

## ***Book Reviews***

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**Allen, Glen Scott. *Master Mechanics & Wicked Wizards: Images of the American Scientist as Hero and Villain from Colonial Times to the Present*. Amherst: University of Massachusetts Press, 2009. 304 pages; index, footnotes.**

Americans loathe theoretical scientists, seeing them as aristocratic “wicked wizards” cut off from family and community and bent on world domination. Americans love engineers, seeing them as pragmatic “master mechanic” everymen producing useful inventions for their communities. As Glen Scott Allen reports in his provocative, wide-ranging and extremely bleak cultural history, these are the two kinds of scientists typically found in American popular culture: villainous intellectuals and heroic inventors. Allen argues that there is a prejudice against theoretical science in American culture that is rooted in 17<sup>th</sup>-century Puritan culture’s anti-intellectualism, and this prejudice has shaped not only how Americans represent scientists but also what kinds of science actually gets done in America. Allen stresses in his introduction that he is not writing about science but rather about images of scientists in popular culture, but despite his initial protestations to the contrary his true object really is the history of American science. The two archetypes he has identified have changed very little since their inception in colonial times, he holds, and since then they have wielded tremendous propagandistic power, shaping “the public conception and professional practice of American science over the next two hundred years” (235).

When it represents science, Allen argues that popular culture serves as a vehicle for America’s dominant anti-intellectual Puritanical ideology, an ideology that privileges the makers of things over the makers of theory. Rife with imagery of “wicked wizards” (aka mad scientists), Romantic fiction, pulp SF, sci-fi films, spy thrillers, and television shows about ghosts and vampires have all paved the way for such irrational follies as the manned space program and the nuclear arms race and sown the seeds of American culture’s current distrust of the theories of evolution and climate change. Allen begins his study by analyzing the split that arose between “applied” and “pure” science in the 19<sup>th</sup> century American academy. Certain Bostonian theorists walled themselves off from society in elitist clubs such as the

American Association for the Advancement of Science, earning the scorn of the nation as a result. Thus the American scientific community itself began to conform, at its inception, to the prejudices of American society, separating into warring camps of theoreticians vs. applied scientists. We don't find this kind of anti-intellectualism in aristocratic Europe, which has a long tradition of lofty scientific inquiry (as well as a history of distrust of technology); it is an American invention, Allen discusses in the following chapter, coming to full flower in figures such as Nathaniel Hawthorne's mad scientists, Aylmer and Rappaccini, men so distracted by their wicked intellects they are driven to murder. Victor Frankenstein is the character that most people think of when they think about mad scientists, and in an extended discourse on the staged and film versions of Shelley's story Allen shows how this paradigmatic narrative meant very different things for American and European audiences and was thus revised accordingly. The European romantic critique of the material and revolutionary forces threatening the continent's status quo becomes, for American audiences, a Puritanical story about an egomaniac intellectual who does nothing useful for society. (Here Allen makes the fine point that much of the iconography of Hollywood's Frankenstein, the emaciated outlaw researcher with a stooped assistant, derives more from Hawthorne and later stage adaptations of *Frankenstein* than from Shelley.)

The corollary to the Romantics' wicked wizards can be found in the archetype of the "master mechanic," the figure to whom Allen then turns in his analyses of the technological utopianism evident in the various World's Fairs and utopian literature of the 19<sup>th</sup> and early 20<sup>th</sup> century. Here science becomes a kind of technological spectacle devoid of theory and presided over by heroic engineers doling out gadgets. Allen finds a link between the development of philosophical pragmatism in Emerson and James and the rise of the industrial, goal-oriented master mechanic heroes in Bellamy's *Looking Backwards*, the film *Things to Come*, the social planning of the Technocrats, and the "World of Tomorrow" exhibit at the 1939 World's Fair. In this era, technology and a cult of efficiency seized the public's imagination while government funding for basic scientific research was non-existent. Across culture, master mechanic inventors and showmen were valorized while theoreticians were either ignored or cast as wicked wizards. Even the SF pulps at this time did little but reproduce American culture's of

anti-scientific biases, Allen asserts, their authors churning out poorly written and nearly identical tales about world-dominating “mad scientists” (64) and their “evil assistants” (65) held in check only by brawny adventurers.

