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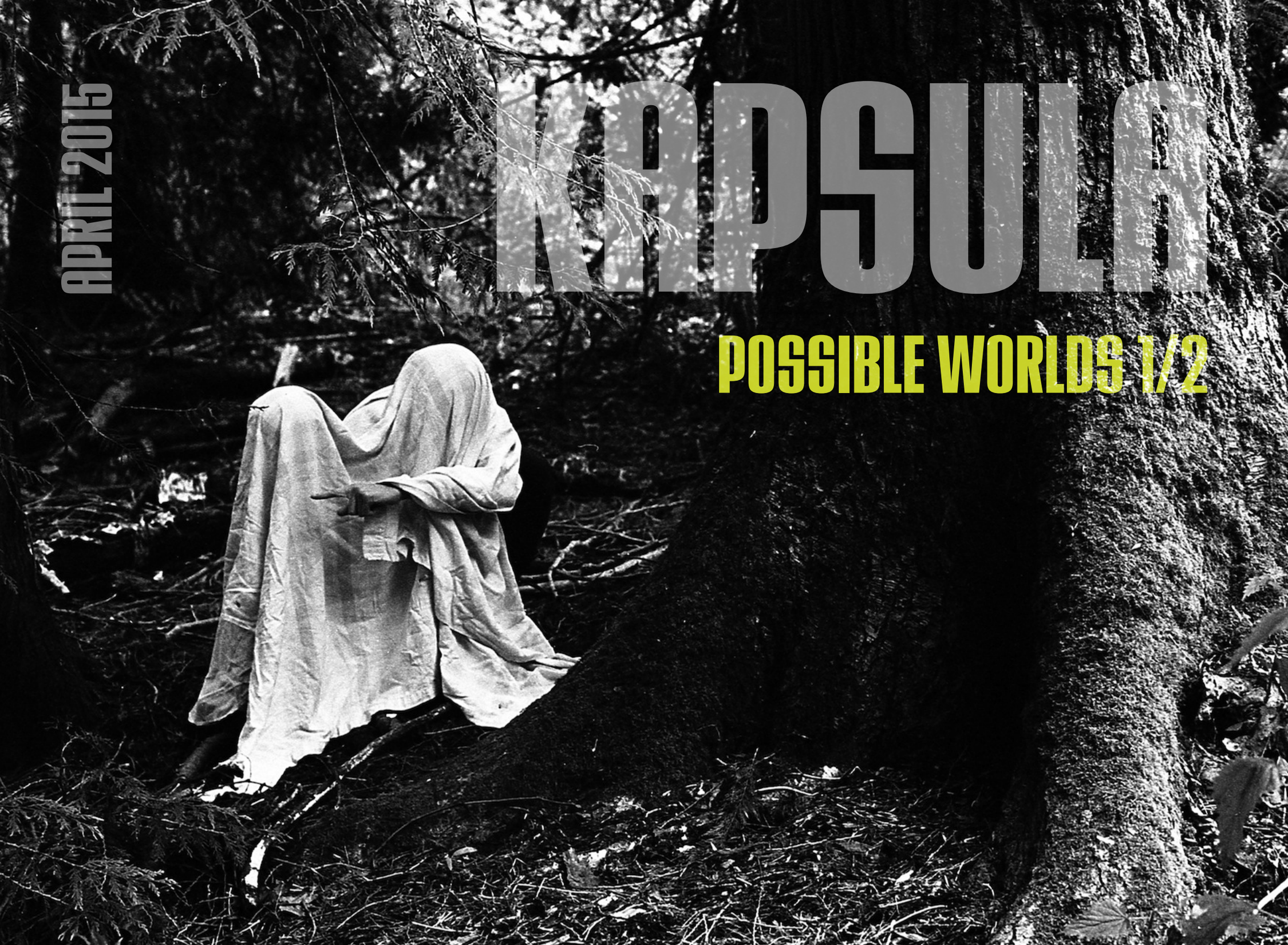
KAPSULA

POSSIBLE WORLDS 1/2



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I Will Go Into the Field and be Buried with the Corn
2012
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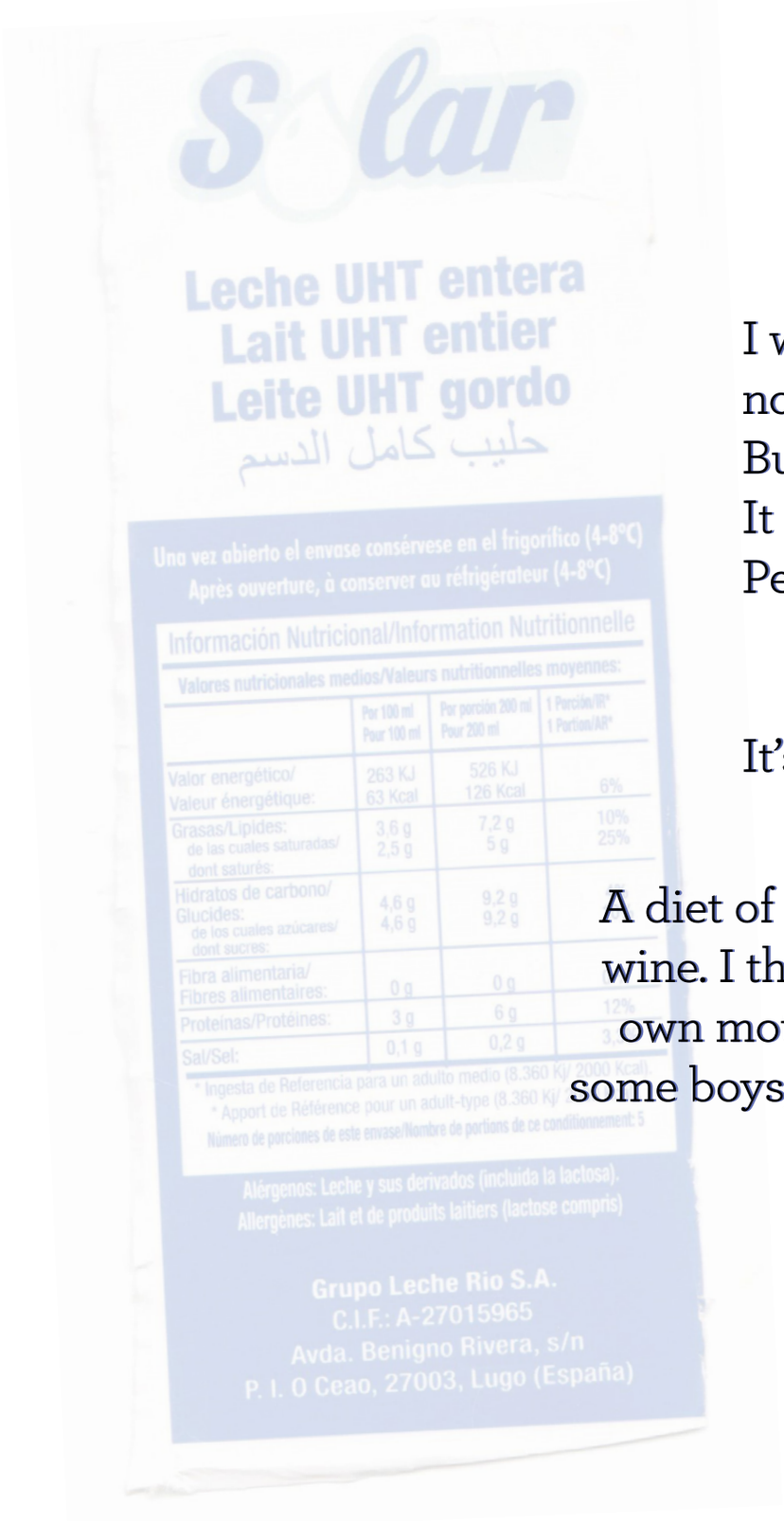

