

Is that a ghost in the shell?

Where to begin? As I research, trying to find my way around the anchor of this text, I find a quantity of entry points, wormholes to pass through. Several bodies of water, several stones thrown at them. And whilst the stones drown in a slow descent, the concentric circles, departing from their ground zero, draw upon the transparent surface enmeshed areas of shared interests, $A \cap B \cap C$.

The end of *the world artifact*: monolithic K is crumbling, and today, it has become its own tombstone¹. Jumping after the white rabbit before me, not one, but three keys are necessary to enter the safe where Grand K is kept, securely enclosed under three glass bell jars. As with the perishing rose in *The Beauty and the Beast*, this isn't enough protection, for despite close attention, it also loses its pristine petals, to wit, about 50 micrograms or the mass of a fingerprint. It must now grow to its right mass again. In lieu of spatters of mud, its evanescence; in the cloud: the formula. I wonder if formulae are impeccable and polished ideas of the world and its laws? Are these representations sacred placeholders we – despite our hunt for accuracy – fill with yet imprecise data? It almost looks like a too perfect frame for an imperfect world.

¹ The first kilogram was originally called a “grave”.

World, writes Jean-Luc Nancy,

means at least *being-to* or *being-toward* [*être à*]: it means rapport, relation, address [...]. Thus the world is not merely the correlative of sense, it is structured as sense, and reciprocally, sense is structured as world.²

How does one translate the black box that is the *mundus* then? How do we measure the world against ourselves? Through a fragmented body: foot, inch, palm... Through walking: the Latin mile, *mille passus*...

The journey begins with curiosity – and as I walk, it becomes *curiouser* and *curiouser*.

What if the referent changes or is unstable? Think of Alice, whose body, responding to the potions she ingests, shrinks to then be blown like a balloon, while the surrounding world seems to distort itself into a strange fantasmagoria. Tears morph into sea and the notions of scale and proportions become blurry. The elasticity, of body, of world, confuses her. She cannot trust her senses: “*holding her hand on the top of her head to feel which way it is growing*”, she cannot *feel* anymore. Suddenly, a palm, an inch or foot doesn’t mean the same thing. She cannot rely on her body

² Jean-Luc Nancy, *The Sense of the World* (Minneapolis: University of Minnesota Press, 1997), p. 8.

to measure the world. Which is puzzling, unsettling, uncanny, scary even: she's never sure what she's going to be. "*For it might end, you know*" she says to herself, "*in my going out altogether, like a candle*".

Grand K meet Alice. Alice meet Grand K. Victim of dirt and impurities, victim of the potions. When the wrong size, the key becomes unreachable, the door remains unopened.



(Fig. 1: Alice finds a tiny door behind the curtain.)

As we investigate the world through our senses, we are obliged, in order to communicate what has been body-filtered, to fragment it. It occurs to me that words might be '*out-bodiments*': external referents like fragments, shells or dehiscent structures still bearing the marks of their origin. Once detached, they seem to acquire a new autonomy and to contain, within their elastic and resilient boundaries, dynamical definitions whose occasional overflows eventually force a shift: new meaning. Sometimes, a neologism. This is why *word*-liness (*mise en mots du monde*), the fragmenting of the world

with our words, “*may appear to be the reverse, in tiny pieces, of a totalisation [worrying]³ itself*”⁴. The thin membrane of language has gone into pieces, scattered around, crackling as it grows, pushed from inside: words left behind in a multitude of exuviae.

‘Definition’ is used in photography to describe the relative sharpness of an image. I find it amusing to think of words as photographs (prises de vue), some more blurry than others, of the world. Our ever-expanding vocabulary is precise to a certain point: it has been pointed out to me that the word *cleave* for example means both *adhere* and *split*, two permeable definitions in apposition.