Allen then turns to extended analyses of two technological systems whose development has been heavily shaped by the propagandistic power of American culture’s concept of the scientist as either master mechanic or wicked wizard: the nuclear weapons and space programs. For both, theoretical science was slaved and even sacrificed to the cause of technological spectacle. The atomic scientists and the Mercury astronauts were forced to conform to the conservative image of the master mechanic and serve the technological needs of the cold war weapons state. American culture turned the visionary atomic scientists who first built the bomb into scapegoats solely responsible for the nuclear age’s perils, dismissing the grand anti-nuclear “one world or none” theories of Robert Oppenheimer as the ravings of a mad scientist. After the launch of Sputnik, the nation turned its nuclear missiles into yet another technological spectacle with little scientific merit: manned space vehicles. In both the iconography and the actual planning of America’s space race, the early astronauts are not scientists or high-tech warriors but rather “Master Mechanics with a pilot’s license” (163). Theoretical science becomes something very scary for American audiences from this time onwards. All those sci-fi films from the 50s about invading monsters which we assumed were metaphors for communist infiltration are really anti-intellectual expressions of American culture’s fear of theoretical science, Allen argues, as are *Star Trek*, James Bond films, and films about artificial intelligence for that matter.

I certainly agree with Allen that there is a strong anti-intellectual streak in American culture. Allen shows how the stereotypical “wicked wizard” mad scientist has not only long been a central character in scientific popular culture, especially in visual media, but also how that character has been used to demonize certain kinds of science. He is to be credited for documenting how another less obvious character, the “master mechanic” heroic engineer, has remained just as potent a character through two centuries of popular culture as well, often serving as an ideological foil to those mad scientists. At the same time, I wish Allen had devoted at least a few pages to discussing popular images of scientists that don’t conform to his two archetypes and, better yet, to discussing texts that resist the ideological formation he describes (they’re out there). Allen finds little of intellectual

value in popular culture, especially as it pertains to science. He goes out of his way to disparage the quality of writing in pulp SF (64), calls the sci-fi films of the 50s “schlock” (92), judges all films and television shows about artificial intelligence to be “superficial” (196), and deems all television shows about the paranormal from *Buffy* to *The X-Files* to be “anti-rationalist” (248). Perhaps because he finds so little of value in popular culture, Allen treats many of his cultural texts broadly, finding whole subgenres to be devoid of scientific intellect. Sometimes this treatment feels overly broad. For example, in his discussion of the role of scientists in pulp SF Allen claims the pulps are full of little but stereotypical mad scientist “would-be world dominators” (65). However, he doesn’t discuss a single author or a single story from the pulps in this section (the only sources he cites here are two slight commercial booksellers’ websites, one of which is littered with dead links and is less than half complete). Instead, Allen relies on a few examples of pulp cover art and the *Flash Gordon* film serials to represent every story about scientists throughout pulp SF (a quick check of the entry on “scientists” in Nicholls’s and Clute’s *Encyclopedia of Science Fiction* reveals that there are several kinds of scientists in pulp SF—heroic, eccentric, absentminded, and villainous alike—and that there are sane, socially conscious scientist heroes in later print SF as well). While full of technological marvels, Allen finds that popular culture is a scientific wasteland. Scientists are partly culpable for this state of affairs, he concludes. They let tinkerers like Ben Franklin become the model for American science instead of theoretical visionaries like Robert Oppenheimer. Scientists need to do a better job explaining what scientific theory is and they have to take more personal responsibility when their abstract ideas are put to dangerous use. But they will get no help doing so, it seems, from the makers of popular culture.

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