I want you to suddenly appear, seemingly out of nowhere with an avocado and cold Budweiser.
But I can still hear that god damn alarm clock.
It is blinking.
Pervert. Poser. Pervert. Poser.
Pervert. Poser. Pervert. Poser.

It's hard to wake up to the truth.

A diet of salmon and avocados and an abundance of red wine. I think I was put off by her physical likeness to my own mother. I suppose that sort of thing would do it for some boys, but I have premonitions of closed eyes during sex and awkward glances at the dinner table.

SPANISH MILK

by **Anthony Meadows** (2014)

Everything that may be

Reality is not always probable, or likely.
Jorges Luis Borges in Columbia University Forum Vol. 1 (1971)

In imagining possible worlds, one falls into the practice of storytelling—the act of describing what was, what is and what could be (preferably all at once). Reality plays an important role in each story told, acting as the drawing board. A fiction will always show traces of the real, responding to the conditions of existence, moving with or against. In the same way, non-fiction gestures towards the imaginary in its mimetic representations of reality. Our writers find the impossible task of distinguishing real and imaginary, fiction and non-fiction to be a productive, even necessary dilemma. Though there can be nothing more satisfying than drawing a line, sometimes it can feel even better to draw four.

The confusion around what constitutes reality may arise from the complicated relationship of another structural pair: time and space. For the assumed singularity of time and space, the elemental parts of any conceived reality or non-reality, disallows the simultaneity of real and imaginary worlds. Our exploration of possible worlds begins with acknowledging multiplicity—that we are not simply discussing fictions, fantasies, and imaginaries but different modes of existence that overlap with our own. More than holding potential to be multiple, time and space operate exclusively in the plural, extending far beyond our immediate experience. The sentiment sounds all too familiar. Yet how easliy what happened yesterday evokes a memory of tomorrow.

So time and space have been and will become liberated from linear, three-dimensional conceptions of reality. But what about storytelling? The structure of narrative protests the multiplication, unsure of how to respond to so many worlds at once. Fiction and non-fiction bleed even further—reality has authored fictions of itself, and no one knows which version to trust. The texts that come before and after attempt to ballast storytelling in its age of crisis, maneuvering multiple temporal and spatial dimensions at once. Maybe the plural world lacks an origin story: the beginning of being and experience in more than one dimension. The subjective account, the iterative "I" clones itself in an effort to accommodate. When we shift from one dimension to another, our sense of *being* changes, illustrated by stories of unknown territories.

Exploring all possible worlds not only implicates one's understanding of self, but place as well, as space that's been built up by body and language. Time and space aren't all that exist anymore. Here, in these constructed spaces with constructed meanings, we recognize a neatly fitted narrative sequence—the telling of history. Like anything else in the plural universe, simulations of place project onto what used to be called the real, forming hyperreal versions of the same. When the imaginary shapes the real, fiction becomes non-fiction and the story gets all out of order. The dominant order, or the dominant narrative, gives way to the force of many. In an effort to persist through the disorder, the story fragments itself, coming together from texts of disparate positions.

Jorge Luis Borges says: "Reality is not always probable, or likely." Indeed, the assumed radicalism of possible worlds might have been lost with linear time and fixed dimensions. Now it seems more radical to describe reality with any sincerity or assuredness. The improbability of reality claimed by Borges reflects our belief in moving forward, scientists, architects and writers alike, attempting to prove our hypothesis of everything that may be. We ask you, our trusted readers, to listen to our stories knowing that, in another dimension, all the words sound totally different.

My everyday thoughts are occupied by those I love.

Alongside thoughts of sex. Made up love affairs.

The New Year is nearly upon us and I find myself in an all too familiar situation. No money. No car. A girl I cannot trust. And no place to call my own. The only things missing are my wisdom teeth and a fuller head of hair. I'm finding this difficult. Not difficult like playing an instrument or driving a motorized vehicle. Difficult like attempting to finish a game of Monopoly.

A diet of propolis, garlic, ginger, and painkillers. I will be better in no fucking time. According to my ex-wife we were never married. But the breakup feels like a more than tragic divorce. Go back. A direct result of a diet of cocaine and organic cow's milk, I've decided to Astroturf the deck. I'm interrupted by a Spanish girl with a Spanish lisp inquiring about a cappuccino. It would seem that I have proved myself right by proving myself wrong, but the fat girl doesn't seem to understand that I do not want to be friends.

I welcome death under the Catalonian sun.

But with that being said, there are certain things that I wouldn't mind doing. Like sex. Or having a cup of coffee and maybe a snack from Dunkin Donuts. And finding a paper with a horoscope hidden somewhere in its pages, then getting really pissed off when I can't read it.

COLIN CAMPBELL

Ouspensky's Queer Space-time

and the Fourth Dimension as the Iterative "I"

The difficulty here is the mistaken assumption of a classical ontology based on a belief in a world populated by independently existing things with determinate boundaries and properties that move around in a container called "space" in step with a linear sequence of moments called time. But the evidence indicates that the world does not operate according to any such classical ontology (Barad 2012, 43).

The concept of a higher or another dimension is one of those classic science-fiction tropes that appears, like an unidentified flying object, to be without any pre-modern history or precedent. The notion of the metaphysical higher or lower world, in German the *hinterwelt* ('world behind'), is probably as old as humanity itself, and at least as old as shamanistic out-of-body experiences. [1] Popular myths of the metaphysical plane refer to specialized discourses, mystical languages or ways of using language, involving deep reflection on the nature of the world as it appears through experience. In this sense, science fiction creators work in a long and popular tradition of cribbing ideas for stories from the wizards of knowledge, borrowing the mathematical notion of dimension as the image or idea of metaphysical experience.

