Thermodynamic Rhythm: The Poetics of Waste[[1]](#endnote-1)

Abstract

This essay argues that the cultural reception of thermodynamics in the late nineteenth century reformulated the concept of rhythm, in an attempt to manage, mitigate or acknowledge the problem of waste. Having demonstrated an overlooked historical dialectic between the thermal sciences and prosody, I conclude by reading A. C. Swinburne’s *Tristram of Lyonesse*, so as to demonstrate how rhythmical excess represents a positive expressive resource.

Thermodynamic Rhythm: The Poetics of Waste

Towards the end of 1858, Herbert Spencer was feeling out of sorts. His malaise surfaces in an undated letter written around that point to a close friend, the physicist John Tyndall, whom Spencer had recently seen. “That which was new to me in your position enunciated last June, and again on Saturday,” Spencer states,

was that equilibration was death. Regarding, as I had done, equilibration as the ultimate and the *highest* state of society, I had assumed it to be not only the ultimate but also the highest state of the universe. And your assertion that when equilibrium was reached life must cease, staggered me. Indeed, not seeing my way out of the conclusion, I remember being out of spirits for some days afterwards. I still feel unsettled about the matter, and should like some day to discuss it with you. [[2]](#endnote-2)

It is difficult to behold Spencer’s dismay without a modicum of vindication. From at least as early as Richard Hofstadter’s *Social Darwinism in American Thought* (1955), which connected his evolutionary sociology to a variety of more-or-less totalitarian twentieth century worldviews, our culture has been accustomed to regard Spencer’s remarkable celebrity as one more Victorian *faute de goût*.[[3]](#endnote-3) Yet where Spencer’s notion of equilibrium (“the ultimate and *highest* state of society”) sought to balance the economic laws of supply and demand, or competing class interests, the second law of thermodynamics (to whose consequences his letter refers) identifies it rather with the inexorable cooling of the universe into dispersed, entropic, heterogeneity. However bleak that eventuality appears, we might at least derive consolation from the fatal compromise of Spencer’s teleology.

 Yet Tyndall’s revelation did not simply spell the end for Spencer’s syncretic philosophy, as Bruce Clarke supposes in a rather summary treatment of the above letter.[[4]](#endnote-4) Rather, it instigated a sustained attempt to reconceive the very notion of the biological or social system. One concept proved singularly significant in this regard: rhythm. That term had already proven pivotal for Spencer, underpinning his influential 1857 essay “On the Origin and Function of Music”; from late 1858 on, however, he would brandish it as a sort of talisman.[[5]](#endnote-5) His *First Principles of a New System of Philosophy* (1862) enlisted it in an attempt to salvage some notion of regularity through (rather than despite) variation: “it will be seen,” wrote Spencer, “that rhythm results wherever there is a conflict of forces not in equilibrium”; in a footnote to the same passage, he elaborates that “[a]fter having for some years supposed myself alone in the belief that all motion is rhythmical, I discovered that my friend Professor Tyndall also held this doctrine.”[[6]](#endnote-6)

Only in 1873, however, would Spencer return directly to the dispiriting second law, engaging in an exchange of letters with James Clerk Maxwell, to whose credentials Tyndall had earlier appealed. The debate hinges on the best way to account for the kinetic motion of gases, which Maxwell was in the process of investigating. Spencer, who was always a popular expositor and synthesiser rather than a true experimentalist, suggested that his own philosophical concept of “the instability of the homogenous” might usefully describe what Maxwell had termed “agitated” fluctuations. Even molecules whose path diverged significantly from the overall distribution within a stationary container could, Spencer continued, be described as “rhythmical,” to the extent that we could measure divergence itself.

Maxwell demurred. On 17 December, 1873, he responded to Spencer that

if, as I understand the word rhythmic, it implies not only alteration, but regularity and periodicity, then the words “agitation” excludes the notion of rhythm, which was what I meant it to do […] A great scientific desideratum is a set of words of *little* meaning—words which mean no more than that a thing belongs to a very large class. Such words are much needed in the undulatory theory of light, in order to express fully what is proved by experiment, without conceding anything which is a mere hypothesis.[[7]](#endnote-7)

Maxwell’s desire for linguistic hygiene is quite justifiable: no one wants a concept of rhythm capacious enough to include everything, and thereby nothing. Yet the language game over “agitation” or “rhythm” masks a serious question: to what extent can we measure divergence? Such questions still hold purchase for any attempt to measure the probability distribution of stochastic processes, or turbulent flow. We can replay the same thought in a metrical key: to what extent can a given poem tolerate inversion, syncopation or disappointed expectation, before such deviations abolish the pattern or norm from which they spring? My analogy is purposefully leading. For although scholars such as Gillian Beer, Michel Serres and Bruce Clarke have traced at length the broad cultural (and literary) response to the second law of thermodynamics, we have yet to grasp the extent to which the spectre of entropy engaged the concept of rhythm, in general, and the practice of poetic rhythm more specifically.[[8]](#endnote-8)

It can prove difficult to grasp the full extent of this conceptual transformation, in part because the notion of rhythm has become so essential a part of our conceptual armature that we struggle to imagine things ever being different. Yet different they were. The word “rhythm” is in fact conspicuous by its absence prior to the nineteenth century: across the whole of Gale Cengage’s Eighteenth Century Collections Online (which numbers over 150,000 documents), only 257 texts contain the word “rhythm”; compare this to 6,854 texts that employ the word “metre,” despite the latter word appearing to have a narrower extension. This quantitative trend reflects qualitative differences: in keeping with the pattern described above, Samuel Johnson does not define “rhythm” in his *Dictionary* of 1755–56. He does however, define “rhythmical,” in rather striking terms: “Harmonical,” runs Johnson’s minimal gloss, “having proportion of one sound to another.”[[9]](#endnote-9) In the space of a century, then, definitions of the term have moved nearly full-circle: from Johnson’s harmonious proportionality, we move toward Spencer’s conflictual disequilibrium.

This essay claims that the second law of thermodynamics plays a crucial role in this broader reconceptualization. It enumerates three broad, complementary responses to the spectre of entropy, each of which recurrently engages with prosody: I call these *rhythmical innatism*, *rhythmical transmission*, and *entropic rhythm*. While they are distinct enough to be enumerated separately, several figures (such as John Tyndall, Edmund Gurney and Spencer himself) offer theoretical impetus to more than one designation. A great deal of this historical process occurs just as conceptual reformulation typically does: through propositional argument and discussion, over the course of which the *word* “rhythm” becomes increasingly central. Yet the most significant interaction between thermodynamics and verse rhythm, I conclude by arguing, occurs on the non-discursive level of experience and prosodic technique: having charted the strange fascination that several scientists share with A. C. Swinburne’s poetry, I read his long poem *Tristram of Lyonesse* as an abundant, excessive instance of what we can call the poetics of waste.

1. R*hythmical Innatism*

The second law of thermodynamics poses the problem of waste: the amount of energy convertible into work will invariably decline, however efficient the combustion engine; even the most well-organised human body will prove increasingly prone to fatigue. As Anton Rabinbach’s brilliant *The Human Motor: Energy, Fatigue and the Origins of Modernity* has demonstrated, the latter half of the nineteenth century witnessed a sustained effort to mitigate or manage these irreversible effects, where Herman von Helmholz’s experiments upon the regenerative power of nervous tissue grounded a biopolitics of rationalised labour.[[10]](#endnote-10) In practice, such attempts frequently sought to combat the second law of thermodynamics with a renewed emphasis upon its predecessor: the first law of thermodynamics posited that energy could neither be created nor destroyed. (While both laws complemented each other, it is not difficult to see how they were often viewed as contradictory.)

John Tyndall gives a textbook example of such an approach, in his *Heat considered as a mode of motion* (1863):

The law of conservation rigidly excludes both creation and annihilation. Waves may change to ripples, and ripples to waves — magnitude may be substituted for number, and number for magnitude — asteroids may aggregate into suns, suns may invest their energy in florae and faunae, and florae and faunae may melt in air — the flux of power is eternally the same. It rolls in music through the ages, while the manifestations of physical life, as well as the display of physical phenomena, are but modulations of its rhythm.[[11]](#endnote-11)

Tyndall, as we have already observed, fully understood the consequences of the second law. Yet heat-death figures here as no more than a faint suggestion (the reassuringly plural “suns” that “invest their energy in florae and faunae”), within a Heraclitean eternal flux. I call such rhetoric *rhythmical innatism*: thermodynamics compels the author to acknowledge a moment of rupture or discontinuity (hence the notion of the metric or chronometric no longer suffices), yet such phenomena only affect individual organisms that in turn are recuperated into a broader homeostatic system.

