

Aud Sissel Hoel and Ingvild Folkvord, eds.

Ernst Cassirer on Form and Technology: Contemporary readings.

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This is in reality two different books. The first is a presentation, translation, and discussion of Ernst Cassirer's 1930 essay 'Form and Technology'; the second, an exploration of how some of the concepts developed in 'Form and Technology' and in the *Philosophy of Symbolic Forms* (*PhSF*) could be used to continue Cassirer's project in more contemporary ways.

In their Introduction, Aud Sissel Hoel and Ingvild Folkvord evoke the idea of a renaissance of Cassirer studies. Recent interest in the 'Continental Divide' and disillusionment with poststructuralism have led a number of contemporary thinkers to explore the *PhSF* for new approaches to the study of culture. Cassirer's philosophy of culture is based on the idea of the symbol as mediation, but only in 'Form and Technology' is this idea extended to technology. The editors also claim that, rather than constituting an afterthought, the essay 'Form and Technology' shows that Cassirer's intention was to integrate the problem of technology into his general philosophy (3).

Cassirer begins 'Form and Technology' by acknowledging the importance of technology in contemporary culture. Technology (*Technik*) is sometimes praised and sometimes deplored. The task of philosophy, however, is to understand the nature of technology and to see it 'for what it is' (15), to inquire into the "conditions of possibility" of technological efficacy and technological formation' (18). Rejecting the reduction of technology to utility, as well as the vitalist (*Lebensphilosophie*) criticism that opposes technology to life, Cassirer demands to revisit 'the very principle of becoming' of technology (18). Taking a cue from Max Eyth's approximation of poetry and technology, Cassirer sets up to explore the relationship between language and tool. Both are originally projections and extensions of the body, and through their activity man himself is transformed. To highlight this transformation is the main contribution of philosophy to an understanding of technology (25).

Cassirer rejects Frazier's characterization of magic as primitive technology. Magic and technology have in common the conscious representation of a goal we strive to achieve, but in magic there is no mediation and no mutual determination between the I and the world (29). This mediation is first achieved by the tool, which stands as something independent of the mythical worldview.

Sections III and IV of Cassirer's essay examine Klages's and Simmel's criticism of technology. Cassirer takes their criticism seriously, but points out that a pertinent answer to Klages would be to show that technology is a necessary path toward becoming human (36). Drawing on Kapp and also on Karl Marx, Cassirer describes three stages in the development of technology. In the first one, work is an activity that is expressive of the human body and of its rhythms. In the second, the tool is still continuous with the body but is already an objective

thing. In the third, the tool becomes the machine and the activity of work becomes totally separated from the worker. Cassirer concludes this section reaffirming his position: the problem of technology cannot be analyzed either by comparing contemporary technology to some hypothetical pre-technological state of nature or by referring solely to the utilitarian aspects of technology. On the contrary, the real question is one of bondage and freedom.

Section IV of Cassirer's essay deals with the objection that technology, rather than being an occasion for the spiritual development of mankind, is a corrosive force that destroys the unifying form of culture. Cassirer proposes to discuss successively the relationship between technology and natural sciences, arts, and ethics. Cassirer has no problem showing that while there are differences between these realms of culture, there is no fatal antagonism between them. Regarding the question of the relationship between ethics and technology, the problem is more complex. Drawing on Walther Rathenau's criticism of technology, Cassirer concludes that the conflict between technology and ethical values is not intrinsic to technology but the result of its subordination to a given social setting (the order of commerce). Technology has the potential not only to conquer the forces of nature, but also to become the vanquisher of the chaotic forces of the human being (49). These remarks, which resonate with socialist echoes, conclude Cassirer's essay.

The historic section of this book is made complete with three essays. John Michael Krois, who also translated Cassirer's essay, locates this work within the discussion of technology in the 1920s and 1930s. This was a period of rapid technological innovation. Transportation became mechanized, and electricity, the telephone, and the gramophone became widespread. But among these innovations, radio was probably the most influential. Cassirer's essay coincidentally appeared in a volume which was focused on the influence of technical innovations on the performing arts, music in particular. Krois provides useful information about the contents of this volume and about the history of radio broadcasting in Germany in the 1930s.