Perhaps what *is* unique about the modern context is that prevalent scientific terminology seems directly anathema to metaphysical experience. Before modernity, forms of respected and operative knowledge still conceived a world above which was an immaterial realm, an essence beyond material reality and yet somehow accessible to experience. Never before in history has a belief in the world we sense and measure been more exclusive, as the scientific worldview of Descartes, Galileo, Bacon and Newton has largely become our Global Common Sense (GCS). According to widely accepted scientific definition there is no other dimension in the sense of a quintessential realm, heaven or hell,

or a *hinterwelt*. When modern science refers to its three dimensions, it suggests that we can measure three perpendicularly arranged axes in three-dimensional space—length, height and depth—and that's *all there is*. In other words, according to GCS it is possible to draw three lines that are perfectly perpendicular to each other and not parallel. Travel to somewhere not in this universe of three dimensions falls into categories of entertainment and fairy tales, at best; at worst, it smacks of new age babble or mental illness. Nevertheless, among the startling implications and discoveries of twentieth century science, ones as yet suppressed from popular knowledge by the historically unparalleled force of GCS, there lies the possibility of dimensions beyond the comprehensible three. Science, not myth, indicates the possible existence of these—even their necessity.

GCS has provisionally accepted 'string' theory, which takes up the problem of multiple or even infinite dimensions, but at the price of insisting that this bears no direct relation to anything we could ever experience.[2] Similarly, Einstein helped popularize the notion that time is the fourth dimension, and unified with the other three spatial dimensions as space-time. However, the idea has not resulted in much experiential substance for GCS. In general, theories like Einstein's relativity, quantum theory, and cybernetic systems theory appear to GCS to involve queer notions of time. They suggest that time, rather than being a single line moving from past through present to future, operates as a complex web or lattice where multiple pasts can return as futures, past and future intersect in an unusual way, and the notion of present expands. Einstein further insisted that time was not separate from space but part of a unified field of space-time. Again, the partisans of GCS understand abstractly that Einstein unified space and time, but this union remains strange and inaccessible to experience.

Most startling about the new conceptualization of space-time, gingerly avoided by mainstream science, is what it implies for the experience and reality of subjectivity, the self. The startling or even traumatic nature of this experience of self, one utterly alien to the GCS, has forestalled greater understanding of a new sense of time, consigned it to 'new age' fringes of culture and the psychedelic revolution. So perhaps it is no surprise that in twenty-first century America, the great cathedral of GCS, contemporary practitioners of space-time and its revolutionary impact on human self-understanding have also received the brand 'queer.'

This essay describes the 'queer' (not homosexual in the literal sense, but I think not traditionally heteronormative either) theory presented by early twentieth century Russian writer P. D. Ouspensky, which I believe shows with unparalleled clarity the experiential implications of the 'unified field' theory of space-time. I show a kind of queer kinship between Ouspensky's thought and an entire underground twentieth-century tradition in science that seems to have quieted since the 1960s, but finds newly coherent and relevant contemporary expression in queer and-or feminist theorists such as Judith Butler, Donna Haraway and Karen Barad. The new sense of time I speak to radically alters sense of self, decenters the subject, and produces a plural and self-remembering subjectivity in place of the monolithic self-identical subject characteristic of the patriarchal West.

In her "Cyborg Manifesto," Donna Haraway asks: "What kind of politics could embrace partial, contradictory, permanently unclosed constructions of personal and collective selves and still be faithful, effective and, ironically, socialist-feminist?" (Haraway 1991, 157) The queerness of Haraway's science-theory lies not only in its overt formulations about sexuality, but in the specific way that it brings the focus of theoretical cognition on *self and experience* into the space of science, the domain of power-knowledge currently dominated by doctrines amenable to GCS. Her focus on self and identity is precisely what is rigorously excluded from GCS-authorized accounts of the meaning of quantum and relativity theories.

While the core problematic of Judith Butler's 1997 *The Psychic Life of Power*—briefly, how does a subject which does not yet exist respond to a call of power-knowledge that brings her into being in the first place?[3]—could be quite directly linked to the queer behaviour of lightning, the atom's performativity, and more generally to the problem of causality and observation that is central to quantum and relativity theories. Butler's work, along with Hegelianism and Foucaultianism *in toto*, has so far been consigned to the humanistic, cultural and literary side of the great disciplinary divide. In general we have seen the continuing and intensifying

relegation of subjective concerns to the side of "non-science" (perhaps nowhere more spectacularly than in the infamous "Sokal affair" of 1996). We have seen this *blind disciplinary relegation of subject and object* to 'where they belong' practiced with abandon by way of GCS, which ironically is no less inconsistent with science than theories of phlogiston and a flat earth.

In agential realism, and specifically in concepts like spacetimemattering, Karen Barad vividly draws out the human implications of natural science as something immanent to the field—something as "objective" and "real" as it is concerned with the nature of gender and the self. Barad's work reinforces the fact that the aim was (and is) never to take a 'humanistic' by-way of Foucaultian post-structuralism or continental philosophy, but rather to directly extend the most important scientific discoveries of the twentieth century from within. Thus the aim will be not merely to interpret power-knowledge and GCS, but *to change them*.

My interest in Ouspensky stems from the fact that he, along with a number of other 'minor' and/or queer figures in twentieth century science,[4] shows striking commonalities with Barad's bold new forays. Indeed, we might look at agential realism as the voice of a whole suppressed tradition of reflecting on the implications of modern scientific research for the self and experience. What has been suppressed in mainstream accounts of quantum and relativity theories is precisely that which concerns both Ouspensky and Barad: what do these theories mean for our *experience* of the world? How can we see, hear, feel or touch these meanings? Mainstream accounts often suggest that quantum theory and the uncertainty principle only have meaning at the abstract levels of the microscopic or cosmic-macroscopic. Ouspensky, much like Barad and Haraway in this respect, begs to differ. I would like to place Ouspensky in a kind of rhizomatic non-family-non-tree with queer feminist science.

Kant's Discovery & the Positivist Impasse

Ouspensky's magnum opus, *Tertium Organum* (posing ambitiously as a sequel to Aristotle's and Bacon's respective seminal works *Organum* and *Novum Organum*) uses analogies and imagery to convey often-neglected aspects of the modern scientific understanding of nature. Much like post-structuralism and post-modernism, Ouspensky's work is indebted to Kant's formulation of the problem of knowledge and experience. Indeed, holding up the ideas of Barad and Ouspensky alongside others of the minor tradition in twentieth century science one can see a common orientation in Kant's differentiation of *noumenon* and *phenomenon*:

> Kantian idealism recognizes a world of causes outside of us, but asserts that we cannot know the world by means of sensuous perception, and everything that we perceive, generally speaking, is of our own creation—*the product of a cognizing being*. So, according to Kant, everything that we find in things is put in them by ourselves. Independently of ourselves we do not know what the world is like. And our cognition of things has nothing in common with things as they are outside us—that is, in themselves (Ouspensky 1969, 12-13).