This rhythmical innatism burst into sudden and splendid life during the final three decades of the nineteenth century—a tendency that, as Tyndall’s lectures on *Sound* (1867) demonstrate, both relies upon, and reformulates, aesthetics. That work is reliant upon Helmholz’s acoustic experiments, which—in keeping with his broader work on fatigue—treat the phenomenon of dissonance as a series of discrete “shocks,” from which the ear recovers.[[12]](#endnote-12) The technocratic problem of labour power, then, runs structurally parallel to the (perceived) aesthetic problem of discord. Tyndall repeatedly approaches the problematic of dissonance in just the same manner as he treated the “melting” of individual flora and fauna: as a singular rupture than nonetheless forms part of a broader “rhythm.” Indeed, the “ripples” and “waves” are here quite literal. For Tyndall’s rhythmical solution of dissonance has two steps: firstly, he converts it from a tonal concern (where dissonance represents the simple cancellation of harmony) into a specifiable number of “beats,” or “vibrations”; secondly, Tyndall translates its (grotesque) audibility into (pleasing) visibility, through the rhythmical series.

Fig. 1 demonstrates how the surveying eye replaces the fatigued ear: Tyndall trains a beam of light upon a tuning-fork, whose reflecting vibrations tracing a series of oscillations upon a screen. “I augment the dissonance by increasing the load,” he writes; “the rhythmic lengthening and shortening of the band of light is now more rapid, while the intermittent hum of the forks is very audible.”[[13]](#endnote-13) Tyndall frequently struggles to express his aesthetic regard for such figures (“The rapid rippling of the scrolls from one form of beauty to another cannot be rendered”[[14]](#endnote-14)). Fig. 2, which charts the changing vibrations of a progressively shortened violin string, demonstrates most clearly the recuperation of dissonance within a symmetrical order: the sudden rise following the unison at *c’* demonstrates a sudden increase in dissonance, whose counterpart (and resolution) arrives at the end of the series, as the dissonance vanishes at *c’’*, one octave higher. Discord is but one plunging line within a rhythmical whole.

Friedrich Kittler is therefore a little hasty, when he asserts that the brute “frequency” that in the nineteenth century supersedes harmonic intervals exceeds all possible measurement, one alleged factor in the abolition of “so-called man.”[[15]](#endnote-15) As Tyndall’s example proves, sound-as-vibration precisely *permit*s visualisation as a rhythmical series of waveforms, rather than the static representation of standard chord-ratios; such inter-sensory translations permit Tyndall and others to re-engineer early modern cosmologies in a more dynamic guise. (Humanism proves more resourceful than Kittler gives it credit.) The ideological danger, with this line of thinking, is that individual moments of dissonance, break or waste are simply folded into a broader pattern that remains no less totalising for being dynamic. We observe precisely such a tendency in the closing two decades of the nineteenth century, where the Spencer-Tyndall formulation of rhythm justified normative conceptions of poetry on both sides of the Atlantic.

Sidney Lanier’s *Science of English Verse* (1880) offers a key document in this respect. In the section entitled “Of Rhythm, Throughout all those Motions which we call ‘Nature’,” Lanier lists a roll-call of periodic phenomena extensive enough to put even Tyndall to shame. The dance of primitive tribes and the music of Chopin and Liszt; the “spiral distribution of the remote nebulae” and the twinkling and dimming of stars; planets, satellites, sun-spots, sea-tides, trade-winds, long grasses in running brooks, storms, earthquakes, diseases, minor fevers, lungs, the diastole and systole of the heart and “the cilia of the animalcule”: “everywhere,” concludes Lanier, “we find rhythm.”[[16]](#endnote-16)

 The inspiration for this catalogue is familiar: “Mr. Herbert Spencer claims to have observed such a prevalence of this rhythmic periodicity throughout nature as to convince him that it is universal: and states that this belief is shared by Mr. Tyndall.”[[17]](#endnote-17) Yet Lanier shies away from Spencer’s thought at its most radical. The former is forced to concede that “there is yet a more general view of the rhythmic principle which hints that this proportion in which the worlds move and by which ‘things stand to be good or beautiful’ is due to antagonism. Mr. Herbert Spencer has formulated the proposition that where opposing forces act, rhythm appears.” Poetic meter, however, so far from offering any insight into antagonism, finally deliver us from its essential unknowability, as Lanier concludes his scientific exposition with the numinous statement that poetry allows us, somehow, to see into “the otherwise chaotic fabric of things: we may be able to see dimly into that old Orphic saying of the seer, ‘The father of metre is rhythm, and the father of rhythm is God.’”[[18]](#endnote-18) The classical foot upon which *The Science of Verse* falls back finally bears little relation to the operation of “opposing forces.”

 This doctrine of rhythmical innatism, and in particular its joint insistence upon the conservation of force and the conventional metrical foot, runs like a red thread through late-nineteenth-century North American culture.[[19]](#endnote-19) The minor Canadian poet Bliss Carman represents a particular nadir in this respect. Carman had heard Herbert Spencer lecture in New York, in 1882, on the thoroughly Helmholtzian topic of “The Gospel of Relaxation” (“we have heard too much of the gospel of work,” Spencer was said to have declared, “perhaps we need to hear about the gospel of relaxation”),[[20]](#endnote-20) a theme that clearly inspired his subsequent opposition to a vitiating, effeminising modernity. His essay “Personal Rhythm,” which appeared in *The Friendship of Art*,proves emblematic: “it is one of the great evils of modern life,” Carman writes, “that it tends to throw us out of rhythm. We are nearly all hurried to a point of hysteria. It is not so much that we have more than we can do, as that we allow the haste to get on our nerves.”[[21]](#endnote-21) Despite the wasting pressures of civilisation, each individual is naturally fitted in a certain manner, modelled explicitly upon metrical feet. “Dons and dowagers and policemen are always iambic in their rhythm,” given their “ponderous” temperament. Scholars or policemen should take note, though such persons at least have the consolation of not being “undecided people,” who are condemned to move in “dactylic measure.” Amorous men, it may be needless to say, converse in trochees.[[22]](#endnote-22) The unintended comedy of the sketch only briefly offsets its profound illiberalism.

1. *Rhythmical Transmission*

While Bliss Carman’s prosodic essentialism represents a low point in rhythmical innatism, that intellectual tendency does at least attempt to confront the aesthetic and moral problem of entropy, figured as waste, fatigue or dissonance. I now turn to another response to the second law of thermodynamics, which more radically questions the very existence of waste. Balfour Stewart and P. G. Tait offer a distilled example of such a tendency, in their *The Unseen Universe, or Physical Speculations on a Future State* (1875):

Just as no single action of the body takes place without the waste of some muscular tissue, so, it is believed, no thought takes place without some waste of the brain. Nay, physiologists go even further, and assert that each specific thought denotes some specific waste of brain-tissue, so that there is some mysterious and obscure connection between the nature of the thought and the nature of the waste which it occasions. In like manner memory is looked upon as dependent upon traces, left behind in the brain, of that state in which it was when the sensation remembered took place.[[23]](#endnote-23)

This short extract quickly metabolises the irreversible process of muscular atrophy into a rather more positive concept of mental “trace,” a waste-product of cognition that cognition continues to draw upon (in the form of memory). The “mysterious and obscure connection” drops strong hints that nothing, in fact, is ever truly lost, a rehearsal for Tait and Stewart’s treatment of the immortal soul. While Tyndall’s materialist universe incorporated dissolution into its broader rhythmical economy, Tait and Stewart’s theological physics denies the very existence of dissolution.

The concept of rhythm also assumes a pivotal significance in this second response to thermodynamics, albeit in a different form. Where previously it had proven a property (of a dynamic social or biological system), the term now designates a function: a variety of thinkers conceive rhythmical *transmission* as the perfect (waste-less) communication between individual bodies. Ironically enough, the roots of this tendency can also be traced back to Tyndall’s *Sound* lectures. Tyndall, we recall, converted the dissonant note into part of a symmetrical visual series. But his audio-visual conversion also frequently did something more dynamic than simple transcription—as we observe with his famously crowd-pleasing “sensitive flames,” where gas fires were either enclosed in metal tubes or subject to subject to a steady airflow discharged from a blowpipe. Fig. 3 demonstrates such a process of sensitization. “[T]he passage of air over it,” writes Tyndall, “is usually sufficient to produce the necessary rhythmic action, so as to cause the flame to burst spontaneously into song,”[[24]](#endnote-24) when a whistle is blown.[[25]](#endnote-25)

Considered objectively, this flame does no more than the oscillating waves: it provides an index (whether visual or acoustic) of a given stimulus, in this case a whistle. Yet Tyndall’s pathetic fallacy (“burst spontaneously into song”) suggests that “rhythmical action” somehow enables a less circumscribed subjectivation. And this is as nothing to what follows:

The most marvellous flame hitherto discovered is now before you. It issues from the single orifice of a steatite burner, and reaches a height of 24 inches. The slightest tap on a distant anvil reduces its height to 7 inches […] The creaking of my boots puts it in violent commotion, or tearing of a bit of paper, or the rustle of a silk dress, does the same. It is startled by the patter of a raindrop […] From a distance of 30 yards I have chirruped to this flame, and caused it to fall and roar. I repeat a passage from Spenser:—

 Her ivory forehead full of bounty brave,

 Like a broad table did itself dispread;

 For love his lofty triumphs to engrave,

 And write the battles of his great godhead.

