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Scream Theory: The Terror of Sensual Dimension

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At the bottom of the universe, underneath the quarks and neutrinos, some physicists suggest we will find vibrating strings. They are mistaken. At the very bottom there are nothing but screams. The critical error of string theorists is their adherence to a somacentric notion of dimension—the idea that the body must be *somewhere*. Just as Poincaré broke Euclidean geometry by colliding parallel lines on top of a sphere, string theorists attempt to fold extra dimensions into our comprehension of space. Sure, the math checks out, but the supersymmetric particles demanded by the theory have not been forthcoming from the Large Hadron Collider. And they won't. The universe is not constructed from *things* that exist within dimension. The universe emerges from processes unbounded by dimension. The underplasma of materiality is arranged into dimension by coalescing screams—instantiations of the end of sensibility.

When materiality (a body) reaches its end, the result is a scream. When a body is stretched beyond its senses, it screams. There is no symmetry beneath our feet, only turbulence.

The following presents scream theory by analyzing deviant articulations of causal impetus in the history of science alongside the ending scene in *Twin Peaks: The Return*, wherein Laura Palmer unleashes a scream that concludes the universe. Whether from abject pleasure or abject horror, screams break time and break semiosis. A scream is undeniably palpable yet allows entrance into a phantasmic derailment of sensibility. The geometry of the scream offers a paradigm for rethinking dynamics outside the epistemology of dimension. From Epicurus to Oresme to Lynch the memory of science is scattered through the non-dimensionality of sensory extinction.

Superfluous Symmetry

Today's universe is impossible. It is governed by two mutually exclusive laws. General relativity describes the macro-gravitational world and quantum mechanics regulates the subatomic. Given the irreconcilability of these paradigms, eager physicists have labored for over fifty years to discover and develop a conceptual mechanism capable of bridging these incommensurate scales. The universe is begging for some manner of mathematically compliant quantum gravity. A pioneering effort in this pursuit was String Theory. Emerging in the 1960s, the theory has undergone several refabulations in subsequent years. While the more evolved descendants of the theory continue to inspire vociferous champions, empirical evidence has been conspicuously absent, giving rise to a rather contagious ambivalence toward the whole concept.

Underlying the causality of the strung world is a perturbation. Based on variations in their perturbation, one-dimensional point particles (the strings of string theory) manifest the

fundamental bits (leptons, quarks, etc.). A chaotic, vibratory essence held immediate appeal as a candidate for unifying the dynamics of the universe. Of the many problems with string theories, however, few have critiqued this normalization of dynamics (the study of motion and force) as the privileged means of understanding the world. Prior to Galilean-Newtonian incursions into knowledge, the world was not governed by this kinetic reductionism. Medieval scholars privileged form over motion as the source of causal impetus.

[T]he emergence of modern science can be described as a shift from a concern with forms of nature...to an inquiry into the efficient causes of changes in the things of nature...the world becomes an effect...the result of determination.¹

Fourteenth century geometer Nicole Oresme developed a non-dynamic, pre-Newtonian mechanics

1: Denise Ferreira da Silva, "1 (life) ÷ 0 (blackness) = ∞ - ∞ or ∞ / ∞: On Matter Beyond the Equation of Value," *e-flux*, No. 79 (2017) (<https://www.e-flux.com/journal/79/94686/1-life-0-blackness-or-on-matter-beyond-the-equation-of-value/>)

based on the diagramming of intensive properties (e.g., momentum, velocity, density). Crucially, Oresme’s investigation of velocity (and changes of velocity) works underneath time, instead focusing on distance (i.e., malleable space). In visualizing velocity, the length

mobilizes itself and makes it obvious that a dimension emerges, heterogeneous to the time parameter...[M]otion as a regulated unfolding of velocity, as a plastic and undivided unit through which a subject appropriates space...to judge the more or less great perfection of the grasping of space.²

Velocity is the mobilization of length, as opposed to the product of time and displacement.

While Newton worked within Cartesian space, Oresme utilized a divergent sense of dimension. Where the Cartesian coordinate system is static (there’s motionless background space upon which figures are inscribed), Oresme’s dimensions are

animate—the background (space) moves. Change in Oresme’s world comes from fluctuations in space, not time. Oresme’s “x and y coordinates” shift around the polygons of the world to indicate change in intensive properties. Oresme’s graphs are alive, “Oresme describes how graphical representation can be applied to ‘entities that are successive’; in particular, he applies the doctrine of ‘figurations’ to motion.”³

While employing unfathomable advancements in mathematics, to some extent, string theory is still beholden to a Cartesian perspective—a view of figure and ground where some objects are inside (or outside) other objects. It remains difficult to conceive of action or existence beyond dimension. While some critique string theory as untestable, employing Pauli’s slur that it’s “not even wrong,” testability need not be an indicator of truth. Rather, string theory’s dead end is its adherence to geosomatics, to bodies *in* space. To comply with this space, string theorists demand multiple folded up dimensions. The theories vary (bosonic

2: Gilles Châtelet, *Figuring Space: Philosophy, Mathematics and Physics*, trans., Robert Shore and Muriel Zagha (Dordrecht, NL: Kluwer, 2000), 41–42.