The phenomena, Kant famously argued, consist of all that we ever experience through our senses. The *phenomena*, taken as an ensemble, form the world we experience inside and outside our skin. The *noumenal*, on the contrary, is the metaphysical properly speaking, all that we do not sense or experience but which must be presupposed in order to explain what we experience. The noumenal realm, which twentieth century physicist David Bohm has called "the implicate order," (Bohm 1980) contains all those invisible and intangible aspects of the universe that have important visible or sensible *effects*, notwithstanding their invisibility or insensibility *as causes*.

The power of Kant's formulation, which for Ouspensky makes him "impossible to controvert," (Ouspensky 1969, 15) lies in its negativity. In focusing on what we do not know, and particularly what we know we do not know, we gain a powerful tool for the continual reduction of errors due to wrong mapping. It is not that we can say a realm beyond the senses exists; it is that we know, through the passage of experience itself, that we do not experience everything that exists—or at least, not all at once, not while we're alive. We

might say, speaking broadly, that voices of the minor or rhizomatic tradition in twentieth century science-theory have attempted many times to remind the prevailing scientific mindset, hypnotized as it is by doctrines of positivist empiricism still guided by the general terms laid down in Bacon's 'new' organ, of the incontrovertibility of the 'new new' doctrine of uncertainty given form in Kant's writing. As Ouspensky puts it:

> Positive philosophy stands in a very ambiguous relation to Kant's views. It accepts them and it does not accept them: it accepts, and considers them correct in their relation to the direct experience of the organs of sense—what we see, hear, touch... When it concerns itself with "scientific experience" however, in which precise instruments and calculations are used, positive philosophy evidently considers Kant's view in relation to that invalid, assuming that "scientific experience" makes known to us the very substance of things, the true causes of our sensations—or if it does not do so now, it brings us closer to the truth of things... [I]n other words, they *believe* exactly in the possibility of what Kant denied—the comprehension of the true substance of things by means of the investigation of phenomena (Ouspensky 1969, 15).

Ouspensky, carrying forward Kant's trenchant insight into the uncertainty of knowledge, calls out the positivistic scientist for his lack of "sufficient courage to declare that *he believes in nothing at all*,"

> ...he accoutres himself in all contradictory theories, as in an official uniform, only because with this uniform are bound up certain rights and privileges, outer as well as inner, consisting of a certain confidence in himself and is surroundings, to forego which he has no strength and no determination (Ouspensky 1969, 16).

Calling out the contradictions of positivism in a Kantian vein, however, is only the beginning of Ouspensky's 'new new organum.' Ouspensky does not, as may be anticipated by post-modern critics of scientific discourses, aim at a new or more comprehensive regime of truth in science, nor to restore the moribund Western Subject. Rather, he aims at what Derrida might have called the deconstruction of logocentric subjectivity. In other words, he will carry forward a new Kantian theory of knowledge into a radically new theory of experience and subjectivity, toward something queerly like that "permanently unclosed construction of personal and collective selves" formulated by Donna Haraway.

Space-time and the Dimensions of Experience

One of Ouspensky's primary points of focus in *Tertium Organum* is the scientific and mathematical formulation of a fourth dimension in space. GCS accepts that Einstein and other modern physicists have, for purposes of convenience, called the fourth dimension 'time,' and that Einstein referred to 'space-time' as a unified field in his theory. But GCS tells us the effects of this unity of space and time can never be experienced by a living human body. GCS can accept that at astronomical distances and speeds the difference between space and time breaks down. We hear that extra-ordinarily steep curvatures of space-time such as black holes can lead to noticeable distortions of spatio-temporal existence. GCS might even accept that everyday experience of the Earth's gravity is the result of a curvature of space or space-time—yet this does not change the fact that for GCS gravity is practically and wrongly identified with an electro-magnetic force, because of a disbelief in the notion that the 'empty space' imagined by Newton is an entity that could be curved.

Ouspensky argues that Einstein and modern science need to unify space with time, not only superficially or under special circumstances but more generally, to consider space and time as similar and comparable in some fundamental sense. To make this palpable and clear in a more than abstract way requires recourse to analogy—in short, because it is very difficult for us to imagine time as having existence like space, as being 'perpendicular to space.' Using an ingenious, if not original mathematical thought experiment, Ouspensky indicates what we cannot presently experience by extrapolating from what we can and do.

"O day and night, but this is wondrous strange"

A ROMANCE
OF MANY DIMENSIONS

By A Square

LONDON
SEELEY & Co., ESSEX STREET, STRAND
Price Half-a-crown

"And therefore as a stranger give it welcome"

In E.A. Abbott's imaginative science-fiction parable, *Flatland: A Romance of Many Dimensions* (1884) we see an earlier form of Ouspensky's experiment demonstrated in rigorous narrative fashion. Nearly one hundred years later, Carl Sagan would perform his own version of the experiment for a television audience.[5] For Ouspensky, the Kantian problem of the *noumena* calls for an inquiry into dimensions beyond the three that we experience directly. Quoting extensively from another mathematical-dimensional pioneer, C. H. Hinton, Ouspensky argues that the true inheritors of Kant are not Hegel and Fichte, but the mathematicians Gauss and Lobachevsky.

In mathematical terms, when we say the world has three dimensions it means that it is possible to draw three perpendicular lines in our perceptual space. In four-dimensional space, it would be possible to draw a fourth line, perpendicular to the other three. The same would hold true respectively for spaces of five, six or more dimensions—five, six or more perpendiculars:

> Through a given point it is possible to drawn only three perpendicular and not parallel straight lines. Upon this as a basis, we define the *dimensionality* of space by the number of lines it is possible to draw in it which are mutually at right angles one with another. The line upon which there cannot be a perpendicular, that is, *another line*, constitutes linear, or one-dimensional space. Upon the surface two perpendiculars are possible. This is superficial, or two-dimensional space. In "space" three perpendiculars are possible. This is solid, or three-dimensional space (Ouspensky 1969, 23).

However, "mathematics does not feel dimensions... it is impossible to express mathematically the difference between dimensions." (Ouspensky 1969, 65) We can mathematically describe a world of any dimensions, many more than three, but only embodied experience gives us the incomparable experience of up and down, left and right, forward and backward that constitutes three-dimensionality. It is precisely the fact-like quality of this three-dimensional experience that GCS takes as evidence that the three dimensions are all that exist.