 All truth and goodness might therein be read,

 For there their dwelling was, and when she spake,

 Sweet words, like dropping honey she did shed;

 And through the pearls and rubies softly brake

 A silver sound, which heavenly music seemed to make.

The flame picks out certain sounds from my utterance; it notices some by the slightest nod, to others it bows more distinctly, to some its obeisance is very profound, while to many sounds it turns an entirely deaf ear (240–41).

This pathetic flame comes across as a twenty-four-inch-tall caricature of Keats, with an exquisite sensibility that starts at the rustle of silk or tread of a boot. While the content of Spenser’s poem (as opposed to its aural frequency) has no bearing upon the flame’s motion, the line “A silver sound, which heavenly music seemed to make” somehow seems to hold extra-scientific significance. Appropriately, the flame flutters most pronouncedly when Tyndall expostulates the lyric “Ah!”[[26]](#endnote-26)

 While Tyndall was evidently a materialist long before his Belfast Address of 1874, it is not difficult to see how such pantheistic overtones might open the door to the occult. Indeed, his own laboratory assistant during these sensitive flame experiments, William Barrett, did just that, with his *On the Threshold of the Unseen* (1917) replacing Tyndall’s sensitive flame with muffled voices of the dead that, like it, register a “rhythmic scraping” in time with music.[[27]](#endnote-27) It is easy enough to ridicule such accesses of Victorian spiritualism (and Barrett himself was nothing but a fraud). Yet scholarship curiously overlooks the sustained overlap between an institution such as the British Society for Psychical Research, and the formulation of rhythm in a more properly philosophical sense. Alfred North Whitehead was close to Sidgwick and other members of the group, during his own time at Trinity in the 1880s, while Henri Bergson was even elected President. Bergson had earlier written a short paper upon the breathing rhythms of individuals under hypnosis; his presidential address, “Phantasms of the Living and Psychical Research,” doffs its cap to Myers, as, in another context, did William James.[[28]](#endnote-28)

 For the purposes of this paper, however, I am more concerned with the manner in which this developing conception of rhythmical transmission once again recurrently articulates itself through verse. We observe such a conjunction in both F. W. H. Myers and Edmund Gurney, whose psychical research has long overshadowed their varied output. Myers’s *Human Personality and Its Survival of Bodily Death*, as its title suggests, offers a textbook instance of the attempt to deny waste, with its author keenly aware of the consequences of entropy (as we shall later see). As with Barrett, Myers’s various accounts of occult communication frequently rely upon the concept of rhythm: we read of a certain “Mme. X,”who one day “felt herself lifted by force from her arm-chair and compelled to stand upright. Her feet and her whole body then executed a systematic calisthenic exercise, in which all the movements were regulated and made rhythmic with finished art”; later, at the Paris Exhibition of 1889, the same Mme. X observed a Javanese dance “consisting of rhythmic motions of the body with contortions of the arms. The occult agents caused her to repeat this dance several times with perfect execution.”[[29]](#endnote-29) Elsewhere, Myers’s own verse criticism and practice makes clear his belief in the similarly inducing power of poetic rhythm.

It is only with Edmund Gurney, however, that such eccentric concerns assist what we can truly begin to consider as a proto-phenomenology of poetry. In addition to his psychic researches, Gurney was a musicologist of unusual range and sensitivity; I will turn to his ambitious treatise *The Power of Sound* (1880) in due course. His essay “Poets, Critics and Class-Lists” demonstrates a similar sensitivity to verse. Having argued against the tendency to treat sound and reference as two unrelated orders of signification (a tendency that he associates with Matthew Arnold, among others), Gurney elaborates upon the cognitive significance of the non-discursive, or “presentative” aspect of verse: “rhythm perpetually not only transfigures the poetical expression of an idea, but makes the idea of that expression possible.”[[30]](#endnote-30)

In order to prove such a claim, Gurney appeals repeatedly to the “self-experiment” of reciting verse.[[31]](#endnote-31) It is through this communication of “unreasonable” yet cognitively significant material that we detect the faint trace of Gurney’s paranormal activity, which surfaces in the stray word “medium”: “the poet speaks through a medium which seems to intensify the point and to extend the range of what he would tell us by some power outside his own volition. Such a power, in fact, a rhythmic order, in its fundamental appeal to human nerves, literally is.”[[32]](#endnote-32) At such moments there is a real tension, between Gurney’s remarkable sensitivity to embodied cognition (more proof for which we will see later), and an idealized form of rhythmical transmission that eliminates all difference. Just as Mme X.’s automatic motion was “regulated and made rhythmic,” so Gurney’s theory of verse transmission sometimes becomes normative in a manner that is strikingly at odds with his more general theory: in a discussion of a hypermetrical line from Keats’s “Ode to Autumn” (“Budding—fruit ripening in still stillness—autumn suns”), for example, Gurney asserts that “the back of the metre is completely broken […] the irritation produced may be quite on a par with the pleasure which has preceded it.”[[33]](#endnote-33) If rhythm is indeed “an abstract order of sound [that] gets wrought into the very tissue of […] thought,” as I like Gurney believe it to be, then surely separate bodies, with separate constitutions, might respond differently to Keats’s “broken” metre. We need only apply Gurney’s recommended “self-experiment” to prove it.

1. *Entropic rhythm*

Both of the responses to thermodynamics surveyed above attempt either to manage waste (through absorbing it into a broader rhythmical economy), or to mitigate it altogether (through the fantasy of a perfect transmission that would communicate “the” poem, or even the dead). It should be clear that I find both of these tendencies both historically significant and theoretically productive, despite their clear ideological dangers. For the remainder of this essay, however, I devote my attention to a third and to my mind more productive tendency, which I loosely term entropic rhythm. This approach acknowledges the implications of the second law, which it tries to render liveable; “liveable,” as we shall see, takes a variety of forms.

Once again, this response was drawn ineluctably into the ambit of verse. James Clerk Maxwell’s deathbed poem, a “Paradoxical Ode after Shelley,” casts doubt upon Stewart and Tait’s recruitment of contemporary science in service of the immortal soul:

Till in that twilight of the gods,

When earth and sun are frozen clods,

When, all its matter degraded,

Matter in aether shall have faded,

We, that is, all the work we’ve done,

As waves in aether, shall for ever run

In swift expanding spheres, through heavens beyond the sun.[[34]](#endnote-34)

Our “work” may endure, but in what form, given an entropic world of frozen clods? In a formal review of *The Unseen Universe* for *The Fortnightly Review*, the strident atheist W. K. Clifford converts Maxwell’s ambivalence into more forthright critique. His demonstration of the invariability of entropy again leads naturally to verse:

Consider a mountain rill. It runs down in the sunshine, and its water evaporates; yet it is fed by thousands of tiny tributaries, and the stream flows on. The water may be changed again and again, yet still there is the same stream. It widens over plains, or is prisoned and fouled by towns; always the same stream; but at last

‘even the weariest river

Winds somewhere safe to sea.’

When that happens no drop of the water is lost, but the stream is dead.

The source here is Swinburne’s “Garden of Proserpine”; Clifford would make a habit of citing his verse in scientific reviews.[[35]](#endnote-35) He was not alone in situating the poet within an explicitly thermodynamic context. In his “Modern Poets and the Meaning of Life” (1893), F. W. H. Myers asks expansively, “Does the law of the conservation of energy condemn man’s consciousness to extinction when the measurable energies which build up his chemical texture pass back into the organic world, or may his conscious life be a form of activity which, just because it is not included in our own cycle of mutually transformable energies, is itself in its own proper form as imperishable as they?”[[36]](#endnote-36)

Myers has so elaborated the second prospective answer to his longwinded rhetorical question (which he immediately rephrases a further four times), that we feel certain that the answer will be—no; we are not condemned to extinction! Yet while much of his work favours exactly this response (as we have seen), Swinburne here permits Myers a very different approach. “[O]f all Swinburne’s poems,” he writes, “perhaps the most wonderful, with melody farthest beyond the reach of any other still living man, is that ‘Garden of Proserpine’, whose close represents in well-known words the deep life-weariness of men who have had enough of love […] there is here a profounder renouncement of life; there is the grim suspicion which has stolen into many a heart, that we do in truth feel within us, as years go by, a mortality of spirit as well as flesh.”[[37]](#endnote-37)

