Pulse: a History, Sociology & Philosophy of Science Journal
Issue **5** (2017/18), pp. 89-92

Modernism, Science, and Technology

Mark S. Morrisson

London: Bloomsbury Academic, 2017.

Reviewed By

Rosie Emma Barron

Mark S. Morrisson takes on an impressive academic feat in this New Modernisms edition. Bringing attention to how new scientific approaches and technological advances reshaped popular thought and imagination, Morrisson highlights the "rampant boundary crossing" (44) between cultural, social and artistic spheres with the scientific. This crossing in many ways symbolised the twentieth century as a whole with its explosive tendency to create and destroy, impact and inhibit, transform and reform at a before unprecedented scale.

In the study of the twentieth century, technology and science have often been at the forefront of general and academic intrigue. Although at first it would appear that literature is largely distinct from the hard fact worlds of science and technology, in this new study Morrisson builds on more traditional approaches to modernism to stress its interconnectedness with the scientific developments in the later nineteenth and twentieth century. To do so, he brings seminal scientific approaches from the nineteenth century into a modernist context, an approach which holds unbound potential for future research.

This volume moves progressively from its introductory chapter, 'Modernist culture, modernist science' where it overviews the field and introduces key scientific and technological concerns in the period, to chapters two and three, 'The Physical Sciences and Mathematics' and 'The Life Sciences', which both draw on recent

scholarship and provide influential and critical debate on the three main themes of the volume. Chapter four and the Coda both engage with relatively new ground, particularly in regards to the human sciences (e.g. anthropology, sociology, and psychology) and the emerging field of disability studies.

The body has always been an intriguing, but nonetheless difficult point of study, both in science and literature. In the modernist period, technological and scientific advancements changed approaches to the body, redefining possibilities and potential, allowing for an extension of the senses – the ability to see more with the invention of the x-ray for example, and the ability to hear further with the increased technology of the telephone and film. The study of the disabled body in this period has the potential to redefine our approaches to the senses, through a study of their ability to adapt and improve other forms of perception and expression provided by new scientific advancements and discoveries.

Engaging with old debates within a relatively new critical cross-disciplinary framework, Morrisson provides a comprehensive survey of modernism in this fairly short volume. From the complexities of chemistry and hard sciences, to the conceptual difficulties that are inseparable from developments in subconscious thought theory and life sciences, Morrisson leads the student by the hand in this text, tying in key developments within the scientific and technological fields with notable literary trends and works from seminal modernist figures like James Joyce, Virginia Woolf, H. G. Wells, and Gertrude Stein. Modernism alone has elicited countless studies, ranging from grand scale, all-encompassing monographs, to more specific, narrow studies of specific authors, themes, and theories. What Morrisson embarks on here is something in-between.

Whether within the arts, or the scientific or technological fields, the twentieth century threw many things, once thought of as stable, known, and solid, up into the air, prompting, for example, the famous work from Marshall Berman, *All That Is Solid Melts into Air* (1982), which examines the conflicting relationship between the social and the economic during the modernist period, with modernist art and industrial capitalism often at odds. This ambiguity was felt throughout the twentieth century, provoking an intense feeling of anxiety and upheaval. Morrisson highlights that this turmoil was not just felt by the artists of the period, but scientists also, who found themselves adrift in the turbulence of modernism, torn between old and new science - for example with Einstein's epistemological crisis in 1905 as he

struggled to merge classical physics with evolving new sciences. Interestingly, however, scientists, like modernist artists, found a way to make themselves at home in the maelstrom of modernism, embracing its paradigm shifts with enthusiasm and resulting in many modern avenues, not just the arts, largely adhering to Ezra Pound's famous declaration: "Make it new".

Drawing attention to seminal works on modernism and technology, Morrisson stresses the fusion of the human with the machine, afforded by scientific and technological developments. In many ways a turn inwards towards the subconscious and the mind, and in others ways an outward focus on physical advancement, the modern body was repeatedly exposed to machine-culture, stretching to fit the new cultural demands that needed internal reflection and outer progression. As Morrisson himself notes early in his first chapter, "many of the developments that fuelled a growing modernist self-consciousness were precisely these rapidly paced technological and scientific changes" (2). He suggests that the similar adherence shared by artists and scientists to the remarkable effect of self-consciousness within the period creates an argument for the movement's description as not just modernism, but a "scientific and technological modernism" (7).

This was reflected in much of the literature of the time, including seminal writers like Woolf and Joyce, as Morrisson discusses with insightful reference to how both authors blended art and science to accommodate the new consciousness of the period (Woolf and thermodynamics, pp. 46-49; Joyce and new physics, pp. 73-76, 78-79). However, many modernist texts that incorporated scientific elements into their narrative techniques, plots, and styles, have been largely overlooked in this respect. Morrisson's work has the possibility to reimagine such works within the scope of science and technology through his detailed investigation into their parallel, and largely inseparable, developments. Although some work has already been embarked on (see Michael Davidson 2007; Yoshiki Tajiri 2007), there is room, if not a need, for a revision of several of Samuel Beckett's works within the scope of disability studies, particularly in the context of technological and scientific developments that Morrisson highlights. Through such revisions, many of his works would hold the potential for a more positive reading – one which views his attention to the embodied experience as an interest in new technologies, as opposed to the prevalent readings of negative body.

Despite this seemingly pleasant blend of discourse from different spheres, this is not an easy read. With terms like "non-Euclidean geometries" and "thermodynamics", this study may first appear intimidating to a student of modernist literature. Although dense in nature, the layout and progression of the book, with the glossary at the end, transform this text into an ideal companion for the study of the effect of science and technology on the modernist period. The Coda stands out as something that will be of great interest to a variety of readers. Merging old and new science, this final section impels further study, and in summary echoes the intention of the text as a whole. This intention was never to explain away all the complex revolutions that took place in science and technology in the twentieth century. Instead, what Morrisson does take on is a "will to cross disciplinary boundaries" (155). This will is emphasised in Morrisson's passion throughout this text, a passion that will no doubt prove invaluable to scholars in modernism, science and technology.