Call it Science: Biblical Studies, Science Fiction, and the Marvel Cinematic Universe

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ABSTRACT
In the virtual world elaborated in Marvel’s movies (the “Marvel Cinematic Universe” or MCU), “science” is creatively, strategically confused with “magic” and/or “religion.” Key supernatural/magical elements of the franchise’s comic-book source material are “retconned” (retroactively granted new narrative coherence and continuity) as advanced scientific marvels. I argue in the first section that a biblical studies perspective can shed valuable light on this contemporary sci-fi phenomenon, by highlighting the ideologically interested and culturally contingent character of “religious” phenomena like canons and marvels. The perspective thus provided can help elucidate the contexts and consequences of the MCU decision to retcon magical and religious cultural materials as scientific wonders. In the second section, I argue further that such reflection on science fiction and the MCU offers valuable perspective to biblical studies in return by opening new research avenues into the human and historical meaning of certain biblical traditions, in this case by recalling the sense of technology shock that must have sometimes accompanied ancient developments like the widespread use of war horses or the mass production of books—world-changing developments that modern biblical critics are not culturally primed to perceive and investigate as technological marvels.

KEYWORDS
Science; Science Fiction; Apocalyptic; Popular Culture; Miracles; Wonder; Marvel Cinematic Universe

Introduction: Science Fiction, Biblical Studies, and the Marvel Cinematic Universe
Marvel Studios is a popular-culture superpower. As of this writing, their superhero movie series is the highest-grossing movie franchise of all time,¹ raking in billions in box-office revenues, entertainment spinoffs, and merchandise.² The studio’s latest mega-instalment,

² Matthew Ingram, “Six Years Later, Disney’s Acquisition of Marvel Looks Smarter Than Ever,” Fortune, 8 October 2015, tinyurl.com/zhxnvhz4.
Avengers: Endgame, is the highest-grossing movie of all time. The pop-culture conquest of Marvel movies is of interest to interdisciplinary researchers concerned with intersections of biblical studies and science fiction studies for three reasons: 1) Marvel’s movies are well-known and well-loved. Mass-entertainment culture has a recognised power to promote particular ideologies, and superhero comics culture (including its profitable derivative superhero movie culture) is so clearly well-suited to this social function it has often been called a “modern mythology” or a “modern religion” in its own right. 2) Marvel’s superhero movies have a noticeable tendency to be bought and sold as “science fiction” movies. Their artistic forms and functions (including their potential “mythological” and “religious” characteristics) are therefore relevant to understanding the contemporary popular form and function of science fiction itself. 3) In the virtual world elaborated in Marvel’s movies—the “Marvel Cinematic Universe” or MCU—“science” is creatively, strategically confused with “magic” and/or “religion.” Marvel’s film blockbusters are therefore relevant to scholars interested in understanding popular attempts to articulate what science, science fiction, magic, and religion really are or ought to be.

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3 Avengers: Endgame, directed by Anthony Russo and Joe Russo, written by Christopher Markus and Stephen McFeely, 2019, Walt Disney.

4 Brad Brevet, “'The Lion King' Debuts with Record $185M & 'Endgame' Becomes Global #1,” Box Office Mojo, 21 July 2019, tinyurl.com/pymr6j55.


7 Streaming giant Netflix and shopping giant Amazon.com both list the MCU movies under the category of “Science Fiction,” for example. On 18 June 2019, a full third of the titles featured on the scrolling top result of a Google search for “Best Science Fiction Movies of 2019” were superhero movies (ten out of thirty). Four of these were MCU movies, including the first two listed (Avengers: Endgame and Captain Marvel).