Swinburne, it transpires, poses a profound challenge to the spiritualism both of Myers and Gurney. The latter, we recall, had imagined poetry as a rhythmical “medium” for the communication of thought; Gurney’s reading of Keats’s “broken” hypermetricality attempted to preserve the regularity of rhythm. Yet this normative approach comes into increasing tension with the linked concepts of waste, fatigue and dissonance. In “Poets, Critics and Class-Lists,” Gurney commends Swinburne as a positive nineteenth-century instance of “barbarous harshness,” which a narrow conception of musicality would needlessly overlook.[[38]](#endnote-38) His *magnum opus*, *The Power of Sound*, engages repeatedly with Helmholtz’s theory of nervous repair, so as to challenge its applicability to musical rhythm. “It may be suggested that the very mode of life of a nerve-cell is rhythmic,” Gurney declares, seeing that in it exhaustion and nutrition, waste and repair, succeed each other in regular order.”[[39]](#endnote-39) Such a definition might at first seem to extend Lanier’s sweeping cosmology; yet Gurney goes on immediately to question such “regularity,” conceiving rhythm rather as disequilibrium, just as Spencer had before him:

[…] one would naturally suppose that for a succession of stimuli to produce a sense of rhythm, each must occur before the effects of its predecessor have quite disappeared, that is, *before* the condition of complete nervous equilibrium has been re-established; and on the theory we are discussing, complete equilibrium seems unsusceptible of any other meaning than complete repair.[[40]](#endnote-40)

Aesthetics is not a homeostatic system: “Mr. Grant Allen well expresses it in in regard to rhythm: ‘if the opportunity for the discharge is wanting, the gathered energy has to dissipate itself by other channels, which involves a certain amount of conflict and waste.’”[[41]](#endnote-41) Gurney differs from Allen only insofar that such “conflict and waste” is not only inevitable but also aesthetically desirable. “Helmholtz says that thirds and sixths are melodically and harmonically the most of attractive of intervals,” he declares; yet “[h]armony which dealt in thirds and sixths and avoided discord would very soon pall.”[[42]](#endnote-42) The intuition of recurrence depends upon imperfect recovery: waste is a condition of possibility for rhythm itself.

1. *Swinburne’s poetics of waste*

It is not difficult to see why W. K. Clifford appealed to “The Garden of Proserpine” for an imaginative representation of heat-death, given that poem’s concluding image (“Only the sleep eternal / In an eternal night”). Countless literary allusions might have performed similar work, however; for the apocalyptic prophesy of a frozen futurity, we need go no further than the Book of Isaiah. Literary criticism has, moreover, more often considered Tennyson and Hopkins in a thermodynamic context, given the obvious thematic concerns of their work.[[43]](#endnote-43) Yet I take Swinburne’s relevance to be all the stronger for being—to borrow Gurney’s distinction—presentative rather than discursive. In this respect, I wish to develop the widespread yet frequently impressionistic sense that Swinburne’s verse shares some enigmatic affinity with what we now call dynamical systems theory. With characteristically brilliant concision, Herbert Ticker alternately calls *Tristram of Lyonesse* “a fractal transform of the one aeonic narrative of excitation and equilibrium” and a “blaze across the thermodynamic inane.”[[44]](#endnote-44) In their introduction to the *Major Poems and Selected Prose*, meanwhile, Jerome McGann and Charles L. Sligh contend that “[t]he contemporary relevance of Swinburne’s work springs from its intellectual affinities with a quantum mechanical model of reality, on one hand, and postmodern autopoetical ideas on the other.”[[45]](#endnote-45)

Clifford’s citation does stumble upon a salient feature of Swinburne’s verse, however inadvertently. For the weary river winding to sea returns us to the twinned concepts of waste and fatigue with which this paper has been preoccupied. The word “weary” and its many cognates prove signal instances of what Edward Thomas called Swinburne’s “harem of words, to which he was constant and absolutely faithful.”[[46]](#endnote-46) T. S. Eliot certainly thought as much, complaining that in Swinburne’s verse, “the object has ceased to exist, because the meaning is merely the hallucination of meaning, because language, uprooted, has adapted itself to an independent life of atmospheric nourishment […] we see the word “weary” flourishing in this way independent of the particular and actual weariness of flesh or spirit.”[[47]](#endnote-47) Eliot’s complaint seems to involve a failure of linguistic *reference*: the word multiplies so licentiously that it no longer adequately describes of Sappho. Yet what if the superfluity of weariness proved (self-)performative rather than referential? Eliot is quite right to claim that in Swinburne’s verse “[o]ne is in risk of becoming fatigued by a hubbub that does not march”; unlike him, I number this exhaustion among his finest expressive effects.[[48]](#endnote-48)

 What counts as productively tired verse? By this I do not mean the standard tropes of spleen, *ennui*, *Weltschmerz* and the rest, long since established as indispensable components of the *fin-de-siècle*; rather, I intend the phenomenological apprehension of tiredness. The question seldom arises for the indefatigable literary critic, who (in print at least) quotes selectively, in manageable chunks, between which his motor energy (if not always that of the reader) is magically replenished. Yet while Nicholas Dames has explored the way in which the ever-expanding Victorian novel tested the motor endurance and nervous systems of its avid readers, poetry criticism tends by contrast to treat the “lyrical” suspension of time as its unit of (non-)measurement, even when the poem to hand is a long or very long poem.[[49]](#endnote-49)

Appropriately, my answer takes the form of Swinburne’s *Tristram of Lyonesse* (1882). In part I focus on this work simply because it is a long poem. For *Tristram* continually produces nonlinear phase transitions, where a difference in degree produces a difference in kind: it subjects our vocal and motor systems to an excess, through which they cognize in a manner that the properly rested body cannot. The poem’s various tropes of entropy finally only prove significant within a broader rhythmical economy that acknowledges (indeed depends upon) the invariability and irreversibility of waste. Swinburne thereby actuates what Spencer could only rather nebulously describe: a form of conflictual disequilibrium; a rhythm that emerges through, rather than despite, variation. *Tristram of Lyonesse* engineers this variation within the traditionally closed system of the heroic couplet, which Swinburne here pushes harder and further than any poem before or since.

*Tristram of Lyonesse* is of course more specifically a long narrative poem, which recounts a story whose familiarity justifies Swinburne’s almost total unconcern for for narrative exegesis, suspense or consistency. “So many and many of old have given my twain / Love and live song and honey-hearted pain,” the Prelude declares (239–40), with the strictly superfluous “many and many” suggesting that the reiteration of narrative matters more than its actual content. Apparently climactic moments could be reassembled in a different order, without significant alteration to the feel of the whole:[[50]](#endnote-50) the pair are already in love before they drink the love potion; always already doomed, before respective marriages render their love illegitimate.[[51]](#endnote-51) What counts is not the priority of the sequence, but that it is—like the irreversible second law—a sequence. To the extent that my own reading proceeds in broadly chronological terms, it does so not to summarise plot but to preserve a sense of this linearity.

 With that in mind, the Prelude already contains all that is to come, despite Swinburne having composed in 1870, more than a decade before the publication of the completed work. Particularly relevant in this respect is the device upon which Edmund Gurney focused, the monosyllable. We are familiar with Alexander Pope’s designation of exclusively monosyllable lines (“And ten low words oft creep in one dull line”), which represents both a perceived fault of diction (“low words”) and of rhythm (successive monosyllables tend to upset regular stress-patterning). From its start, *Tristram of Lyonesse* features a remarkably high proportion of exclusively monosyllabic lines,[[52]](#endnote-52) which demonstrate the device’s paradoxical capacity to generate both fleetness and ponderousness. Those elementary single-cell words “life” and “death” feature prominently in such cases: “How sore a life dead love should lead her” (I, 346), “Death that bears life, and change that brings forth seed” (VI, 374), “His bright light heart held half a thought of death” (VIII, 393) and “And peace more strong than death round all the dead” (IX, 514) represent but a small sample.

The Prelude alone contains abundant examples where monosyllables strings generate diametrically opposed effects. There we find lines leavened with prepositions and pronouns:

Ah, and these too felt on them as God’s grace (189)

Or a time that crawls so slowly that it may stay even mortality, as in this remarkable line whose rhythmical excess culminates with seven successive stresses:

And bid the short-lived things, long dead, live long, (83)

Sometimes the effect lies somewhere between the two poles. Take the narrator’s pledge to recover the Tristan and Iseult’s animating love, delivered in a clump of monosyllables:

 Was such not theirs, the twain I take, and give

 Out of my life to make their dead life live

Some days of mine […] (235–37)

The second line begins with lightly accented pronouns and prepositions, in which the first iteration of “life” is but an isolated beat; its latter half, by contrast, contains a series of grinding consecutive stresses (“dead life live”) whose very heaviness signals the effort of the simple voice to raise the departed.

 We begin to gain some sense of the attraction that “The Garden of Proserpine” held for W. K. Clifford, with its weary stream winding to sea. For all Helmholtz’s emphasis upon the conservation of force, fatigue is an ineradicable consequence of living. That fact causes us in different moods to desire that it be brought violently to an end; or for us to continue living not just despite but because of our languor, as if living it fully might recycle what had been waste product, or afford a perverse pleasure to irreparability. Once they have made their delayed entrance, Tristram and Iseult further extend this complex pattern of feeling. The opening to canto III, for example, finds Tristram quoting back to himself the words that he had pledged to Iseult three years previously, at the close of the preceding section (‘“As the dawn loves the sunset I love thee”’ (II, 468; III, 1)). Yet that very self-quotation, across a distance of time in which he happens to have married his lover’s namesake, Iseult of Brittany, exposes a world that “dies of loving.” That bleak prospect unfolds through Tristram’s long ensuing monologue, which from the start pushes the monosyllabic tendency still further than did the Prelude:

 In her I lived, and in me she is slain,

 Who loved me that I brought to her doom,

 Who loved her that her love might be my tomb.