Echoing Kant's criticism, however, what this experience shows for Ouspensky is *not* the facticity of the three-dimensional world, if by facticity we mean 'certainty of existence.' Indeed, Kant's very discovery (echoed by Hume) is that facts are an aspect of the phenomenal world about which we cannot be empirically certain. Rather, we must accept that our perception in terms of three spatial dimensions with time added is something put in the world by ourselves. We cannot directly perceive time as a fourth dimension of space, but a little help from mathematics—E. A. Abbott's enthralling mental experiment, reiterated by C. H. Hinton and Carl Sagan—provides the key to opening our imagination, perceiving time not as something added to space or outside it, but a spatial dimension in itself. In other words, Ouspensky is inviting us to consider time as an 'impossible' fourth perpendicular of space, which transforms the three-dimensional cube into the four-dimensional hypercube or tesseract.

Pointland, Lineland, Flatland, Spaceland, Tesseract

To help us imagine the tesseract, Ouspensky takes us stepwise on a trans-dimensional journey, beginning in worlds with fewer dimensions than our own. At each stage he asks the question that remains taboo for GSC: what would it be like to experience such a world? In asking us to imagine the limits of that experience, Ouspensky richly evokes the limits of our three-dimensional experience of the world.

(1)

Ouspensky does not spend much effort in Pointland (also the land of the black hole). In a world of zero dimensions nothing ever changes or happens and there are no entities, or the whole universe is one single entity. However if we, the point-being, were to gain just one degree of freedom, if we could scan backward and forward along a line, we would be setting off on a journey in Lineland:

> Let us imagine a world *of one dimension*. It will be a line. Upon this line let us imag-

> ine living beings. Upon this line, which represents the universe for them, they will be able to move forward and backward only, and these beings will be as the points, or segments of a line. Nothing will exist for them outside their line—and they will not be aware of the line upon which they are living and moving. For there will exist only two points, ahead and behind, or maybe just one point ahead. Noticing changes in states of these points, the one-dimensional being will call these changes *phenomena* (Ouspensky 1969, 51).

All the phenomena are absolutely identical in this one-dimensional world—either the disappearance or appearance of another point behind or ahead. We or the 'point' ahead of us might well be a line segment and not merely a point, but because the world is a one-dimensional line, we will never know it. In a one-dimensional world, we can't see around anything, as it were. We only ever see a point and only imagine seeing ourselves as a point. Nevertheless, over the course of time, with the mysterious appearance and disappearance of points ahead and behind, we become aware of something we call 'time.' Points that once existed appear later to be gone; new points emerge which appear not to have existed before. We assume that what was past is gone and what lies in the future is yet to come.

We will never know if the points we encounter along the way result from *the passing of our scan line* across a surface-structure of two dimensions, moving perpendicular to the one dimension that limits our experience. We'd feel any part of the structure the line had already scanned as *a point no longer exists*, and any that the line scans toward as a point that *will exist*. We would not perceive that our one-dimensional view was preventing us from seeing that 'past' and 'future' points still do exist on the two-dimensional surface, merely in a place other than the scan-line in which we are currently trapped.

(2)

If we, thus far a point-being, could by some gift of the cosmos suddenly perceive ourselves to be a line, we could set off once more on the interdimensional journey, gain yet another degree of freedom by now moving perpendicularly to the original scan line (itself constructed by moving back and forth from the original zero-dimensional point). We would then be tracing a surface, a world of two dimensions, Flatland. Similarly to the point-being arriving in Lineland, as line-being we have a new degree of freedom in Flatland, but we still cannot perceive what a three-dimensional being would be able to see looking down upon the plane. Rather, trapped in the plane, we see our self and encounter others only as edges, lines:

> Let us next consider the two-dimensional world, and the being living on a plane . . . First of all we can affirm that he will not feel the plane upon which he lives . . . The lines will differ from the plane in that they produce sensations; therefore they exist. The plane does not produce sensations, therefore it does not exist....
>
> But gradually, by a process of reasoning, the two-dimensional being will come to the conclusion that the figures he encounters exist *one something*, or *in something*. Thereupon he may name such a plane (he will not know, indeed, that it is a plane) the "ether." Accordingly he will declare that the "ether" fills all space, but differs in its qualities from "matter." By "matter" he will mean lines. Having come to this conclusion the two-dimensional being will regard all processes as happening in his "ether," i.e., in his space (Ouspensky 1969, 53).

Notably, at each stage of development, Ouspensky's beings are incapable of seeing the fullness of an existence that becomes visible only with a higher degree of freedom. Because a being in three-dimensional space could rise above the surface of Flatland, in a direction perpendicular to both its width and length, she would see the full two dimensions of the surface-beings where they would only see each other as lines. Just as we imagined the point being incapable of sensing its Lineland as scanning across a spatial surface, which it therefore believes to be time, we can imagine the line-being as incapable of sensing its Flatland scanning 'slices' through a three-dimensional volume. The third dimension, then, could only appear to the plane being as time:

> Therefore, though not conceiving the form of his universe, and regarding it as infinite in all directions, the plane being

will nevertheless involuntarily think of the past as situated at one side *of all*, and of the future as somewhere at the other side of this totality. In such manner the plane being will conceive of *the idea of time* (Ouspensky 1969, 57).

(3)

And so Ouspensky, coming to his crux, notes that at each dimensional stage, time appears as the limit of a being's capacity to sense space. Time appears as the passage of a scan through a spatial context that is one dimension greater. A kind of GCS operates on each dimensional level (line, plane, volume) as a separator function, shunting the invisible spatial dimensions out of space and into temporal experience.

The scan-line crosses the surface. The slice-surface passes through the volume. His imagination catching fire, raising his sling against the Goliath of GCS, Ouspensky asks: *What is it that the volume-scan is passing through?*

> We are going forward like a blind man, who feels paving stones and lanterns and walls of houses with his stick and *believes* in the real existence of only that which he touches *now*, which he feels *now*... The blind man remembers the route which he has traversed; he expects that ahead the way will continue, but he sees neither forward nor backward *because he does not see anything*; because his instrument of knowledge—the stick—has a definite, and not very great length, and beyond the reach of his stick non-existence begins (Ouspensky 1969, 35).

Ouspensky employs analogy and thought experimentation because it allows him to give abstract mathematical formulations palpable meaning. In his analogies we gain a sense of precisely what Einstein meant by compounding space-time as a fourth dimension. As Ouspensky notes, "... we can say that the direction of the movement in the fourth dimension lies *out of all those directions which are possible in a three-dimensional figure.*" (Ouspensky 1969, 29) This direction, perpendicular to the three that are accessible through sense perception, scans the world holographically, 'setting off' from the world of three dimensions just as our original point-being 'set off' from itself to form the line:

> The four-dimensional body is the infinite number of three-dimensional bodies. That is, the four-dimensional body is the infinite number of *moments of existence* of the three-dimensional one—its states and positions. The three-dimensional body which we see appears as a single figure—one of a series of pictures on a cinematographic film as it were (Ouspensky 1969, 45).