In 'Struggle of Titans', Frederik Stjernfelt finds a link between Cassirer's criticism of vitalism in the recently published fourth volume of the *PhSF* and his attempts in 'Form and Technology' to expand the notion of symbolic forms to the realm of technology. Stjernfelt claims that it was after the Davos confrontation with Heidegger that Cassirer made this attempt. (92–93). But, as Stjernfelt himself acknowledges, the evidence for such a link is merely circumstantial. Heidegger's writings on technology date from the period after WW II, though he was interested in the work of Jünger already in the 1930s.

Hans Ruin's contribution claims that between 1929 and Cassirer's emigration in 1933, Cassirer and Heidegger continued relating to each other in a sort of 'virtual continued dialogue' (114) and that Heidegger's thinking on technology can be read partly as a response to and elaboration of Cassirer's 'seminal work' (118).

The remaining seven essays compose the second part of the book. Aud Sissel Hoel's chapter argues that 'Form and Technology' has a major role in Cassirer's later thought. She proposes to read Cassirer's *PhSF* from the vantage point of the essay on technology. She characterizes the symbolic forms as the realization that the cognitive function requires a principle which does not belong either to the subject or to the object pole, a principle that is material,

historically constituted, and an original formative power. Cassirer presents in 'Form and Technology' and in *PhSF* v. 4 an instrumental view of technology which is rooted in making and doing. Aud Sissel Hoel posits that this program abandons the canonical distinction introduced by Aristotle between theoretical, practical, and productive modes of reasoning without, however, renouncing the ideas of necessity or truth. Finally, Aud Sissel points out to parallels between Cassirer's ideas in *Form and Technology* and the ideas of thinkers such as Bruno Latour and Don Ihde (82–83).

Jean Lassège's 'Technical Activity as a Symbolic Form' asks whether linguistic and technological forms are similar forms of mediation. In 'Form and Technology' Cassirer seems to answer affirmatively because of the mediating power of both and their potential to oppose the mythical world. Nevertheless, according to Lassège language has aspects which are lacking in technology, such as its expressive and semiotic dimensions (140–141). For the association to be established, the notion of symbolic form has to be expanded 'to any kind of shared activity' and language has to be understood as the symbolic form 'that keeps transforming itself through the interface it has with other activities, such as the technical one (143). Cassirer's treatment of technology has to be re-examined in view of our current understanding of the non-human use of tools, of the limitations of the notion of 'organ projection' and also in regards to a more culturalist view of the origin of the tool, which is nicely exemplified with the help of Clarisse Herrenschmidt's studies on the origin of writing and money in early Mesopotamia. Finally, Lassège develops an analogy of money conceived as a technique and a language, which allows him to claim that there is a deep interaction between the two (157).

In 'The Power of Voice', Ingvild Folkvord compares Cassirer's and Brecht's reflections on the – at that time relatively new – medium of broadcasting. In "Representation" and "Presence" Marion Lauschke discusses the challenge to Cassirer's theory of representation from the criticisms of Derrida, Foucault, and Gumbrecht. In 'Cultural Poetics and the Politics of Literature', Tygstrup and Winkel Holm explore the similarities between a 'cultural poetics' and Cassirer's symbolic forms. In 'Cave Art as a symbolic form' Mats Rosengren introduces the reader to the fascinating realm of prehistoric cave art. Rosengren surveys the problems with the standard interpretations of cave art, and explains why in his view cave art can be considered a tool in Cassirer's sense (219). Dennis M. Weis compares the sense and awareness of a societal crisis in the late work of Cassirer, starting with the essay 'Form and Technology', with the contemporary movement of 'converging technologies'. The latter proclaims that we are on the eve of an epochal era of human enhancement through the powers of nanotechnology, biotechnology, information technology, and the cognitive sciences (238). Weis finds several 'intriguing similarities' between the ideas of Cassirer and those of the thinkers identified with the 'convergence' movement.

This book provides the English reader with access to a hitherto unknown text, with studies that show the context in which Cassirer ideas on technology developed, and their potential when applied to fields as diverse as radio broadcasting, cave art, and transhumanism.

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