 As all the streams on earth and all fresh springs (III, 10–13)

The aerodynamic propulsion of this verse enjambs freely into a direct echo of “The Garden of Proserpine”: these streams similarly “tend toward the sea, all born most high / Strive downward, passing all things joyous by, / Seek to it and cast their lives in it and die” (20–22). At such moments, Tristram and Iseult’s love potion seems but one instance of a universal tendency that we have all already begun to taste.

 Yet Tristram’s premonition of mortality is never stronger than when he finds himself defying that very process. If the wheel of nature turns continually, he continues, then there is after all “surely no irrevocable death” (III, 34), a most Tyndallian conclusion. Unlike Tyndall, however, Tristram’s verse monologue registers painfully the breaks necessary for the world to return as such, as in another supremely weary couplet:

 Day after day night comes that day may break,

 And day comes back for night’s reiterate sake. (III, 35–36)

Yet Tristram’s effort to stave off death is premised on the fact that “day” must continually “break” in order to return as such. His monologue labours increasingly under its awareness of this necessary periodic rupture, until it itself breaks with the sudden apostrophe, “‘Would God yet dawn might see the sun and die!’” (53). This plea, once more emphatically monosyllabic, seems fatally to contradict his pledge to love Iseult as the dawn loves sunlight. That, at least, is the conclusion of the poem’s narrator, who tells us that our Tristram’s “soul, / That had seen all those sightless seasons roll / One after one, wave over weary wave, / Was in him as a corpse in its grave” (58–61).

But the narrator spears here to overlook the extent to which such weariness represents neither terminus nor antonym to Tristram’s desire; it rather forms desire’s essential constituent. For that love was from the first already aware of its mortality: its essential weariness expresses the paradoxical desire at once to protract and abolish the passage of time. How else to explain the fact that, still fondly clinging to memory at the start of his monologue, Tristram states that he loves Iseult “as the worn-out noon / Loves twilight” (III, 5)? Indeed, even before Tristram’s marriage, both amorous parties had unsparingly perceived their common situation, as Iseult demonstrates in another monosyllabic surge: “Live thou and have thy day, and year by year / Be great but what shall I be? Slay me here; / Let me die not when love lies dead, but now / Strike through my heart: nay sweet, what heart hast thou?” (II, 398–402).

This dialectic of weariness, expressed both as a satiety that cannot renounce itself and as the desire for violent change, explains other passages from this second canto that would otherwise seem mere paradoxes. Full in the first flush of love, Tristram’s vision seems “More fair than heaven doth in some tired saint’s dreams” (II, 120); shortly thereafter, he compares that same love to “a rose athirst that pants for drouth / Even while it laughs for pleasure of desire” (II, 149–150), where a delicious ambiguity attaches itself to “pants for.” One of the biblical texts that Swinburne is fond of quoting is Isaiah 32:2 (which the King James Bible renders “Each will be like a hiding place from the wind, a shelter from the storm, like streams of water in a dry place, like the shade of a great rock in a weary land”).[[53]](#endnote-53) The Hebrew עֲיֵפָֽה׃ [*‘ă-yê-pāh*] has been translated variously as “weary,” “thirsty,” “arid” and “hot.” When Sappho in “Anactoria” states that she is weary of love, she therefore means at once that she is weary of it, that she is sated of it, that she is empty of it, and that she is desirous of it.[[54]](#endnote-54)

The passages are that I have cited above are representative in the strongest sense. Yet abstracting them from their context is also fatal to their effect, not because we need a sense of a whole to which these parts belong (Tristram’s concluding apostrophe contains within itself the whole drama) but rather because one needs to have cumulatively experienced many such representative passages so as to intuit (rather than abstractly cognize) the poem’s complex weariness. To do full justice to such passages would require citation of the entirety of the poem, an expedient that would be more at home in a short story by José Luis Borges than a piece of literary criticism.

As it is, I can do more than trace the most acute of such repetitions, as in canto V, the shortest and most intensely distilled episode, in which Iseult conducts a night-vigil for her absent lover. Once again internal repetition seeks to join two days that are separated this time not by time but by space:

Ah love, are thy days my days, and to thee

Are all nights like as my nights? does the sun

Grieve thee? art thou soul-sick till day be done,

And weary till day rises? is thine heart

Full of dead things as mine is? (V, 106–110)

Weariness here assumes prosodic importance, as the single exception within nine otherwise exclusively monosyllabic lines. And once again it functions as a pivot, upon which Iseult’s desire turns from that which would be brought to an end, to that which lives once more: “Ah, what years / Would I endure not”, she continues, “For all these windy weary hours of earth? / One, but one hour from birth of joy to death” (V, 239–47).

This conversion (whereby the weariness *of* desire becomes the weariness that *is* desire) distinguishes such passages from mere prosodic mimesis, according to which metrical effects reflect entities or states that have already been assimilated: the grinding lines of Elizabeth Barrett’s Browning’s “Cry of the Children,” for instance, “embody” the factory machinery to which the poem’s infant subjects were doomed. Similar instances of a “tired” mimetic prosody abound, as in the leaden stresses of Rudyard Kipling’s “Boots” (“We’re foot – slog – slog – slog – sloggin’ over Africa”). Swinburne’s rhythmical excess, by contrast, pushes weariness so far as to transfigure the experience thereof. Carried to the limits of our own vocal, emotional and motor endurance, we desire both the termination and continuation of a pattern that we no longer take for granted.

1. *From weariness to waste*

It is surely no coincidence that Swinburne should drastically test motor endurance at the very moment that European society (under the auspices of the conservation of force) regarded waste as both a moral and a technocratic failure. That tendency is widespread enough to encompass aesthetics: in *The* *Principles of Success in Literature*, George Henry Lewes compares the efficacious author to an efficient author:

The analogy of a machine is perfect. In both cases the object is to secure the maximum of disposable force, by diminishing the amount absorbed in the working […] waste is inappreciable in writing of ordinary excellence, and on subjects not severely tasking to the attention; but if inappreciable, it is always waste; and in bad writing, especially on topics of philosophy and science, the waste is important.”[[55]](#endnote-55)

Even those late nineteenth-century readers who set out with half a mind to praise Swinburne’s proliferation could not resist a note of censure: “Swinburne is an inveterate waster,” declared Oliver Elton, “but then he has more lyrical wealth to waste than almost anybody; he has as much as Shelley, more than Herrick.”[[56]](#endnote-56) (I rather like Elton’s designation, not least because “waster,” along with the glorious “wastoid,” survived into my adolescence as a term of abuse, despite my fellow students feigning disdain for productive activity of any kind: the work ethic proves surprisingly resilient.)

I would modify Elton’s claim only so as to specify that Swinburne’s “lyrical wealth” positively requires wasting. For the weariness that I have traced at appropriate length opens up a broader category of excess. (Swinburne frequently enjoys the alliterative link between “weary” and “waste,” which accentuates their near-tautological reference.) “Waste” appropriately proves another of the more furtive members of Swinburne’s lexical harem, whose significance once again changes across a series of rhythmical disequilibria: a series of waste-effects. These emerge from the first canto, which Swinburne published separately in 1877. It is by some distance the longest of all the cantos, due in large part to Swinburne’s mercifully short-lived endeavor to contextualize the larger Arthurian world to which his lovers belong. Iseult poses Tristram a series of thinly veiled questions regarding the beauty of Guinevere, and the exploits of Merlin, Lancelot, which finally serve the sole purpose of bringing the pair close. Henceforth Swinburne discovers his exclusive theme, as the spray of the sea (and by chiasmic association Tristram and Iseult), “bloomed like blossoms cast by God away / To waste on the ardent water; swift the moon / Withered to westward as a face in swoon / Death-stricken by glad tidings” (I, 428–431).

