Dialectics of Nature


Dialectics of Nature, a collection of texts written by Friedrich Engels between 1873 and 1883, was conceived as a polemical, two-pronged intervention against philosophical (idealist and speculative) conceptions of nature and what he saw as the vulgar materialism of natural sciences of his day. He sought a new synthesis, capable of integrating nineteenth-century scientific discoveries (cell and evolutionary biology, thermodynamics) with an original theoretical conception of the unity of nature, now seen as a material system caught in a relentless process of transformation and following in its course the dialectical laws of movement (which Engels adapted from Hegel).

What attracted Eisenstein to Dialectics of Nature and to Engels’ materialist dialectic was precisely this absolutisation of the concept of movement, from which followed the abolition of any fixed reference in the explanation of natural and material phenomena. In Engels’ conception, movement was seen as the very form of matter; consequently, form had to be grasped as essentially a process of transformation. This materialist dialectical idea of movement appealed to Eisenstein; Jacques Aumont goes so far as to say that Eisenstein fetishised ‘this uninterrupted, universal movement’. He adopted Engels’ affirmation of the Heraclitean vision of the universe as ‘intrinsically correct’, for example, and, in the text ‘Conspectus of Lectures on the Psychology of Art’, condensed it in the formula: ‘First the movement, and then what moves’. The movement of the dynamic totality of matter (of nature as a whole) takes priority over the comprehension of the individual parts out of which this totality is composed. Individual objects in nature become intelligible when they are seen in their interconnectedness and
as expressive of a more general process. The primacy of the movement of the whole is what grounded Eisenstein’s organicism: the idea of a cinematic work as organic unity, which presupposes a belief that the whole of the work of art, mimicking the laws of nature, forms a qualitatively distinct dimension, irreducible to the sum of its parts—one of the key ideas that recurs throughout Eisenstein’s writings and is explicitly elaborated with a reference to Engels in *Nonindifferent Nature*.

According to Oksana Bulgakowa, Eisenstein first read *Dialectics of Nature* in 1926, soon after its initial publication in Russian in 1925, while at work on *The General Line*. This would suggest that the book began to exert its influence on Eisenstein much earlier than is often suggested. Its effects can already be felt in Eisenstein’s remarkable theoretical outburst of 1928 and 1929. As he stated in his lecture ‘Imitation as Mastery’ at La Sarraz in 1929: ‘We are penetrating matter. We are penetrating behind appearance into the principle of appearance’.

The advantage of the dialectical materialism proposed in Engels’ *Dialectics of Nature* over older forms of mechanical philosophies of matter lay in the fact that it did not presuppose matter (or nature) to be uniform in its movement. On the contrary, it sought to allow for a real multiplicity in the process of material transformation. Nevertheless, according to Engels, the movement of this open totality of matter could be expressed by three general dialectical laws, all of which Eisenstein appropriated in his own work. These were: 1. ‘The law of the interpenetration of opposites’, which helps explain the role played by conflict and counterpoint in Eisenstein’s conception of montage. Eisenstein’s definition in ‘Dramaturgy of Film Form’ of the cinematic shot as a ‘montage cell (a molecule)’—the notion that conflict is at work already inside the individual shot, which in this sense splits or explodes into a montage sequence—can, for instance, be related to the reception of the discoveries of cell biology in *Dialectics of Nature*, particularly to Engels’ stress on mitosis as the minimal dialectical operation functioning at the basis of the evolution of more complex natural forms; 2. ‘The law of the transformation of quantity into quality and *vice versa*’, which according to Engels was observable in all natural processes, was the support upon which the ‘later’
Eisenstein built his conception of *ek-stasis* as the form of experience—a qualitative leap outside of oneself—shared by the spectator and the film; and 3) ‘The law of the negation of the negation’, the third dialectical law, the developmental schema, according to which the accomplishment of a work of art passed through a progressively articulated spiral of qualitatively differentiated stages.

Finally, these dialectical determinations—unity of opposites, leaps between quantitative and qualitative change, difference grasped as negation—suggest a movement that is inherently split or bifurcated and that can therefore be simultaneously progressive and regressive. This specific dimension was reflected in Eisenstein’s understanding of the very status of art. In the text ‘Zametki k Grundproblem’ for example, he described a kind of dual unity (*dvoedinost*), extending at the same time towards the abstraction of conceptual thought (progress) and towards the unconscious, archaic forms of ‘sensuous thinking’ (regress).

With his marriage of materialism and Hegelian dialectics, Engels wanted to find a new relation between history and nature. His materialist dialectic of nature was to form a complex whole with Marx’s discovery of historical materialism (dialectics of history, materialism of *praxis*), thus extending the findings of Marx into the field of the natural sciences, a gesture which became increasingly important to him in the wake of Darwin’s *On the Origin of Species* (1859), which both Marx and Engels immediately grasped as revealing the existence of historicity of and in nature itself. *Dialectics of Nature*, however, remained inconclusive, essentially a polemical text in need of further revision. Its materialist dialectic carried a critical and revolutionary force, as the centrality of the concept of movement allowed it to break down any ideal or a priori conceptions of form and to point to the essential historicity, and thus instability, of natural phenomena. This, however, did not prevent *Dialectics of Nature* from becoming one of the central sources for the infamous Stalinist *dia-mat* or dialectical materialism, selectively received through the works of Plekhanov and Lenin and turned into the official doctrine of the Soviet party-state, which ‘read’ the dialectic as an a priori ontological view of the world, a universal method of explaining natural and historical
phenomena and the normative instance against which all science and intellectual activity were to be measured and policed. The Stalinist dialectic presented itself as a general theory of movement, setting forth laws and principles, which prescribed narrow limits to form and enclosed the behaviour of phenomena into a rigid vision of an ordered system. In his quest for a materialist and dialectical conception of form, negotiating between his status as an artist-experimenter and active participant in the project of the Soviet state, Eisenstein himself often reproduced this duality.

Sources


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