

*Rhythmanalysis* describes those philosophical attempts to take rhythm as more than an object of study, transforming it into a method. Rhythmanalysis understands both natural and cultural processes in terms of rhythm. It stands as an interesting example where the history of philosophy takes on a sonic inflection, becoming infected by musical metaphors in an attempt to approach something that eludes it. Rhythmanalysis often installs itself ontologically prior to the division of space and time, occupying the domain of intensive matter. According to recent accounts, the term *rhythmanalysis* was invented in an unpublished 1931 text by a Brazilian philosopher, Pinheiro dos Santos. Dos Santos sought an ontology of vibration, where vibration at the molecular, or even deeper at the quantum, level constitutes the fundamental yet abstract movement of matter.

This mantle was taken up by French philosopher of science Gaston Bachelard in his 1950 critique of Henri Bergson's concept of continuity, *The Dialectic of Duration*. The chapter entitled "Rhythmanalysis" in Bachelard's text appears to be the most detailed exposition of dos Santos's theory and would prove foundational to Henri Lefebvre's later writings that attempted to move beyond an analysis of the production of space for which he became renowned. Rhythmanalysis, for dos Santos and Bachelard, operates on three levels: physical, biological, and psycho-analytical. Bachelard was keen to avoid a "mystique of rhythm," constructing instead a rhythmic realism.<sup>1</sup> Following dos Santos, he therefore sought to ground rhythmanalysis in early-twentieth-century innovations within quantum physics regarding the particle/wave composition of matter/energy. On a mission

to factor in time to inert conceptions of matter yet in a fashion divergent from Bergson, Bachelard noted that **matter**

**is not just sensitive to rhythms but it *exists*, in the fullest sense of the term, on the level of rhythm.** The time in which matter develops some of its fragile manifestations is a time that undulates like a wave that has but one uniform way of being: the regularity of frequency. As soon as the different substantial powers of matter are studied in detail, these powers present themselves as frequencies. In particular, as soon as we get down to the detail of exchanges of energy between different kinds of chemical matter, these exchanges are seen to take place in a rhythmic way, through the indisposible intermediary of radiations with specific frequencies.<sup>2</sup>

Rhythmanalysis here outlines the remit for a vibrational ontology:

**If a particle ceased to vibrate, it would cease to be. It is now impossible to conceive the existence of an element of matter without adding to that element a specific frequency. We can therefore say that vibratory energy is the energy of existence.** . . . The initial problem is not so much to ask how matter vibrates as to ask how vibration can take on material aspects. . . . It should not be said that substance develops and reveals itself from a rhythm, but rather that it is *regular rhythm* which appears in the form of a specific material attribute. The material aspect . . . is but a confused aspect. Strictly speaking, the material aspect is *realised confusion*.<sup>3</sup>

In deploying rhythmanalysis, Bachelard's theory has interesting implications for a number of philosophical traits that became popular in late-twentieth-century topologically informed philosophy deriving from Bergson. An investigation of some of these divergences is productive in refining the ontology of vibrational force suggested by rhythmanalysis. **For Bachelard, it was rhythm and not melody that formed the image of duration.** He warned of the misleading application of melody as a metaphor for duration. He wrote that music's action was discontinuous, and it was only its perception that provides it with an appearance of continuity by the employment of an always incomplete and deferred temporal synthesis. For him, this synthesis is what gives, in retrospect, melodic continuity to more or less isolated sonic sensations. **By emphasizing rhythm over melody, Bachelard is emphasizing intensity over duration, arguing in fact that duration is merely an effect of intensity,** in opposition to Bergson's notion of interpenetration. The endurance of a sonic event, the length of a note, pertains here to a second order and "entails a kind of acoustic penumbra that does not enter into the precise arithmetic of rhythm."<sup>4</sup> In summary, a key principle of Bachelard's "generalized rhythmic" is the "restoration of form. A characteristic is rhythmic if it is restored. It then has duration through an essential dialectic. . . . If a rhythm

clearly determines a characteristic, it will often affect related ones. In restoring a form, a rhythm often restores matter and energy. . . . Rhythm really is the only way of disciplining and preserving the most diverse energies.”<sup>5</sup>

Like all good rhythmanalysts, Bachelard asserts the basic rhythmic character of matter in vibration. He shows how physics understands the relation between microrhythmic discord (what he calls the “anarchy of vibrations”) and macrolevel stability. Sometimes, however, his emphasis seems firmly placed on rhythmic equilibrium and harmony. For example, he asserts that “when life is successful, it is made of well-ordered times; vertically, it is made of superimposed and richly orchestrated instants; horizontally, it is linked to itself by the perfect cadence of successive instants that are unified in their role.”<sup>6</sup> Bachelard, instead of using rhythmanalysis to flatten nature and culture onto a vibratory plane of consistency, constructs a hierarchy of rhythms and elevates organic life over the anorganic: “We shall come to consider living matter as richer in timbres, more sensitive to echoes, and more extravagant with resonance than inert matter is.”<sup>7</sup> As a rationalist, he depicts the mind as “master of arpeggio.”<sup>8</sup> Yet the question pertains as to why novelty is often produced when rhythms tend toward “far-from-equilibrium” conditions. Moreover, what is the status of the body or, better, the body-mind for this rhythmic methodology?

