

# *Ergosphere*



Foster, Kyra-Sky, *Ergosphere* (2023), Digital illustration

# Ergosphere

## Preface:

When I set out to write this text I was asked *why*? It struck me as an odd sort of question, and my first thought was “well, *why not*?” but it's a fair query, and I would be doing a disservice to those who've posed it, as well as the text itself if I didn't actively explore my motivations for writing this. I thought back to Franz Fanon's introduction in *Black Skin, White Masks* where he writes:

“Why am I writing this book? Nobody asked me to. Especially not those for whom it is intended. So? So in all serenity my answer is that there are too many idiots on this earth. And now that I've said it, I have to prove it.”

Now, I'm less inclined than Fanon to propose that the world is full of halfwits, but I do resonate with that desire to peddle forward with an idea. To say something (which may or may not seem absurd at first glance), followed by an irresistible desire to prove it - to show that there may be some value in the years mulling over a concept or thing.

After sitting with my own *why* for a bit, letting it soak, meld and mix into all the crooks and notches between fleshy clumps of brain I settled on an answer.

I want to write a mythology, a metaphorical framework based on/in nature which draws on the experiences of myself and of the black diaspora on a larger scale. I feel that all theories, concepts, stories - fictitious or not - are myths at their cores.

I'm writing from a place of love, a love of science, myth, art and history. I want this text to act as a kind of temple (house or container) for the parallels to sit within, as to me, all temples should be treated with love and respect - “*the body is a temple*” and all that!

In doing this, I'm hoping to solidify their place in the material world as concrete, something which I feel is only achievable through record, ritual, story and/or myth. I aim to add to / explore the deep and amorphous legacies of blackness and of void. It's a reflection, meditation -

**this text is an Astro-folk-prayer.**

The goal here is to investigate the overlap between blackness, language, science and art. Oscillating registers serve as a myth-making device, as well as an active “*F you!*” to the traditional western academic text canon. I'm - *pardon my French*, fucking with the canon in my determination to reject linearity, measurement and restraint. All notions serve as a groundwork or preservative for western imperialism, and I hope to (partially) untangle myself from them through shifts in tonal register and structure throughout this piece of writing.

It's a refusal to be constrained to the dry rigour one must exercise in writing something that refers to itself as a framework, I mean how could I possibly write about the depth and breadth of blackness, stars and black holes, without a little textual hedonism? By textual hedonism I mean a colossal swelling, liquid need to extract aesthetic, sensory, intellectual and emotional value from a poetic and/or prosaic overindulgence in text.



# Ergosphere

## Introduction:

Dear Observer,

You are now entering the Ergosphere. Note the little red string to your left, hold on tightly to it, let it mingle with the blood under the pads of your fingertips.

Get acquainted with your surroundings, oscillate in the spaces between words, paragraphs and tone - I invite your heart to beat alongside the boundary, to take time - pull away, lean in further, hold, or murmur.

Three, two, one, backwards from infinity. Step into the outer ring, feel the pull of something like thirty thousand magnets set to your polarity. Breathe in;

one,

two,

three...

Welcome to the Ergosphere, this is an experimental text which exists to unravel the metaphorical mechanisms which govern both celestial black holes and terrestrial black bodies. This work is a continuation, and can be read as an accompaniment to a previous essay titled *Black Hole as Metaphor: Identity, Language and the Black Body*<sup>1</sup>. Here I will attempt to extend the metaphor both in regard to its content and reach, exploring how topics such as Gravitational Red Shift and Information Theory can be worked into the body of this ongoing investigation. The writing will regularly shift in register, with some areas adopting a more experimental style, and others resembling a more traditional academic text.

Throughout this text I'll trickle and spill through different disciplines, touching on the anchor points of the framework; physics, racial theory and history, while also drawing on biology, philosophy, art and mythology/occult practice. Maybe I lack the discipline required to stop myself from over-pouring - to keep from wetting the foundations of this concept. I'd try harder to hold myself back, but honestly, I'm foaming at the mouth here, eyes bloodshot, teeth all percussive, trembling as the little dam in my brain collapses under the pressure of all these connections - of all this **mass!**

Ergosphere is a term which describes the outer boundary of a black hole just beyond the event horizon - the point past escape. My previous text outlined the immediate linguistic and physical parallels between both black bodies. I hope that this secondary text will enable us to extrapolate more information from the framework as we journey slightly closer toward the centre.

