thus casting into uncertainty what and where fog can be, and what fog can index and do. As "ontological experiments" (Jensen and Morita 2015), fog capture activities participate in the surprising elicitation of an altogether novel set of connections that render landscapes watery.

In Didier Debaise's (2017) explication of Alfred North Whitehead's concept of prehension, we learn that capture can be understood as a "transformative activity that changes and modifies the elements through the relation itself" (*ibid*. 52). Not a "reduction to the 'same'" (*ibid*.) through domination, successive captures are instead

generative of worlds: "the many becomes a certain singularity through successive prehensions that, step by step, form a world proper to each, *a cosmos for each out of the soil of an initial and shared chaos*" (*ibid*.: 54, emphasis original). While Whitehead's notion of prehension is part of a broader metaphysical system, it becomes especially fruitful for the analysis of fog capture when read conjunctively with literature on traps. For Alberto Corsín Jiménez and Chloe Nahum-Claudel (2019), traps "terraform a relationship between people, prey and the physical and invisible landscapes that they share" (*ibid*.: 13). In drawing environments and actors together, they have certain transformative effects upon them.

With recourse to Whitehead's concept of prehension and the anthropology of traps, this blog entry uses the example of fog capture in Peru as stepping stone to highlight the generative capacities of relations of capture. Drawing inspiration from Corsín Jiménez and Nahum-Claudel, I further posit the idiom of capture as heuristic for exploring the transformative effects of more-than-human entanglements more generally.

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Excited about the prospect to install fog catchers in the *lomas*, Oscar was often quick to lend Sergio a helping hand with his experiments, as was I. I first met him when I joined his conservationist association on one of their guided ecotourism walks in a *loma* ecosystems in the outskirts of Lima. As their scientific name—fog-oases—is telling of, these ecosystems are intimately entangled with fog, which emerges each winter thanks to the cold waters of the Humboldt Current. As coastal winds blow the cool air over the city, a thick mist appears and soon begins flowing uphill, as it were, in what is otherwise a hyper-arid region. During such months, when visitors are surrounded by dense fog, Oscar usually stops the groups next to one of the reforested *tara* trees and shakes one of its branches. He pauses as the water pours down over the soil, makes sure he has the visitors' attention, and then goes on telling them about the vast amount of rain that – despite Lima sometimes being referred to as a city where it never rains – nevertheless does pour down in the *lomas*. All thanks to these "natural fog catchers."

Shortly thereafter, Oscar pulls out a series of photos from his backpack and holds them up for visitors to see. He starts by showing a photo taken in the Atiquipa *lomas* further south along the coast, often regarded by enthusiasts as the best preserved fog-oasis ecosystem in Peru. In this particular photo (Figure 2) we see a group of trees, which he explains are several hundred years old. "Imagine how much water they capture," he says. Next, Oscar shows a photo of a waterfall, also in Atiquipa. He tells us that it is produced by fog-water captured by the forest, and then holds up a sketch of the ecosystem where we are currently standing. It depicts what the *loma* might have looked like before the destruction of the forest that he deems existed here also. The sketch shows several rivers running down from the *lomas*, all the way to the coast some ten kilometers away. Oscar points out that, in fact, it potentially rains more here than in the Andes and the rainforest. But, he explains, this is *precipitación oculta*, hidden rain. Absent are the natural fog catchers, the trees, to capture what he refers to as horizontal rain, fog.

Figure 2: Oscar holds up a photo of *tara* trees (photo by the author)

In our conversations, I would learn from Oscar it was only some 13 years earlier that he first made all these connections. Back then, two German civil engineers had been conducting experiments with fog catchers to provide water for the nearby community where a water infrastructure was missing. They did so by drawing attention to how water in these arid regions had always been abundant, albeit trapped in the material condition of fog, suspended in the air. Akin to my own dazzlement in the opening vignette, Oscar too had been amazed by the incredible amounts of water captured, which spurred him to relate the fog to dried out springs in the area. And Oscar was not alone. A one-day trip south along the coast would take me to the Atiquipa *lomas* so often mentioned by Oscar and his *loma* enthusiast friends. Here I learned from Peruvian biologists who had conducted experiments in the area that while fog catchers had been used mainly to probe fog as water source for reforestation, the volumes of water captured amounted to a shift in perception of the ecosystems themselves. The biologists would tell me that experiments not only confirmed their hypothesis, but they also no longer believed that the local river had its source further inland. Instead, they were now convinced it was produced locally, by fog-water captured by trees.

If capture is often understood as a violent act of domination, the unanticipated effects generated by fog capture may spur us to describe it also in a positive idiom. To draw from Timothy Choy's (2018: 73) article on "experimental apparatuses of atmospheric attunement" in the context of mushroom technoscience, fog capture may be said to have achieved "not just an attainment of the object of the hunt," but likewise "a stirring of the chaser into new relations and techniques of attention." Akin to what happens when chemists and mycologists use a set of apparatuses to concentrate elusive smells, fog capture elicits relations and modes of knowing by concentrating water droplets suspended in the air.

Figure 3: Fog-water captured by *tara* leaves (photo by the author)

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In their introductory article on the anthropology of traps, Corsín Jiménez and Nahum-Claudel (2019: 2) bring to our awareness how the trap may function as a "material interface" between the worlds it relates to one another. As such, traps participate in the enactment of the very environments at play, rendering vulnerable to change the entities drawn together.