The concepts of dos Santos and Bachelard were taken up and further developed, expanded, and applied by Henri Lefebvre into what he describes as the “rhythmanalytical project.” Following Bachelard’s problematic dialectical critique of Bergson’s duration, Lefebvre’s sense of rhythm is founded on a temporal philosophy of “moments,” “instants,” or “crises.” Crucially, Lefebvre suggested that rhythm perhaps presupposes “a unity of time and space: an alliance.”<sup>9</sup> For Lefebvre, rhythm consisted of “a) Temporal elements that are thoroughly marked, accentuated, hence contrasting, even opposed like strong and weak times. b) An overall movement that takes with it all these elements . . . through this double aspect, rhythm enters into a general construction of time, of movement and becoming. And consequently into its philosophical problematic: repetition and becoming.”<sup>10</sup>

Usefully Lefebvre generated a concept of the rhythmic body that individuates along the lines of an array of rhythmic compositions such as “isorhythmia (the equality of rhythms) . . . polyrhythmia is composed of diverse rhythms. . . . Eurhythmia . . . presupposes the association of different rhythms [and] . . . arrhythmia, rhythms break apart, alter and bypass synchronisation.”<sup>11</sup> However,

while Lefebvre did much to consolidate a philosophy of rhythm, his cursory comments remain somewhat underdeveloped.

Rhythmanalysis, in this fascinating tradition that stretches from dos Santos to Bachelard and Lefebvre, remains problematic for a number of reasons. In each case, the orientation seems too concerned by the equilibrium of rhythmic systems, by their harmonization in a hierarchy of instants. This limitation seems to leave very little room for rhythmic innovation, stifling the potential to think change and the invention of the new. Perhaps this limit points to the core of Bachelard's argument with Bergson in the *Dialectic of Duration*. While Bergson, in *Matter and Memory*, for example, emphasizes continuity in relation to duration, for Bachelard, time is fractured, interrupted, multiple, and discrete. Bachelard's project was to pursue the paradox of a discontinuous Bergsonism: "to arithmetise Bergsonian duration."<sup>12</sup> While for Bergson, the instant represents an illusory, spatialized view of time, Bachelard wants to prioritize the instant as pure event in a hierarchy of instants. Bachelard argues that in defining duration as a continuous succession of qualitatively different states, Bergson tends to erode the singularity of instants; they merely fade or melt into one another like musical notes. Again, while for Bergson time is visibly continuous, for Bachelard, the microscopic or quantum, that is, invisible, domain of divergences, discontinuities, and vibrations is concealed by the simple movement image. Yet Bergson is thinking of vibration in a very different manner. In *Matter and Memory*, he factored in molecular vibration as that which provides continuous movement to that which appears as static or discrete objects. As Bergson notes, matter "resolves itself into numberless vibrations, all linked together in uninterrupted continuity, all bound up with each other, and traveling in every direction like shivers through an immense body."<sup>13</sup> Once vibrations with frequencies in excess of human perception are acknowledged, Bergson must insist on multiple rhythms of duration to ensure that quality retains priority over quantity. Yet it is exactly these numberless vibrations that Bachelard wishes to arithmetize. This will prove a crucial point of divergence between Bachelard's philosophy of rhythm and Bergsonian theories grounded in continuity. The implications become particularly pointed within debates surrounding the status of the virtual within digital aesthetics. For now, it suffices to say that while Bachelard's insistence on a vibrational ontology is crucial, his reliance on dialectics to reanimate a continuity broken by instants seems to reduce the power of his philosophy of rhythm, relying as it does on polarization over more sophisticated conceptions of relation.

In summary, a rhythmanalytic method potentially offers a foundation for approaching sonic warfare that attempts to sidestep the bifurcation of nature and instead focuses on the fold of the concrete and abstract, the analog and the digital, without the homogenizing sweep that many find in Bergson's continuity of duration, and the analog fetishism of which it is accused. For example, it has become increasingly common, in post-Deleuzo-Guattarian thought, to take flow in itself as the backdrop of the world or, in rhythmic terms, to emphasize the relation between beats at the expense of the event of pulse. This has been an unfortunate emphasis, especially taking into account the machinic conception of the break and flow crucial to the early sections of *Anti-Oedipus* and the role that Bachelard plays in Deleuze and Guattari's theory of rhythm in "Of the Refrain." A route through rhythmanalysis seeks to account for the rhythmic vibration between break and flow, between particle and wave, which postquantum formulations of matter insist on. Yet between Bergson and Bachelard, between duration and the instant, between continuity and discontinuity, a kind of metaphysical deadlock was reached with reverberations that persist into the twenty-first century. For an escape route from this deadlock, it is perhaps necessary to look elsewhere.