3: Isabel Serrano and Bogdan Suceava, “A Medieval Mystery: Nicole Oresme’s Concept of Curvitas,” *Notices of the AMS* 62, No. 9 (2015): 1030–1034, 1031.

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theory requires 26-dimensions, m-theory requires 11, superstring theory requires 10), but all postulations attempt to add dimension to explain “where” otherwise impossible incidents occur—that is, moments that do not fit into our four quotidian dimensions. As small and folded as it

may be, the string must be coordinated. It must exist somewhere and sometime. A more salient paradigm for constructing a workable undertheory, then, would be an ephemera that unbodies the coordinated world. The scream is such an entity.

The Speed of Scream

While the physiology of the human scream (or any other species) should not be dismissed, scream theory expands on what constitutes the scream and why it occurs. People emit screams for several reasons—pain, outrage, pleasure, surprise. The scream occurs when the senses are stretched to their maximal extents. For this reason, unlike Newtonian mechanics (and much post-Enlightenment science), the scream is inalienably subjective. It is only produced by perspectives undergoing experience. Every body screams but every body is capable of enduring different degrees of sensation. Screams are neither deterministic nor indeterminate. They happen. Always. Forever.

The idea of non-human organisms screaming isn't too controversial (plenty of research suggests flora endure agony and delight), but re-

sistance to geologic or atomic screams lingers. More than metaphor, the volcanic eruption is clearly matter being stretched to the end of itself, to the point where it is no longer itself (see Munch's iconic *Scream* painting, which is suggested to represent the Krakatoa eruption). The end of a body is a scream, no matter what kind of body. Atomically, electricity reveals the scream of an electron alienated from itself. Electricity is the violent separation of the electron from its atomic body. The electricity of our gadgets is the agony of electrons trying desperately to return to a body. Our world is powered by the screams of off-bodied electrons.

Screams are aseismic. Generally, when two bodies interact, they respond to whatever signals they are habituated to emit and perceive. The scream disrupts this semiotic process. There is no such thing as a scream-

ing body. The scream is the singularity where the body becomes impossible. It is not enough to say such singularities represent limits. Rather, what we perceive as limits (to size, speed, heat) is the screamsorium where bodies have become detached from their senses. Here, at the bottom of the world, the illusion of dimension is secreted from lost sensuality. Everything that is the universe comes from the irruption of the scream.

Screams change the world, alter the universe. This rearrangement has similarities with the *clinamen*, Epicurus' causal mechanism. This concept accounts for the "unpredictable swerve" of the world: "if [atoms] were not in the habit of swerving, they would all fall straight down through the depths of the void...no collision would occur, nor would any blow be produced among the atoms. In that case, nature would never have produced anything."⁴ While the *clinamen* (sharing etymology with "inclination") operates dimensionally, it evokes the fundamental turbulence

necessary to scream ontology. Today, there remains no satisfactory mathematics of turbulence; no means of determining the outcome of turbulent processes.⁵

A scream can be any size, volume, or temperature. Our faunal screams are frequently auditory, but the scream is not contained by noise. We are quite capable of silent screams, as are the non-human masses that surround us. While our noises can be sensed, this is just epiphenomena. The scream is not the noise. The scream is the insensible disembodiment that induces the noise. As the singularity of the sensory, the scream is simultaneously the maximum amount of feeling an entity can endure, yet also where the capacity to be felt disintegrates. This attribute of the scream allows it to bridge the insufficiencies of dynamic causality and the incompatibility of relativity and the quantum. Scream theory offers a non-dynamic causality—a theory of change un beholden to the dimensional coordination of gravitational and subatomic scales.

4: Lucretius, "The testimony of Lucretius," in *The Epicurus Reader: Selected Writings and Testimonia*, trans., Brad Inwood and L. P. Gerson, 65–67 (Indianapolis, IN: Hackett, 1994), 66.

5: If you solve the Navier-Stokes equations describing existence and smoothness you win \$1 million, as it is one of the Millennium Prize problems in mathematics.