Spiderwebs are especially illustrative. Hans-Jörg Rheinberger (1997) has noted how the spider's web "must be meshed in such a way that unknown and unexpected prey is likely to be caught. The web must 'see' what the spider actually is unable to foresee with its unaided senses" (*ibid*.: 78, cited in Corsín Jiménez 2018: 62), which suggests the web to be a sort of prosthesis containing information about the given prey; what the latter means is carried in the very design of the web. Perhaps we may think of a hole in the ground that without necessarily resembling that which it is set out to trap nevertheless

carries in its inverted design information about the latter's shape and size. "The spider and the fly, in other words, mirror each other in the ecological interface of the web" (Corsín Jiménez 2018: 63).

If the web can thus be posited as an extension of the spider's body, the fly-likeness of the former can be said to also leak into the latter. Jakob von Uexküll (2010: 190-91, cited in Corsín Jiménez 2018: 63) writes:

> The spider's web is configured in a fly-like way, because the spider is also fly-like. To be fly-like means that the spider has taken up certain elements of the fly in its constitution…. The fly-likeness of the spider means that it has taken up certain motifs of the fly melody in its bodily composition.

Phrased differently, the fly-likeness of the spider means that its body takes on fly-like characteristics. These characteristics are translated onto a spider that has led a life along threads spun intra-actively with the fly and its lifeworld.

Figure 4: Fog-water captured by spiderweb in the *lomas* (photo by the author)

Note, however, that becoming fly-like entails not similarity. Recall that a hole in the ground, much like a sieve, is an *inverted* version of what it is supposed to capture. More specifically, it is an inverted version of the latter's shape and size. Not, for instance, the totality of its external relations, its color, weight, or smell. The relation is partial, and the same is true for the relation between spider and fly, mediated by the web. Not only do the involved parties mirror each other, but not all aspects of the fly and its lifeworld are relevant for the capture to successfully take place. The process of becoming fly-like is therefore conveniently framed in terms of Whitehead's (1978) concept of prehension.

In Debaise's (2017) reading, prehension describes processes of individuation. Every new entity is the "emergence of a unity that captures, appropriates and engulfs the multiplicity of other actual entities" (*ibid*.: 56). The new entity is in turn symmetrically added to that multiplicity as one more actual entity, subject to future captures. Crucially, appropriations of already actualized entities involve positive and negative prehensions alike; while "the total universe of actual entities 'conspires' in each new individuation" (*ibid*.: 73-74), not all actual entities are captured in the same manner. Exclusion is no less a link than is inclusion.

By characterizing capture as entailing both by relations of connection *and* relations of disconnection, Whitehead avoids the pitfall of understanding "the act of capture as a relation between two individuals already constituted before the capture itself," where one party would become simply "the object of another" (*ibid*.: 51-52). Rather than a reduction to sameness, the space of uncertainty created by the particular *manner* in which the capture happens is suggestive of its propensity to novelty. As such, prehension enables us to better grasp what it might mean that the spider, through practices of trapping and trap-making, becomes fly-like without necessarily turning into a fly, but by continuously becoming something other than both the fly and itself.

Fog catchers exhibit generative capacities reminiscent of those highlighted in anthropological literature on traps. Their way of rendering subjects differently attuned to fog has amounted to reconceptualizations of *lomas* as ecosystems for which fog is

imagined to play a central role. As a corollary effect, they have participated in the making of a public around these ecosystems, attuned to the fragility of the latter's relation to fog and the possibility to re-establish such presumably lost *loma*-fog and, by extension, human-fog relations. This is, to draw again from Choy (2018: 71), a mutual capture that traps also the trapper; a becoming fog-like.

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"Fog betrays," writes Michel Serres (2008), "completely fills the environment with potential things." As such, fog disturbs ontology, blurring the "distinction between being and appearance." While Serres had in mind mainly fog's resemblance to both "medium and object, what covers and what is covered" (*ibid*.: 70), I have hinted at a somewhat different way in which fog fills the environment with things, including how fog altogether transforms that environment when engaged through apparatuses of capture. Much like an inquiry creates the conditions for semiotic difference by imposing limits, here too fog capture renders certain relations visible only by way of a very particular kind of provocation. Yet, as ethnography sometimes teaches us, and as fog capture illustrates: while questions may indeed limit the scope of possible answers, the eventfulness of the inquired, human or more-than-human alike, might sometimes also laterally inform and upset the very terms of the questions posed and thus give way to something unexpected.

Enacting environments through traps entails particular forms of "touching" (Tsing 2019) between the environments thus related. As I have intended to convey, such touchings may amount to unanticipated effects, whereby spiders become fly-like and subjects differently attuned to fog. Can the idiom of capture serve as heuristic for exploring the transformative effects of more-than-human entanglements more generally? Akin to the changes generated through the interfaces of traps, may this idiom also render our own inquiries vulnerable to transformation and thus enact such entanglements differently?

Notes

[1] *Loma* is the Spanish word for hill. Among my interlocutors *lomas* refer to fog-watered, often hilly areas along the Peruvian coast.

[2] Throughout this text I use the term "experiment" in two different senses, both present in this paragraph. Whereas the first stands for practices of experimentation in the most colloquial sense of the term, the second, here invoked by "ontological experiments," encompasses also what Casper Bruun Jensen and Atsuro Morita (2015: 83) describe as the many times unanticipated "entities and forms of knowledge" generated by experimental practices in the former sense.

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