The past and the future, in other words, do not disappear from existence as we imagine—they merely pass into a region of space-time inaccessible by our limited 'volume scan' of the tesseract-space. They are still there.

At first glance, it might seem that Ouspensky's model of time leads to determinism, in that all change and motion are merely an illusion of a scan moving through a fixed structure. However—and at the point analogy really reaches its limit—the total space-time field through which the 'volume scan' does not exist as a static entity, because precisely what we call a 'static entity' would be an object limited to three dimensions. So, though Ouspensky claims the past and the future exist 'alongside' the present and affect it in ways GCS cannot imagine, he is in no way a determinist. The tesseract-structure contains all potentialities of all times and spaces, but they are not laid out in anything we could imagine as a fixed order:

> As a matter of fact, in reality our relation both to the past and to the future is far more complicated than it seems to us. In the past, behind us, lies not only that which really happened, *but that which could have been.* In the same way, in the future lies not only that which will be, *but everything that may be* (Ouspensky 1969, 38).

It is at precisely at this point that GCS will step in and insist that, notwithstanding these incontrovertible discoveries, in everyday existence, in fact in any existence in which our body could survive, the relation between time and space will remain essentially consistent with the Newtonian principles of matter-in-motion. Of course a singularity like a black hole

may be theorized as a collapse of a segment of three-dimensional volume into the "implicate order." Travelling at near light-speed relative to another object, my size will change relative to the other object and time will pass differently. But apart from extreme cases, the experience of which nobody would survive anyway, GCS would like to reassure us that the basic Newtonian principles of three spatial dimensions with an added dimension of time are necessary and unavoidable.

The Queer Thing About Subjectivity

Ouspensky and others in this minor rhizome of twentieth century thought—a non-tree which nevertheless spreads and speaks to the whole edifice of power-knowledge, both of the era and of our own—realize that black holes are not the only singularities in this universe. Life is also a singularity; living beings are forms-in-time. Frozen or petrified, they would not be not what they are. Their present three-dimensional volume scan is a manifold of all the organism's past experiences and, in conjunction with the environment, of all it will experience until death. "The child is the father to the man," or "from the acorn grows the oak tree." And there is no queerer being, in terms of the three-dimensional volume scan, than the humble human subject. For the human subject, much more than other living beings, seems unusually well-equipped to keep comparative records of that volume-scanning process she calls time, myth, history, archaeologies of knowledge. She is able to come to terms with time as the result of a constitutive limit of her sensory apparatus, and therefore able to speak the truth to power-knowledge. Butler elaborates in *Psychic Life of Power*:

> If conditions of power are to persist, they must be reiterated; the subject is precisely the site of such reiteration, a repetition that is never merely mechanical. As the appearance of power shifts from the condition of the subject to its effects, the conditions of power (prior and external) assume a present and futural form. But power assumes this present character through a reversal of its direction, one that performs a break with what has come before and dissimulates as a self-inaugurating agency. The reiteration of power not only temporalizes the conditions of subordination by shows these conditions to be, not static structures, but temporalized—active and productive. The temporalization performed by reiteration traces the route by which power's appearance shifts and reverses: the perspective of power alters from what is always working on us from the outside and from the outset to what constitutes the sense of agency at work in our present acts and the futural expanse of their effects (Butler 1997, 16).

What does Butler mean by "the temporalization performed by reiteration"? She draws our attention, queerly like Ouspensky, to the nature of our experience of self as something discontinuous, or even non-existent, whose continuity through time is only constituted in a complex reiterative or cyclical process. This minor rhizome tells us that the self is, in fact, rhizomatic—it is one-thousand plateaus (or are they abysses?) and above all, it is not one thing over time. The experience of the self, itself, as something that persists while always changing, indeed as what may seem the only fixed point in a world of change, lies in the fourth dimension. In the self we experience the fourth dimension 'as if' by our senses—by our 'inner sense.' If we look with our undivided and unconfused attention, if we do not forget the 'incontrovertibility' of Kant, we find that we contain many little selves or aspects of self within us, never just one, never one final whole. To *identify* with one of its many iterations reduces the self to one frozen volume-scan in the queer tesseract of experience:

> 'Identifying' is one of our most terrible foes. It is necessary to see and to study identifying to its very roots in oneself. Identifying is the chief obstacle to self-remembering. A man who identifies with everything is unable to remember himself. In order to *remember oneself* it is necessary not to *identify*. But in order not to identify a man must first of all not be *identified with himself*. He must remember that there are *two* in him, one that can only observe at first and another that takes charge of him at every moment and speaks in his name and calls itself 'I'. [6]

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Image

Cover image of Edwin A. Abbott's *Flatland: A Romance of Many Dimensions* (1884)

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Twenty minutes I've been awake.

Twenty minutes I've been thinking of that little boy... who was he??

On board my grandfather's boat, attempting to lift the deck in rhythm with the crashing waves. We knew something would go wrong.

His motor skills were astonishingly advanced for his age, and though there were dozens of float compartments he could have escaped to, the corner of the deck came down on his

fragilehead.