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<sup>1</sup> Foster, K. (2021) Black Hole as Metaphor: Identity, Language and the Black Body <https://kyrafosterblog.files.wordpress.com/2022/10/black-holes-as-metaphor-identity-language-and-the-black-body-pdf.pdf>

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Black holes feel like, not *are*, but *feel* like portals. Pop culture and science communication has a tendency to demonise them, warp them into these malefic hellish gateways; e.g., Paul W.S. Anderson's 1997 *Event Horizon*. I want to lean into this demonic/monstrous aspect, re-contextualise the way we see the demonic in reference to blackness. Both share a similar socio-etymological context, demonic is derived from the Greek daimōn, meaning (roughly) "an unpredictable supernatural force<sup>2</sup>". The word black typically denotes something negative - both words will be unpicked and reworked (reclaimed) throughout this text.

Before we begin our descent, I would like to explain how both phenomena are connected; Black holes and black people share one common descriptor, that is, the prefix black. Etymologically, the choice of word is asinine as black people exist in varying shades and tints of brown, and black holes are technically invisible without the light which swirls about their event horizons. The prefix black serves to denote a simplified physical characteristic with regard to both bodies, hinting at their perception and respective roles within their environments.

"The specifics of the environment are insignificant, informed by collapse and time. To survive one must know space" - *Is now the time for joyous rage?*<sup>3</sup>

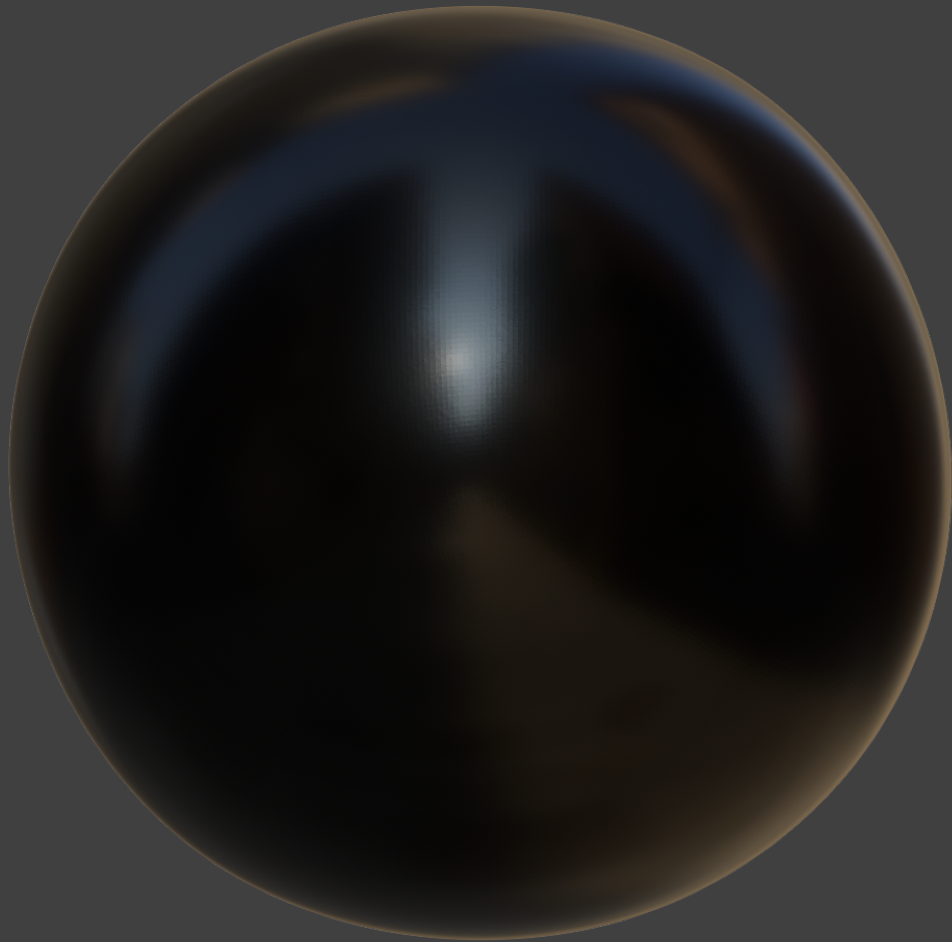
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<sup>2</sup> Versnel, H.S. (2015) Oxford.

<https://oxfordre.com/classics/display/10.1093/acrefore/9780199381135.001.0001/acrefore-9780199381135-e-2005>.

<sup>3</sup> Bekele, S et al., (2023) *Is now the time for joyous rage?* Berlin: STERNBERG PR.

# *Ergosphere*



Foster, Kyra-Sky, *Sphere* (2024), Digital 3D object

# *Ergosphere*

\*Inhale

Exhale

...

# Ergosphere

## Revolution 1:

### (Centrifugal Force)

Centrifugal Force is a fictive force used to describe the effects of other acting forces. True forces include inertia, velocity and centripetal force. We extract context from this fictive force's position to bodies in space. This reminds me of the process of categorising by race. Our nomenclature, our prefix - the thing which defines our capacity for life, death and all that falls in between; **blackness** \*shhh\* (don't say it like that, whisper it, please) - it lives, it writhes in the body of those who bear its name but it simply does not exist.