The Black Lodge

Efforts to critically analyze *Twin Peaks* are inevitably inadequate, but this is because the show is a gesture rather than a piece of work meriting literary criticism. *Twin Peaks* is a gesticulation forced into the universe following the nuclear scream of weaponized radioactive decay. While the show exists in our semantic world, it approximates the asemic turbulence of the scream. Because of its placement within a social history, the human scream has, like *Twin Peaks*, had to endure various interpretations (e.g. fear or hysteria), but these are just cultural annexations of scream aesthetics (as opposed to scream interiority). *Twin Peaks: The Return* offers a glimpse into the interior of the scream.

Twin Peaks: The Return concludes with a shiver scream from Laura Palmer. Why is this scream so spine-chilling (it's hard to imagine watching it without a tingle)? A scream is not inherently terrifying. The terror is in the unbodiment of sensation, a free-floating capacity to feel estranged masses. In the non-dimensionality of the scream, you can

suddenly feel something from a million years in the future on a foreign planet. The scream is an ejection of sensibility from the body. Our species tends to experience this as horror (though not always), not because it is necessarily painful but because it occurs outside dimension. It is "monstrously" uncoordinated—gangly and ill-fitting. Without dimension, the pieces of the world detach grotesquely.

Underneath time, screams are scary because they can last forever or they can unexist. A scream never ends (or begins), it just reconfigures. Upon the rearrangement of materiality into dimensional form, the senses recoil into the body. Laura Palmer is burdened by the ability to perceive the endless screams of the world. Much has been written of the disjunctive spacetime, identity shifting, and posthuman animism in *Twin Peaks*.⁶ These perversions of dimension are the reconfigurations of the scream. This is the scream doing its work of weaving together material debris into a dimensional canvas that massive entities (from electrons on

6: See, for example, Antonio Sanna, *Critical Essays on "Twin Peaks: The Return,"* (Cham, CH: Palgrave, 2019).

up) can operationalize. Laura Palmer is looped into this screamworld of perpetual reconfiguration and extended sensibility. And it horrifies us.



Excavation site plan from 2017 Oregon Eclipse Festival with delusional dimensionality. Image by author.

Got a Light?

Like Oresme's diagrams, the glimpse offered by *Twin Peaks* opens new avenues for thinking causality outside the dominant paradigm of dynamics. The privileging of dynamics in physics is deeply entangled with industrial-colonial-capitalism. The

entire field of thermodynamics was conceived through Carnot's valorization of the steam engine as epitomizing "the distinction between civilization and savagery."⁷ This is an epistemology that prioritizes moving things around the planet as fast as possible.

7: Barri Gold, *ThermoPoetics: Energy in Victorian Literature and Science* (Cambridge, MA: MIT Press, 2010), 129.

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Scream theory is one of many possible approaches to thinking outside of dimensional dynamics. Marletto's Constructor Theory offers similar opportunities. Marletto argues that "all the laws of physics could be formulated solely in terms of principles about counterfactuals, and that the laws of motion follow from them as derivative."⁸ In this, she seeks to bring "entities that look superficially like immaterial abstractions into the domain of physics."⁹

Within geometry, dimension is somewhat analogous to the concept consciousness—an ill-defined platform which we assume mediates experience. As demonstrated by Laura Palmer, consciousness is not a given, but a fractured means of representing being. Just as consciousness has proved something of a dead end in scientific research, dimensionality could be an equally unproductive cul-de-sac. It's not impossible (and hopefully someone tries) to pursue a mathematics of the scream, to calculate the malleability sentiment where the illusion of dimension melts.

Episode 8 of *Twin Peaks: The Return* enters this melting dimen-

sion—the interior of the scream. The detonation of an atomic bomb in New Mexico unleashes a molten scream which exposes the universe to drastic realignment. This scream instigated a trajectory in which the show *Twin Peaks* exists in order to bring forth the character Laura Palmer to peer into the screamscape. The fiction of *Twin Peaks* is not its narrative, but its confinement to dimension. The gesture wants out. But it's not trapped in the subprotonic infra-dimensions for which CERN is hunting. The spatial dementia of nuclear weaponry pushes physics into smaller and smaller crevices with greater and greater heats (the LHC reaches heats of $5 \times 10^{12}^{\circ}\text{C}$, nuclear bombs reach $1 \times 10^{8}^{\circ}\text{C}$). *Twin Peaks* illustrates though that the small velocities of leptonic particles are not where causality begins. Nor are any of Aristotle's four causes (material, formal, efficient, final) terrifying enough to begin this world. Only a scream could cause this catastrophe.

8: Chiara Marletto, *The Science of Can and Can't: A Physicist's Journey through the Land of Counterfactuals* (New York, NY: Viking, 2022), 210.

9: Marletto, *The Science of Can and Can't*, 207.