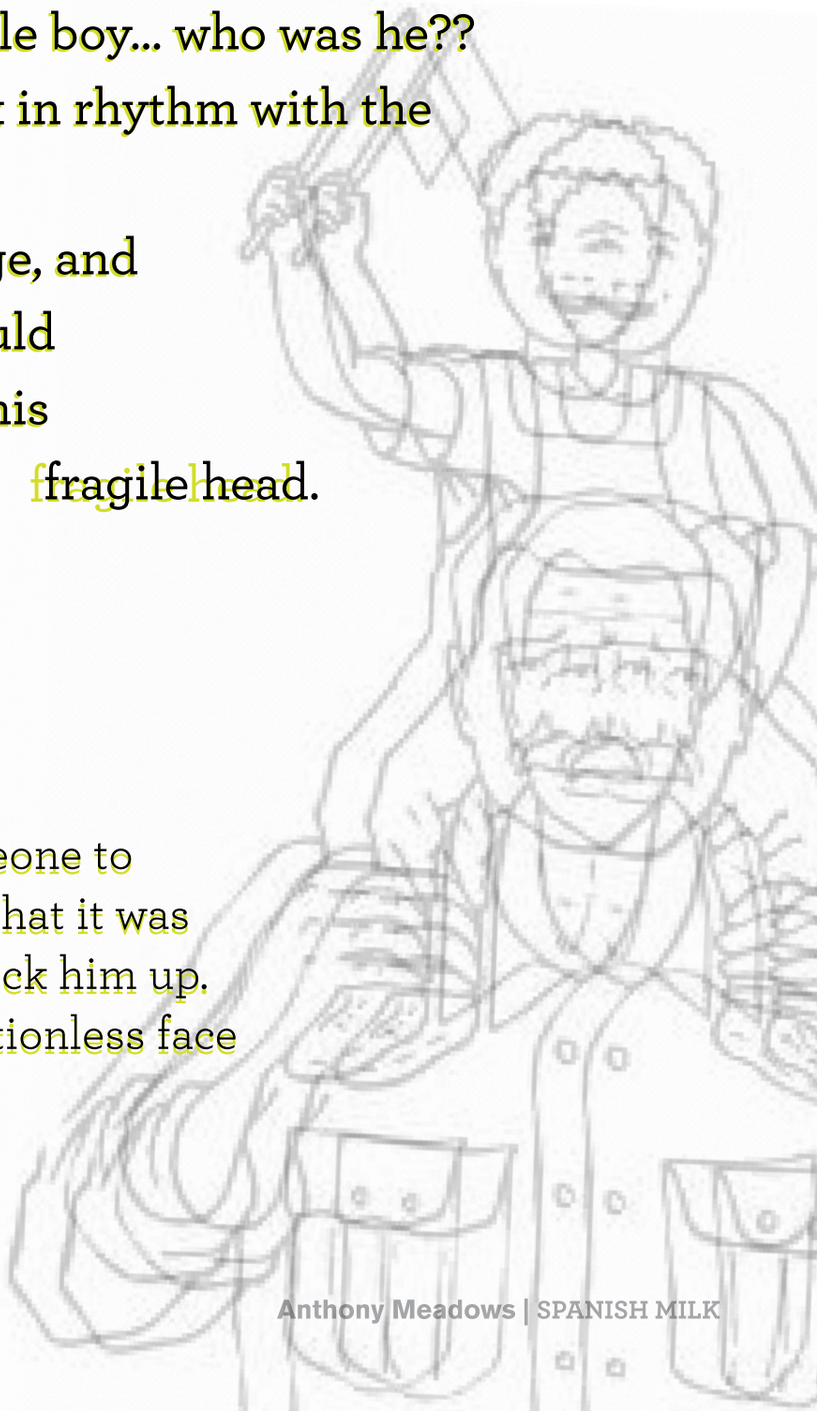
We weren't strong enough

to keep it elevated against the weight of the waves.

He seemed ok, slightly stunned.
He made it one or two feet before collapsing.

I could feel the tears building as I cried for someone to phone an ambulance, even though I knew very well that it was already too late. My first instinct was to pick him up.
But I only held his infant hand as I watched his emotionless face slowly turn black and blue,

his eyes glazed with fear of the unknown.



THE METROPOLIS + OTHER MYTHS

WILLIAM MARTIN

The city of Brüsel does not exist. It is an obscure city. In fact, it is but one of nearly a dozen unknowable cities that occupy an entire continent of an autonomous world parallel to our own. Despite its obscurity, a considerable amount has been written about this world. A full and deep drama of history, geography, culture, money, and power play out across the territories of this continent of hidden, unknown cities. The drama is documented in a series of French language comic books titled Les Cités Obscures. American publishers translated the title of the series as "Fantastic Cities," but this translation is misleading. Brüsel is too believable to be fantastic—too impenetrable, too specifically vague. One gets the sense that they have been there before; the city almost feels real. This is because of its uncanny resemblance to the "real" city of Brussels, Belgium. Brüsel hosts many of the attendant icons, the Palais du Justice, the river Senne, the old world urban informality. But perhaps it is the city's impulse towards Modernization that is most strikingly consistent. These resonances give Brüsel the contours and the texture of reality. On the other hand, the city's impossibility makes it unreal. It is something categorically different than a city or even a representation of a city. It is evidence of a certain other. Brüsel, in other words, is not the fictional city or the real city, it is the mediator between the two. It is translation with interference, the aura of Benjamin and obtuse, third meaning of Barthes.

If Brussels is a legible text of modernization, evidencing the triumph of bureaucratic state ambition (European unification/ democratic and parliamentary processes), Brüsel is pure image. It is what the film-still is to the film, or perhaps more accurately, the still of the film set while filming is in progress. Brüsel is an imperfect and impossible reflection void of symbolic meaning, and Brussels occupies the opposite condition as the modern

metropolis par excellence. Natives of the city know it as Bruxelles (French) or Brussel (Flemish), but equal claims could be made for Brüssel (German), Bruselas (Spanish), and Brussels (English). These are fluid signifiers of an immovable signified. Brüsel (the name holds all and none of the real city) is the inverse. It is all signifier with no signified, yet the production of the reflected image is active. It not only reveals that which was unseen, it produces the possibility for something new, an alternative. While Brussels offers a singular truth, Brüsel tells a lie that produces many possible truths—a mirror that lies only to tell the truth—as its name betrays. The reality of Brüsel thus questions the reality of its material other.

Brüsel, published in 1992, and the entire parallel world of *Les Cités Obscures*, is result of nearly two decades of collaborative work between comic book artist Francois Schuiten and writer, philosopher and critic Benoit Peeter. Since beginning the book series in 1983 with the first obscure city, Samaris, the authors have collaborated to construct a counter-mythology to the world we inhabit by constructing its other, Les Cités Obscures. While each book in the series stands alone as an autonomous narrative, they also reference the existence of the entire, undisclosed world that is being constructed. The books produce a trans-textual image that leverages worlds both internal and external to those which the authors create. In 2011 a guide book to the cities was published. The guide presented first-hand sources including maps, timelines, character bios and encyclopedic entries that further reveal the secrets of these cities. One of the documents provided a description of Victor Horta, the famous turn of the century, Belgian, art-nouveau architect. The entry states that Horta has had the largest influence over the obscure cities, but the direct relationship is never explained. Horta haunts both worlds, transcending the real and the imaginary.

A decade after Victor Horta dies, Expo '58 is held in Brussels. The Expo was the first major World's Fair following World War II. As a celebration of universality and global progress, the United Nations was offered its first pavilion. The ideal of global governance was relatively unjaded, if yet un-attempted. Designers built exuberant monuments to the triumph of Modernism. Perhaps the most impressive was Atomium. Representing the unit cell of an iron crystal scaled up 165 billion times, Atomium is the icon of the exhibition and punctuation to the end of an era. Perhaps the most awkwardly literal registration of the historical materialist system of progress, Atomium was a pinnacle signifier of the Modern project. Composed of ten stainless steel spheres each 59 feet in diameter, the monument stood 335 feet tall, providing sweeping vistas of Brussels. A slightly scaled back translation of Vlatamir Tatlin's unbuilt Monument to the Third International, Atomium was, just as the Soviet critic Viktor Shklovsky said in 1917 of Tatlin's design, a monument "made of steel, glass and revolution." (Ching 2011, 716) The truth of the Marxist agenda had yet to be articulated, however, and the '90s were still several decades away. Serendipitously however, another shiny metal sphere at the Expo was making waves: the world first artificial satellite, Sputnik. A full scale replica of Sputnik 1 hung in the Soviet Union pavilion and mysteriously disappeared sometime during the exposition—another haunting.