This remarkable first flush of desire consolidates the association between blossoms and waste, so that superfluity generates a perpetual yield:

 And as the august great blossom of the dawn

 Burst, and the full sun scarce from sea withdrawn

 Seemed on the fiery water a flower afloat,

 So as a fire the mighty morning smote

 Throughout her, and incensed with the influent hour

 Her whole soul’s one great mystical flower

 Burst, and the bud of her sweet spirit broke

 Rose-fashion and the strong spring at a stroke

 Thrilled, and was cloven, and from the full sheath came

 The whole rose of the woman red as flame:

 And all her Mayday blood as from a swoon

 Flushed, and May rose up in her and was June. (I, 461­–472)

Note the manner in which enjambment does not so much negate the rhythmical conventions of couplet form, so much as he delays (and thus amplifies) their force. The first clause breaks belatedly, after the line-end, with an emphatic stress “Burst” that is the stronger for being deferred. The ensuing enjambed verbs are more powerful still: the second “Burst,” occurring after an answering rhyme that refuses to complete the syntactical unit, terminates sense with glorious force. “Thrilled” performs similar work, while “flushed” also recuperates the consonantal energies within “flame.” We are accustomed to conceive of a binary opposition between end-stopped and enjambed lines: yet where Swinburne flouts the sanctity of the line, this hardly makes these enjambments free. Unlike Milton’s epic enjambment, “burst,” “burst,” “thrilled” and “flushed” all defer the anticipated pause by but a single syllable. The smallest transgression often communicates the keenest excess. Swinburne, in short, does not dismantle the heroic couplet, so much as syncopate it.

Such enjambment (of both the restricted and the free kind) proves but one rhythmical waste-effect, by means of which Swinburne’s verse exceeds a limit so as to regenerate itself. Central among these is hypermetricality, which first emerges emphatically as such in Book II, where King Mark, enamored of his new wife Iseult, rides daily in the woods with her. Just as the monarch rides “Hard by her rein,” so the meter begins to chafe, as the ensuing passage tests the poem’s previously strict adherence to decasyllables:

 And the day

 Sprang: and afar along the wild waste way

 They heard the pulse and press of hurrying horse-hoofs play: (II, 241­–42)

Here waste not only names but also performs itself, in the form of the first triplet following more than a hundred lines of dogged couplets. And whereas in the previous example we might let slide syllabic excess on account of accentual equivalence, here the alliterated //*h*// and //*p*// phonemes fairly flaunt the line’s hypermetricality, in a simultaneous accentual and syllabic superfluity.

 Such overt manipulation of hypermetricality emerges most fully in the sixth canto, “Joyous Gard,” which itself reads as one long passage of generative rhythmical excess. The canto names “the full deep glorious tower that stands / Between the wild sea and the broad wild lands” (VI, 199–200), in which the two lovers shelter following their enforced separation. The term “waste” once again marks and induces prosodic excess:

 For all this wild sweet waste of sweet vain breath

Thou knowest I know thou hast given me life, not death. (VI, 440–41)

Such a couplet deepens the suggestion that Swinburne’s rather phallic “full deep glorious tower” does not in reality exist in isolation from “the broad wild lands,” but rather as their necessary dialectical counterpart. Verbal parallelism (“Thou knowest I know”) again demands that we recognize the second line’s superfluity as such; and so doing emerges a serious metrical joke to unfold. Swinburne’s “breath” / “death” rhyme counts as only one of the most prominent instances of willfully unoriginal rhyming that he glories in pushing towards further unacceptability; *Tristram of Lyonesse* is parasitic both of literary tradition and of itself, whose precedents it gleefully plunders.[[57]](#endnote-57) We cannot read “breath” without being cued, automatically, for its sister; and yet Swinburne tempts us for just the slightest moment into concluding the line on its designated tenth syllable, and thus replace “life” for “death” in flagrant contravention of the rhyme-scheme. And even when “death” does succeed, as succeed it must, its belatedness means that we cannot quite cancel the force of the living, alternative line-ending; rather, it needs to feed off an excess in order to exist, and in so doing insinuates a regenerative force at the very moment that Tristram declares, emphatically, “not death.”

 There is accordingly a real question as to how such a poem (in which each violent break is both death-sentence and condition for painful rebirth) can ever truly end. Rhythmical excess again colors the answer. We have already observed a number of prominent infringements of Pope’s stipulations regarding proper couplet form—stipulations that Swinburne must have loved ardently, in order to derive such pleasure from their transgression. Those infringements have included the gratuitous use of derivative rhyme, the access of free or restricted enjambment, the outbreaks of hypermetricality, and the periodic swelling of couplets into triplets. Such triplets are significantly scarce throughout *Tristram of Lyonesse*. Just prior to what will turn out to be his last, Tristram summons the wife whose love he has so little reciprocated:

Go, Ganhardine, with tiding of the vow

That bids me turn aside for one day’s strife

Or live dishonoured all my days of life,

And greet for me in brother’s wise my wife,

And crave her pardon for my knighthood’s sake (VIII, 366–70)

If the effect of this triplet differs substantially from its predecessors, it is to a large part because it disrupts one of Swinburne’s most prominent derivative rhymes, up there on a par with “breath” / “death,” “eyes” / “skies” and the rest. “Life” and “strife” so reliably generate one another that the two come to stand in matrimonial relationship, which this interloper (“wife”) then converts into an irregular *ménage à trois*. Or perhaps the marital metaphor is ill suited: for the stable relation between “life” and “strife” is only stable in a peculiar sense. That single rhyme microcosmically expresses what I have taken to be the poem’s contention: that life must depart from itself (to the point of discord) to continue living. “Wife,” then, does not so much unsettle this already volatile relation, so much as attempt to impose a neat synthesis upon it, just as Tristram would seek to expiate the sin that constituted his only reason for living.

The remainder of the book grapples with this dilemma, which might be distilled into the question whether we rhyme “life” with “strife” or “wife.” Until now the former option has nearly always prevailed.[[58]](#endnote-58) But in the absence of any more synthetizing triplets, the verse now swings between both alternatives: Tristram has barely issued his summons when he is prone to another erotic apprehension of death that cannot but recall his mistress, the other Iseult (“each glad limb became / A note of rapture in the tune of life, / Live music mild and keen as sleep and strife” (504–06)). The ninth and final canto, which finds Tristram labouring under his mortal wound, continues this theme of tuneful dissonance: Fate is Lord of all,

Till joy be found a shadow and sorrow a breath

And life no discord in the tune with death,

But all things fain alike to die and live

In pulse and lapse of tides alternative,

Through silence and through sound of peace and strife,

Till birth and death be one in sight of life; (IX, 16–21)

The “life” / “strife” rhyme then recurs, in a cycle of quickening repetition (57–58, 129–130). Yet Iseult of Brittany having returned to her husband, she overhears his instructions to bring back her namesake, Tristram’s mistress—a stratagem whose success is to be measured by the famous white or black sails. From this point on, “wife” once again interposes itself into Swinburne’s volatile rhyme-scheme, chiming successively with “life” (179–80, 265–66)) and “strife” (211–212). Throughout this extended concluding passage, Swinburne’s other pet rhymes (“breath” / “death,” “sinned” / “wind”) recur with if anything greater intensity that usual—in which context the sundering of “life” and “strife” (comparable to that of the poem’s protagonists) is felt as bereavement. This displacement of rhyme reaches a peak, as Iseult of Brittany continues to eavesdrop her husband’s expressions of love for his mistress, so comparable in their intuition of death to all those that have come before. Her response is crucial:

 “[…] Come therefore, let us twain pass hence and try

 If it be better not to live but die,

 With love for lamp to lead us out of life.”

 And on that word his maiden wedded wife,

 Pale as the moon in star-forsaken skies

 Ere the sun fill them, rose with set strange eyes

 And gazed on him that saw not: and her heart

 Heaved as a man’s death-smitten with a dart

 That smites him sleeping, warm and full of life:

 So toward her lord that was not looked his wife,

 His wife that was not […] (IX, 373–83)

Iseult of Brittany forces her husband’s dangling “life,” full of the apprehension of death, to rhyme with her own “wife.” Yet when the same rhyme recurs barely five lines later, it barely has time to consolidate the link than it is definitively refuted (“His wife that was not”). Iseult of Brittany goes on, of course, to lie about the color of the sails, dooming our two protagonists to die unreconciled. Yet this mutual distance is their paradoxical triumph, just as it had proven on so many previous occasions. The poem knows it: we see it in the restoration of that most vital of rhymes, “life” and “strife” (491–92, 507–08). Where Pope imagined the heroic couplet as a homeostatic system, Swinburne demonstrates its decay into conflictual disequilibrium; he does this not through cancelling the conventions of the form, but through measurably exceeding them. However much the closing lines claim that our protagonists are no longer be subject to “sleepless languor with its weary wing” (503), they live on in our own worldly exhaustion, our own desire—even at this terminal stage in the poem—both to protract and to arrest a rhythmic pattern that has been carried to its very limit.

1. *Swinburne’s discord*

However rechargeable are the batteries of literary criticism (as it devours the given text in digestible chunks, taking proper pauses between each act of hermeneutic virtuosity), my own body can turn from *Tristram of Lyonesse* only with a sense of positive exhaustion, which makes all immediate thought of “broader relevance” difficult to envisage. This difficulty *is* Swinburne’s broader relevance. My emphasis upon rhythmical excess differs starkly from Yopie Prins’s perception of punishing metrical regularity, where the recurrent beat or foot stands in for the smack of the whip. Prins ties an “abstract” metrical pattern to poems in which Swinburne himself foregrounds beating:

 Chief the Stripling Songster’s Breech invites

 The full Performance of thy frequent Rites,

 Most the Nurslings of the Muse require

 The Lash that sets their lyrick Blood on Fire

 The Lash that ever when they cry keeps Time,

 When Stroke to Stroke responds in glowing Rhyme.