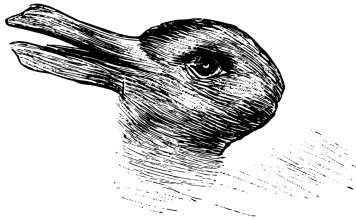
In the philosophy of Science, several descriptions can coexist: equivalent descriptions⁵. You know, the ‘rabbit-duck illusion’. Wonderfully lost, our curiosity kills the cat, or not, meaning that somehow our active *looking* forces nature’s resolution. Hence, an attentive observer is already, by the simple act of *looking*, interpreting the world, playing it like music, thus contributing to it. The

³ My translation. Jean-Luc Nancy, *Le Sens Du Monde*, Collection La Philosophie En Effet, Ed. rev. et corr (Paris: Galilée, 2001), p. 189.

⁴ Jean-Luc Nancy, *op. cit.*, p. 123.

⁵ $E=mc^2$, mass and energy are essentially different expressions of the same thing. Brian Resnick, ‘The World Just Redefined the Kilogram’, *Vox*, 2018
<<https://www.vox.com/science-and-health/2018/11/14/18072368/kilogram-kibble-redefine-weight-science>> [accessed 13 April 2019].

simple act of looking, interpreting the world. We play it, like music from a score. In French, sheet music is *partition*: the idea of separation cleaves to it.



(Fig. 2: Still following the white rabbit - or was it a duck?)

In mathematics, formulae are also called interpretations. These not-quite-words—signalling sounds we haven't heard yet—are crystal balls offering predictions which are sometimes verified, sometimes are not. The formula, unused, is a *possible*, that will be 'true' or 'effective' at the time it will be used. When unverified (and we say unverified, as if there was no real error but only a temporary failure), it can either indicate that it isn't *quite right*, or that resolution remains pending. Answers are only ever approximations, within our limits of accuracy.

As we pour in our words and formulae, the dynamical knowledge we have of the world, our experience, our *being-to the world* changes: we used to think in terms of up (when looking at the sky) and down (sailors being afraid that they might fall off as they approached the edge of the Earth). Of course we still think of *up* as *away from*

the ground, in relation to the center of the Earth. But these notions of up and down have slightly shifted. Hito Steyerl argues that:

Our sense of spatial and temporal orientation has changed dramatically in recent years, prompted by new technologies of surveillance, tracking, and targeting. One of the symptoms of this transformation is the growing importance of aerial views: overviews, Google Map views, satellite views. We are growing increasingly accustomed to what used to be called a God's-eye view.⁶

And so our experience of the *mundus* is continuously changing..

Philosophers of mathematics ask, Is mathematics inherent to the world, or is it a creation of the human mind, a grid we place over the world? In Nancy's terms, might it be both: mathematics *structured as sense, and reciprocally, sense structured as mathematics?*

I'm at the membrane again: between the world, emanating, flowing out what is perceived as sense, and us, filtering it.

⁶ 'In Free Fall: A Thought Experiment on Vertical Perspective - Journal #24 April 2011 - e-Flux'
<<https://www.e-flux.com/journal/24/67860/in-free-fall-a-thought-experiment-on-vertical-perspective/>> [accessed 13 April 2019].

So, what are measurement units? An interaction between what we contribute and what we discover. In our endless quest for accuracy, we build up, find out, continuously filling the treasure chest—“*building upwards from foundations anchored in standards and using the language of maths to give form.*”⁷

As we abandon Grand K, we abandon the idea that terms must have precise and unchanging definitions and that it is those definitions that fix their reference. Instead it is a “*combination of theories and experiments that tell us what our terms refer*”⁸ to and not unchanging definitions.

Since the results of experiments are strongly intertwined with our surroundings, we can argue that terms have their reference fixed by the environment itself. In the case of the Grand K, by a constant of nature: the Planck constant.

Constants of Nature: Ghost in the shell? With the death (or sublimation) of the last artifact, all our standards have melted into universal constants. We passed from a solid state society to the cloud of an open source community.

⁷ Comments Martyn Ruks (MPhys).

⁸ Philosophy Overdose, *Hilary Putnam on Meaning & Externalism*
<https://www.youtube.com/watch?v=y_a0ANCypGw>
[accessed 6 April 2019].

And so it is the combination of theories and experiments that feed our terms and tell what they refer to, not unchanging definitions. The words we adopt and use have their definition fixed by the environment itself and not simply by “*what is in our head*”.⁹ Maybe only one key—consistency—is needed after all.

⁹ Philosophy Overdose, *Ibid.*