A centrifuge has to be perfectly balanced on both sides, mirroring the volume of one side on its second. It spins the blood; it separates the components into three distinct layers. Plasma, buffy coat (platelets and white blood cells) and erythrocytes (red blood cells).

This process results in the red blood cells (the darkest component) sinking to the bottom, whilst the lighter plasma is pushed towards the top; both layers are divided by a thin layer of white blood cells - the separating of blood into distinct parts through centrifugation creates a hierarchy. It can be argued that blood can split naturally if allowed to stand for long periods, but in the context of being spun by an external entity feels like something which can be explored metaphorically in greater depth.

Centrifugal force is a fictitious influence which only exists to better describe the action of another force (centripetal) on an object. The fact that a machine which artificially divides molecules into a hierarchy is named after a force which quite literally does not exist feels to me like an adequate way of describing discrimination and the assignation of racial category (also fictive) to establish power structures which favour some over others.

Within this *Ergospheric* scope whiteness is light, blackness is void, and the pseudo-concept of race is centrifugal force. Whiteness can be measured, there is a quantification of photonic energy, it is something to be computed - the single point of reference by which everything "other" is measured. The way this property interacts with matter creates visual space, which is owned by whiteness - colonised by it. "Baum concludes, among other things, "Race in short, is an effect of power.' So, when we speak or write of the stranger, the outsider, Other, we should keep in mind what the relationship signifies."<sup>4</sup> When we explore power structures imposed through othering in relation to physical forces, we allow for measurement (even if said force is fictive); we can attempt to log / graph it, and with enough data, maybe even alter its very real impact. We're flipping this phrenological system onto its belly ready for dissection, tracing it from skull to phalanx with its own dull-edged blade, physics and biology mingled in this metaphorical blood-let.

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<sup>4</sup> Morrison, T. and Coates, T.-N. (2017) *The origin of others*. Cambridge, MA: Harvard University Press.



# Ergosphere

## Revolution 2:

*(Gravitational Redshift)*



Foster, Kyra-Sky, *Red Shift* (2023), Digital illustration



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As he grows redder, redder, redder! - bloodied, bloodied! Awash in red, **stained**. He takes on the blood of the body, one drop in the ocean, the penny drops; just one bite to send him swimming down to the first circle where the pagans sing.

Gravitational Redshift is a physical process whereby upon approaching a black hole a body (when observed externally) will decrease in luminosity, grow redder in colour and appear to move slower in time as they drift towards the boundary. This process occurs as the shortest wavelength (red) is the only light that is able to hit and bounce directly off of the body, all other longer wavelengths are pulled towards the centre of gravity - the black hole's innards<sup>5</sup>.

I wonder if this occurrence can be likened to an observer's relationship to blackness, for example: Manet's *Olympia* (1863), who's reception was largely influenced by the artist's choice to include Laure, the sitter who represents the maid. Critics viewed Olympia's promiscuity as a consequence of her proximity to the maid, a black woman - it was, at the time, a representation of the staining of whiteness according to Denise Murrell in her work *Posing Modernity*<sup>6</sup>.

The closer a non-black observer's proximity to blackness, the redder they become. An observer can be ostracised from their position within a system due only to their assumed closeness to a black body; how do they speak, how do they dress, what do they listen to, who are they surrounded by? These are all questions which factor into the observer's perceived colour, and whether this initial state of whiteness (a thing often likened to purity) is tainted or stained. The shift is quick and can be violent, it's like waking up to menstrual blood on white cotton sheets.

## Revolution 3:

(Dark Portal)

The black hole is our dark portal, in stepping in, around and through it we merge and take on new life. Every fist raised in protest, every wound rubbed raw, every body flocked with feathers, twist of waist and joyous tear. In our recognition of the void, and its mirroring of us we are fused; when we speak of it, we are alchemised. The dark portal from which we slipped out and into is; to those positioned at the very edge, an infinite juggle of heaven and hell - diable's residence, a serpent's cave.

Space (or non-space) is a concept integral to the critical examination of blackness, something which the astronomical phenomenon of the black hole is capable of accommodating through the anatomy of its physical properties. Black holes are void space, they aren't true locations. They can be interpreted as a kind of portal using certain physical

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<sup>5</sup> From *gravitational collapse to black holes*. [https://www.pas.rochester.edu/assets/pdf/undergraduate/gravitational\\_collapse\\_to\\_black\\_holes.pdf](https://www.pas.rochester.edu/assets/pdf/undergraduate/gravitational_collapse_to_black_holes.pdf)

<sup>6</sup>Murrell, D. *Posing Modernity*, (2018) The Black Model from Manet and Matisse to Today. Yale University Press.