 And still the humbled Bottom hails the Rod sublime,

 Till Heart & Head the rhythmic Lesson learn

 From Wounds that redden & from Stripes that burn,

 As Twig by Twig imprints the Crimson sign in turn.[[59]](#endnote-59)

This extract does indeed begin regularly enough, with a couplet form that is more predominantly iambic than anything we find in *Tristram*. Yet Prins overlooks the most significant moment in this extract, where the compulsive regularity of these lines generates a rhythmical excess that negates it: note how the pentameters swell out into the hypermetrical “As Twig by Twig imprints the Crimson sign in turn.” As we have seen, such generative prosodic waste is as nothing in comparison to *Tristram of Lyonesse*, which in addition to syllabic accessalso generates superfluity of accent and rhyme. Were a link between metrical regularity and sadomasochism truly to obtain, Pope’s far more predictable lines would represent the true specimens of erotic perversity!

Swinburne therefore sets verse to work less as a mechanism of punishing regularity than as what Edmund Gurney saw as a reservoir of energy, in which some degree of waste or “imperfect economy” is necessary for the very apprehension of rhythmical succession. There can be no perfect recovery that would enable a new fall of the whip (or accent) to be perfectly equivalent with the last. Such factors make Swinburne’s verse both an invitation and a challenge to forms of rhythmical description that move beyond standard foot-based equivalence and substitution. Richard Cureton attempts to do just this, by capturing complex rhythmical gestalts that exist at a larger unit than the individual foot or line.[[60]](#endnote-60) As the above analysis has shown, however, such a gestalt would in the case of *Tristram of Lyonesse* encompass nothing short of the poem in its entirety, between whose wide bounds waste and weariness does its work. Such a drastically enlarged scale, however, calls into question what it is to make a rhythmical equivalence in the first instance.

 This successive and variegated experience of fatigue constitutes Swinburne’s significance for the broader scientific and rhythmical culture that this chapter commenced by outlining. In *The Case of Wagner*, Friedrich Nietzsche declared that “Wagner is a great corrupter of music. With it, he found the means of stimulating tired nerves, — and in this way he made music ill. In the art of spurring exhausted creatures back into activity, and of recalling half-corpses to life, the inventiveness he shows is of no mean order.”[[61]](#endnote-61) Let us leave to one side Nietzsche’s animus; this verdict offers a fine sense of the manner in which Swinburne’s art addressed a culture in which he was similarly steeped. His expressive affinity with Wagner therefore cannot quite be summarised through the feature of harmony, as Jerome McGann attempts; it more fundamentally concerns dissonance, whose threshold, as we have repeatedly seen, proves inseparable from the limit of corporeal endurance.[[62]](#endnote-62)

Unlike the lyric, with its self-withdrawing capacity for temporal suspension, the long poem conveys the temporal irreversibility that lies at the heart of the second law of thermodynamics. Where Helmholtz employed the conservation of energy as a charm to ward off the consequences of entropy, Swinburne not only demonstrates the inevitability of waste within a closed system (whether metrical or biological); he strives also to render such a predicament habitable. Where John Tyndall inspired a litany of attempts to prove that rhythmical transmission could recuperate even the unseen or departed, *Tristram of Lyonesse* demonstrates that the force that binds together two bodies (or a couplet) necessarily produces excess or discord. His unwillingness to minimize the force of such strife denies Swinburne the consolation of an eternal hereafter, or the glib materialism that finds in every death a rebirth. His poetry was, and continues to be, all the stronger a consolation for all that.