"At the Moment of Sputnik the Planet Became a Global Theater in Which There are No Spectators But Only Actors," the title of a 1974 essay by Marshal McLuhan, describes Sputnik as a revolutionary event. McLuhan writes: "on Spaceship Earth or in the global theater the audience and the crew become actors, producers rather than consumers. They seek to program events rather than to watch them. As in so many other instances, these 'effects' appear before their 'causes.'" (McLuhan 1974, 57) For McLuhan, new media enables man to move past conventions of language and the "one-at-a-timeness" of "the linearity of the signifier" presented by Ferdinand de Saussure, towards the "all-at-onces" made possible by the new technology.

It was on the newly constructed "Spaceship Earth" where the authors of Les Cités Obscures were born, in Brussels, 1956. Before Francois was born, Schuiten's father, Robert Schuiten, was first and foremost a painter; he later reluctantly became a Modernist architect to support his growing family. When Schuiten was born, his father was working on the designs and construction of Expo '58. The authors witnessed first-hand the birth of the new historic epoch. They lived through the erasure of historic sites and their replacement by anonymous modern residential and commercial buildings. Schuiten later termed this material production Brusselization. A critique of Brusselization plays an essential role in the collaborative work of Schuiten and Peeters, not only through the themes of their writing but also activist work to preserve buildings by Victor Horta, including Maison Autrique, the ghost materialized. Though encouraged to study architecture by his father, Schuiten refused to become an architect and participate in the Brusselization he so detested; instead, he became an illustrator. Peeters, while sharing in Schuiten's love for Brussels and hatred of Modern architecture, took a different course, pursuing not images themselves but the language and meaning of images. Peeters received a master's, then a doctorate in philosophy studying under Roland Barthes. The authors of Brüsel, in other words, were not architects—they were artists, experts in and of the image.

The Metropolis, the ideal of the modern city they were born into, as the authors knew it, was a myth. The city was not a text, but rather an image—a dialectical image. The work of the authors was not to produce manifestos of the Metropolis, using the blunt and ubiquitous textual instruments of modernism. The declaration of a manifesto aimed at the Metropolis could only confirm and therefore actualize the material accumulation they so detested in their city; instead, they set out to produce another world through which their ideas could be aimed: the possible cities of Les Cités Obscure and most specifically Brüsel. Brüsel became the aim of alternative ideals that would prove to manifest in changes to the physical world—the aim of a manifesto, but through alternative means. Instead of the manifesto, the authors pursued the obtuse third meaning theorized by Barthes,

Peeters' teacher. This type of spatial production, somewhere between architecture and not, requires an alternative praxis of theory. The authorship of Les Cités Obscure by Schuiten and Peeters, building on the work Benjamin and Barthes before them, can be read among the first of such practitioners. What follows is an initial attempt to articulate such a theory.

The Metropolis, the essential text of every architect, never failed to produce progress. It played a single note rational and clear: truth. With the fuel of rationality, the engines of Enlightenment thinking shined bright; the evidence was in built environments, architecture. The architect focused his pursuit of knowledge on the Metropolis. A mis-alignment of ambition and ideal, those architectural concepts that failed to pass through the Metropolis (failed to properly read the text) would be absorbed into the realm of the unreal. Misses in the actual world re-appear in the imaginary world. The architectural concepts that aimed for truth in the Metropolis would instantly pass through its theoretical construction, and register on the surface of physical reality, the city. Architecture, therefore, proved that architectural concepts, the pursuit of knowledge by the architect, were part of a pursuit for truth. This truth would be a manifestation of the text of the Metropolis. It followed, therefore, that progress could be measured by the accumulation of the evidence of good architecture, in space and through time, on the surface of the city, a rendering of its ideal form—the Metropolis.

With the ideal of progress inextricably tied to accumulation in the city, the Metropolis became and remains the dominant pursuit of architectural concepts. With progress came such rapid accumulation by the city that it became increasingly difficult for architects to make their contributions visible. They perpetually fear losing their claim to truth, that the public will come to doubt their capacity to contribute to the common good. Out of an insecurity, the architects then re-sight their gadgets. They worry that their work has somehow drifted from the aim of the Metropolis. To reify their relevance, the architects return to the text of the Metropolis and produce another manifesto. Literally meaning "to speak in public," the manifesto operates as a rhetorical recalibration intended to signify to the public that their aim is true. Such claims are inherently undeniable. Manifesto also literally means to "to state the obvious." Progress, the world over, despite the insecurity of the architects, was being made. Emboldened by their speech-acts, the architects return to work. Architects figured the city (the positive) against non-city (the negative) in real, physical space, in concrete and steel. A material grid on which to plot space and time, the city signifies progress—a legible text, a historic material composed of particles, teeny-tiny Antomiums.

The practice of Schuiten and Peeters manifests an image of reality that is in stark contrast to the determined accumulative tendencies of Modernism. The agency of this image could represent a much-needed escape route from the enduring, insecure expansion of the myth of the Metropolis. By producing alternative ideals to the Metropolis, by unleashing an image of possible and unknown future truths, the authors have altered both the physical and imaginary reality of the cities we occupy. Architects could learn greatly by studying Les Cités Obscures and its tangible results. The lessons therein, some of which I have outlined here, might mark the opening of an entirely new terrain of space and time upon which to practice.

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She found herself a new man with a strangely shaped,
soft pallet that lead to a rather offensive protrusion of his
two front teeth. I can no longer remember her name.
She was a foreigner in a Spanish city.
She wasn't very attractive, but she gave me whisky, so I
ate her pussy. I didn't stick around and took the bottle
with me when she went to the toilet.

I can see that kid again.
Much older and surrounded by bare breasts,
yet having trouble, once again, enjoying the milk.
I don't want no pop. I don't want no tea.
Just give me milk.

ANTHONY J MEADOWS (b. 1984)

is an American artist and musician currently based in Scotland. He completed his MFA (Merit) at the Glasgow School of Art, Glasgow, UK. Pursuing the idea that what exists outside eventually comes inside, Anthony has recently completed a significant body of work while in residence in North Wales, UK and will later this year be participating in the intern artist programme at Franconia Sculpture Park, MN (USA).