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interpretations, investigating their singularities (densest points at the centre where space-time and conceptions of physics fall apart) as Einstein-Podolsky-Rosen bridges. This term, coined after the physicists that popularised it (Einstein/Podolsky/Rosen) details how black holes could (theoretically) exist as wormholes, carrying information that they've swallowed into new points in space - to their cores where time stretches, matter disintegrates and the standard model (physics' current "most accurate" model for understanding the universe) dissolves entirely.

Ocean eddies work similarly, and are sometimes used as diagrammatic tools to represent black holes in theoretical physics experiments.<sup>7</sup> Blackness exists similarly as it lives on the fringes of space and time; it is anachronistic, anti-photon, outer-space. Light colonises matter, spreads out to touch all which it can lay claim to, almost everything is measured against it; which leaves blackness out of spacetime - fringed.

"Denise Ferreira da Silva elucidates the problem blackness poses for form by suggesting that, within the modern world, blackness bears the mantle of an ostensibly antiquated, Aristotelian definition of matter as "substance without form," which ultimately disrupts modernity's braiding of formalisation and "the Equation of Value."

Making recourse to a series of deconstructive (anti-)mathematical operations (which I will not reproduce in detail here), da Silva suggests that blackness is functional to both "the ordered universe of determinacy and the violence and violations it authorizes" and the "materia prima—that which has no value because it exists (as  $\infty$ ) without form"—which decomposes form and poses the thought of an "unbounded sociality ... without time and out of space, in the plenum."

Warren, however, advocates a "mathematical nihilism," or an embrace of a catastrophe that would dispense even with the critical recuperation of raw materiality, as "both matter and form are caught in antiblack imaginations." For Warren, "the obsolescence of both matter and form, which he calls the catastrophe, "opens a horizon of the unthinkable, where life, death, value, and nonvalue are displaced."<sup>8</sup>

Understanding blackness as a portal in conjunction with its fringed / cast-out nature feels (at least to me) a lot like classical descriptions of hell. This theme is explored in Katherine McKittrick's *Demonic Grounds: Black Women and The Cartographies of Struggle*<sup>9</sup>, where

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<sup>7</sup> Black Holes: The edge of All We Know (2020). Peter Gailson, Netflix

<sup>8</sup> Bradley, R. and Rizvana Bradley is Assistant Professor of Film and Media and Affiliated Faculty in the History of Art at the University of California (no date) *The critique of form (excerpted from anteaesthetics)*, Journal #140. <https://www.e-flux.com/journal/140/572463/the-critique-of-form-excerpted-from-anteaesthetics/>

<sup>9</sup>McKittrick, K. (2006) *Demonic grounds: Black women and the cartographies of struggle*. Minneapolis: University of Minnesota Press.

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black feminism is likened to the demonic as per the writings of Sylvia Wynter. Referencing of the demonic in relation to black femininity feels apt within BHM as it touches on the horror often referenced in sci-fi, and science media.

Cavities, craters, corners, these are the spaces within which the body fits. Asynchronous, influenced by the heat and the stretch of a ray on the glade, it is through the mind and tongue that the hands take on a kind of binding.

Umbilical cord of a red thread detaches from your belly and you are left to free fall into the expanse.

## Revolution 4:

(Postface)

All of these relationships add density to the fabric we've been weaving. The fabric we've woven will wrap around us like a weighted blanket, suctioned to our skin like a second flesh - we're all wrapped up within it, void-body or not. Surrounded by this second skin, sopping wet space suit if you will, we're embraced by this exploration of blackness, metaphor, the earth and heavens.

I'm proposing a way of viewing and/or experiencing blackness (both personally and more broadly) through a dual-aspect framework that has the capacity to entwine with almost any other discipline within which it is utilised. It's a narrative device, a myth and/or a metaphor investigating metaphors. It's a self-serving deep-dive into the abyss.

I am writing this (mostly) for myself, I have an insatiable appetite for finding connections between seemingly disparate objects and concepts - coupling things and logging the data through text. There's the craving to create a little myth of sorts, of course - that's a given; I want to weave all these threads into one big tapestry, stretched by all of the separate frameworks which inform it, that is what I believe a myth to be. It's all rather self-indulgent, I have no good excuse, just a deep throbbing desire to understand myself and the diaspora through this metaphor. Thank you fellow supersymmetric singularity, passenger, observer, whoever you are reading this, for your time. I hope that these correlations have left you with a similar satisfaction.

This is a -

record, ritual, story...myth.

I add...

...explore... deep

amorphous legacies of blackness-void.



# *Ergosphere*

*It's a reflection, meditation -*

*this text is an Astro-folk-prayer.*

*Omen*

# *Ergosphere*

You're are now exiting the Ergosphere:

Three,

Two,

One...