1. I am grateful to Gillian Beer and to the anonymous readers of this essay, whose suggestions have materially improved its current form. [↑](#endnote-ref-1)
2. David Duncan, *The Life and Letters of Herbert Spencer*, 2 Vols. (New York: D. Appleton & Company, 1908), I, 136. [↑](#endnote-ref-2)
3. Richard Hofstadter, *Social Darwinism in American Thought* (Boston, MA.: Beacon Press, 1955). [↑](#endnote-ref-3)
4. Clarke cites Tyndall’s letter in *Energy Forms: Allegory and Science in the Era of Classical Thermodynamics* (Michigan: University of Michigan Press, 2001), where he concludes that “the notion of energy dissipation […] plac[ed] a chill on his rosy evolutionary scenario” (p. 67); we hear little of his work from this point on. [↑](#endnote-ref-4)
5. For a demonstration of the extensiveness of this concept for Spencer, see his autobiographical appendix to David Duncan, *The Life and Letters of Herbert Spencer*, II, 328. [↑](#endnote-ref-5)
6. Herbert Spencer, *First Principles of a New System of Philosophy* (London: Williams and Norgate, 1862), p. 317n. [↑](#endnote-ref-6)
7. *The Life and Letters of Herbert Spencer*, II, 162–63. [↑](#endnote-ref-7)
8. Most work tends to engage with the second law as theme or trope rather than technical effect, and predominately treat prose rather than verse. See Gillian Beer, *Open Fields: Science in Cultural Encounter* (Oxford: Oxford University Press, 1999), pp. 219–241; Michel Serres, *Hermes: Literature, Science, Philosophy* (Baltimore: Johns Hopkins UP, 1982), pp. 71–83; Bruce Clarke, *Energy Forms: Allegory and Science in the Era of Classical Thermodynamics* (Michigan: University of Michigan Press, 2001). [↑](#endnote-ref-8)
9. Samuel Johnson, “Rhythmical,” in *A Dictionary of the English language, in which the words are deduced from their originals*, 2 Vols. (London: 1755–56). [↑](#endnote-ref-9)
10. Anton Rabinbach, *The Human Motor: Energy, Fatigue and the Origins of Modernity* (California: University of California Press, 1992), p. 68. [↑](#endnote-ref-10)
11. John Tyndall, *Heat considered as a mode of motion* (Cambridge: Cambridge University Press, 2014), p. 434. The edition cited above reprints the original 1863 publication; interestingly, Tyndall would remove the passage from later editions, suggesting an equivocation regarding the status of the conservation of force. [↑](#endnote-ref-11)
12. Ibid., p. 296. [↑](#endnote-ref-12)
13. Ibid., p. 268. [↑](#endnote-ref-13)
14. Ibid., 110n. [↑](#endnote-ref-14)
15. Friedrich Kittler, *Gramophone, Film, Typewriter*, trans. Geoffrey Winthrop-Young (Stanford, Calif.: Stanford University Press, 1999), p. 24. [↑](#endnote-ref-15)
16. Sidney Lanier, *The Science of English Verse* (New York: Charles Scribner’s Sons, 1880), p. 248. [↑](#endnote-ref-16)
17. Ibid. [↑](#endnote-ref-17)
18. Ibid., 250. [↑](#endnote-ref-18)
19. For obvious examples of Spencer and Helmholtz’s influence, see Robin Veder, *The Living Line: Modern Art and the Economy of Energy* (Hanover, New Hampshire: Dartmouth College Press, 2015). [↑](#endnote-ref-19)
20. *The Life and Letters of Herbert Spencer*, I, 306. [↑](#endnote-ref-20)
21. Bliss Carman, “Personal Rhythm,” in *The Friendship of Art* (Toronto: Copp, Clark Co., 1904), pp. 182–89 (p. 185). [↑](#endnote-ref-21)
22. Ibid., 182–84. [↑](#endnote-ref-22)
23. Balfour Stewart and P. G. Tait, *The Unseen Universe, or Physical Speculations on a Future State* (New York: Macmillan and Co., 1875), p. 48. See p. 152 for a broader response to the ventriloquized objection that “[y]our doctrine of immortality does violence to that great principle, the conservation of energy”; Balfour and Stewart respond “that when we assert the conservation of energy it is as a principle applicable under special limitations,” namely the passage of energy through an “ether” into regions where it cannot readily be detected. [↑](#endnote-ref-23)
24. Ibid., p. 219. [↑](#endnote-ref-24)
25. Ibid., p. 234. [↑](#endnote-ref-25)
26. Ibid., p. 243. [↑](#endnote-ref-26)
27. William Fletcher Barrett, *On the Threshold of the Unseen: an examination of the phenomena of spiritualism and of the evidence for survival after death* (New York: E. P. Dutton & Company, 1917), p. 39. For a fuller account of his life and work, see Richard Noakes, “The ‘Bridge Which Is Between Physical and Psychical Research’: ­William Fletcher Barrett, Sensitive Flames, and Spiritualism,” *History of Science*, 42 (2004), 419–64. [↑](#endnote-ref-27)
28. See Henri Bergson, *Mind-Energy: Lectures and Essays* (New York: Henry Holt and Company, 1920), pp. 75–103. James wrote a tribute upon Myers’s death, which was published in the *Proceedings of the Society for Psychical Research*, 17 (1903), 13–23. [↑](#endnote-ref-28)
29. pp. 288–289 [↑](#endnote-ref-29)
30. Ibid., p. 164. [↑](#endnote-ref-30)
31. See ibid., pp. 153, 154, 155. [↑](#endnote-ref-31)
32. Ibid., p. 175. [↑](#endnote-ref-32)
33. Ibid., pp. 155–56. [↑](#endnote-ref-33)
34. Maxwell’s poem is printed in Lewis Campbell and Matthew Garnett’s *The Life of James Clerk Maxwell: with a selection from his correspondence and occasional writings; and a sketch of his contributions to science* (London: Macmillan, 1882), pp. 649–51. [↑](#endnote-ref-34)
35. See Gowan Dawson, “Victorian Periodicals and the Making of William Kingdon Clifford’s Posthumous Reputation,” in *Science Serialized: Representations of the Sciences in Nineteenth-Century Periodicals*, ed. Geoffrey Cantor and Sally Shuttleworth (Cambridge, Mass.: The MIT Press, 2004), pp. 259–84. [↑](#endnote-ref-35)
36. *Algernon Swinburne: The Critical Heritage*, ed. Clyde K. Hyder (London: Routledge, 1970), p. 190. Myers’s essay was first published in *Nineteenth Century*, 33 (January 1893), 93–111. [↑](#endnote-ref-36)
37. Ibid., p. 196. [↑](#endnote-ref-37)
38. “Poets, Critics and Class-Lists,” p. 158n. [↑](#endnote-ref-38)
39. Edmund Gurney, *The Power of Sound* (London: Smith, Elder & Co., 1880), p. 128. [↑](#endnote-ref-39)
40. Edmund Gurney, *The Power of Sound* (London: Smith, Elder & Co., 1880), p. 129n. Gurney elaborates upon such concerns in an Appendix, “On Discord.” [↑](#endnote-ref-40)
41. Ibid., 557. Gurney is quoting from Allen’s *Physiological Aesthetics* (London: Henty S. King & Co, 1877). [↑](#endnote-ref-41)
42. Ibid., 148. [↑](#endnote-ref-42)
43. Barri J. Gould’s recent *ThermoPoetics* (Cambridge, Mass.: MIT Press, 2010) proves characteristic in taking Tennyson as the exemplary poet in this context (Swinburne is not present). It does so by associating him with what I have identified as the first response to thermodynamics, which emphasises the conservation of force. Tennyson reflects “[t]he critical shift from *waste* to *vast*ness—etymologically linked words sharing the Latin source *vastus*—marks a rethinking of the universe, not as waste space, but as a very large, closed system in which things are never actually lost, but merely diffused” (p. 57). In “Death Blots Black out’: Thermodynamics and the Poetry of Gerard Manley Hopkins,” *Victorian Poetry*, 40. 2 (Summer) 2002, 131–156, Jude V. Nixon similarly reads “That Nature is a Heraclitean Fire and of the comfort of the Resurrection” as proof of Hopkins’s terror of a closed system tending toward dissolution, which is finally not so closed that God cannot alter its laws. I differ from both approaches through delineating another response to the second law than the conservation of force, and through focusing upon entropy or redundancy not as content, but rather within the structure of verse. [↑](#endnote-ref-43)
44. Herbert Tucker, *Epic: Britain’s Heroic Muse, 1790–1910* (Oxford: Oxford University Press, 2008), p. 524. Tucker refers to Swinburne’s interest in “[t]he basic elements of existence, whether fresh come from creation or at the spent point of apocalyptic finish or entropic subsidence” (p. 523); it is unclear whether these two specifications (apocalypse and entropy) simply represent different figurative expressions of the same idea. [↑](#endnote-ref-44)
45. Algernon Charles Swinburne, *Major Poems and Selected Prose*, ed. Jerome McGann and Charles L. Sligh (New Haven: Yale University Press, 2004), pp. xxii; subsequent references are given parenthetically in the text as *MP*. [↑](#endnote-ref-45)
46. Edward Thomas, *Algernon Charles Swinburne: A Critical Study* (London: Secker, 1912), p. 13. [↑](#endnote-ref-46)
47. T. S. Eliot, *The Sacred Wood: Essays on Poetry and Criticism* (London: Faber and Faber, 1967), p. 127. [↑](#endnote-ref-47)
48. Ibid., p. 17. [↑](#endnote-ref-48)
49. Nicholas Dames, *The Physiology of the Novel: Reading, Neural Science, and the Form of Victorian Fiction* (Oxford: Oxford University Press, 2007). [↑](#endnote-ref-49)
50. Mary Byrd Davis argues that Swinburne in actual fact took great effort to work together the various source material; yet she is nonetheless forced to confess that the narrative “telescoping,” continual flashbacks and total omission of several central narrative strands and secondary characters makes the resulting work “difficult to follow” (“Swinburne’s Use of his Sources in *Tristram of Lyonesse*,” *Philological Quarterly*,55.1(Winter 1976), 96–112 (102). [↑](#endnote-ref-50)
51. As Byrd Davis notes (99), the libretto to Wagner’s *Tristram*—which Swinburne read in 1872 at the latest—is the only source that suggests that Tristan and Iseult were already in love before drinking of the potion. Tucker’s claim that the love-potion caused their love seems unlikely. [↑](#endnote-ref-51)
52. Adelaide Crapsey sought to apply rigorous measurement to such features, tabulating the proportion of polysyllabic words across the output of a number of poets. Swinburne characteristically employs fewer than 3% of words with three or more syllables, a figure that is dwarfed by Pope and Milton, among others; in Book VI of *Paradise Lost*, for example, we scale the empyrean heights of 9.03% (Adelaide Crapsey, *A Study in English Metrics* (New York: Alfred A. Knopf, 1918), pp. 21–23). [↑](#endnote-ref-52)
53. In his 1867 review of Matthew Arnold’s verse, Swinburne writes: “To the lyrics which shall serve as water-springs and pastures I shall have to pay tribute of thanks in their turn; but first I would say something of that strain of choral philosophy which falls here ‘as the shadow of a great rock in a weary land’” (“Matthew Arnold’s New Poems,” in *Swinburne as Critic*, ed. Clyde K. Hyder (London: Routledge and Kegan Paul, 1972). [↑](#endnote-ref-53)
54. In this respect, the readings that I offer here depart from the imagined interlocutors of Jerome McGann’s *Swinburne: An Essay in Criticism* (Chicago: University of Chicago Press, 1972). “Murdoch” and “Karnahan” discuss the lines “Is it with soul’s thirst or with body’s drought / That summer yearns out sunward to the south…?”: the former strikes a note reminiscent of T. S. Eliot, asking “what point does an impossible question like this serve?” Karnahan replies “Celebration. The question calls a blessing down upon spirit and flesh, summer and winter” (p. 155). Swinburne’s “drouth” does indeed serve a point, one that is, however, more complex than this benign optimism. [↑](#endnote-ref-54)
55. George Henry Lewes, *The Principles of Success in Literature* (Boston: Allyn & Bacon, 1891), p. 129. [↑](#endnote-ref-55)
56. Oliver Elton, *A Survey of English Literature 1780–1880*, 4 Vols. (New York: Macmillan, 1920), IV, 55. [↑](#endnote-ref-56)
57. I will not labour to chronicle the many bad poems and rhyming dictionaries in which “breath” / “death” and familiar company arise; it is both sufficient and of independent interest to note that Skelton anticipates the “wife” / “strife” rhyme that I will explore below in more detail, at the very moment that *Philip Sparrow* turns to the Tristan legend: “Of Tristram, and King Mark, / And all the whole work / Of Belle Isolde his wife, / For whom was much strife” (641–44). [↑](#endnote-ref-57)
58. The word “strife” occurs twenty-four times in the whole poem; in eighteen of those occurrences, it rhymes with “life.” [↑](#endnote-ref-58)
59. Swinburne, *The Flogging Block*, cited in Yopie Prins, *Victorian Sappho* (Princeton: Princeton University Press, 1999), p. 152. [↑](#endnote-ref-59)
60. Richard Cureton, *Rhythmic Phrasing in English Verse* (London: Longman, 1992); Philip Hobsbaum, *Metre, Rhythm and Verse Form* (London: Routledge, 1996). [↑](#endnote-ref-60)
61. Friedrich Nietzsche, *The Case of Wagner*, *Nietzsche Contra Wager and Selected Aphorisms*, trans. Anthony M. Ludovici (London: T. N. Foulis, 1911), p. 5. [↑](#endnote-ref-61)
62. Jerome McGann, “Swinburne, Wagner, Baudelaire: Poetry in the Condition of Music,” *Victorian Poetry*, 47.4 (2009), 619–32. In this respect, see also Swinburne’s consecutive roundels, “Concord” and “Discord,” whose various expressive overlaps suggest a dialectical relation rather than a stark opposition. [↑](#endnote-ref-62)