8 See the first section below.
The disputed borders just described between the cultural categories and artistic genres involved in the MCU raise all kinds of questions for researchers interested in science fiction and religious/biblical studies. For the purposes of time and focus, my study is limited to discussing the way the Marvel Cinematic Universe defines the nature and meaning of marvels by deploying the sci-fi storytelling principle known as Arthur C. Clarke’s Third Law (“any sufficiently advanced technology is indistinguishable from magic”) in a very particular way: Key supernatural/magical elements of the franchise’s comic-book source material are “retconned” (retroactively granted new narrative coherence and continuity) in the MCU as advanced scientific marvels. I argue in my first section that a biblical studies perspective can shed valuable light on this contemporary sci-fi phenomenon, by highlighting the ideologically interested and culturally contingent character of religion(s), canons, and marvels. The perspective thus provided can help elucidate the contexts and consequences of the MCU decision to retcon magical and religious cultural materials as scientific wonders. In my second section, I argue further that such reflection on the MCU offers valuable perspective to biblical studies in return by pointing to new research avenues: understanding the sci-fi function of marvels in expressing wonder and worry about technological change raises questions about the kind of cultural “technology shock” that must have sometimes accompanied ancient world-changing developments, registered in the kinds of accounts of marvels preserved in biblical tradition—stories of marvels that modern critics are not primed to perceive and investigate as technological marvels.

What Can Biblical Studies Contribute to Critical Reflection on the MCU’s Sci-Fi Marvels?

Critics often claim that science fiction is an important “religious” or “mythological”

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11 James F. McGrath, “Religion, But Not as We Know It,” 153–154; Kreuziger, The Religion of Science Fiction, 2.
modern phenomenon. Similar claims are often made about superhero comics culture. Some critics have made the claim more specific by asserting that science fiction is the apocalyptic literature of the modern world. This status has also been claimed for superhero comics culture. Scholars have explored the creative debts sci-fi culture and superhero culture owe to religious and scriptural traditions, and some have even pronounced such stories the “scriptures” of today’s world. If this chorus of interrelated claims is deemed at all worthy of further investigation—in this case with reference to the question of science, magic, and religion in the MCU—the academic disciplines of religious studies in general and biblical studies in particular will presumably be of use.

A cautious reader may object here very reasonably that the key terms involved in the thicket of alleged connections just described often look imprecise and tendentious.

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16 See, for example, Kreuziger, The Religion of Science Fiction, 2–3.
Their users rarely define them, and when they do they rarely agree. Superhero culture may be “religious” because of the “zeal” it can create in fanatics or “fans,”17 because it can communicate sublime truths,18 or because it can inspire audiences to wonder and self-actualisation.19 Sci-fi may be “apocalyptic” due to its many visions of “Armageddon,”20 its many revelations associated with heavenly journeys,21 or its abiding interest in the kind of “crisis that threatens a people’s identity.”22 For my money, though, this is precisely why biblical studies can in fact be useful here. The investigative categories of the religious and the biblical are evolving, contested, culturally contingent, and ideologically interested.23

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20 Disch, The Dreams Our Stuff is Made Of, 143–144.
21 McGrath, Religion and Science Fiction, 2.
22 Kreuziger, The Religion of Science Fiction, 12.
So are the categories of marvels, magic, myth, science, and science fiction. Insights gained in studying the former topics therefore have the potential to shed light on the latter.

Before moving into such analysis, though, I should address a second very reasonable potential objection: the danger of indulging in crypto-theology. Sympathetic biblical scholars—especially enthusiastic “scholar-fans” may be tempted to approach “religion and sci-fi” or “religion and superheroes” by reading the pop culture products involved as modern vehicles of the kinds of timeless theological truths they perceive and value in the Bible. Such an approach will naturally tell us more, of course, about the theological ideals and commitments of these scholars than about sci-fi or superheroes. The temptation to indulge in crypto-theological advocacy is indeed a real and present danger in discussions like this, as it is in religious studies and biblical studies in general. When F. A. Kreuziger and B. J. Oropeza look deeply into sci-fi and superheroes, for example, and find that they subtly promote certain sublime theological ideals, their “findings” are practically indistinguishable from promoting theological ideals they happen


29 On this academic species of pop culture fan, see Matt Hills, Fan Cultures (London: Routledge, 2002), 11–12.

to like, i.e. by seeing and stressing such ideals in pop culture products represented for the purposes of the exercise as subtly profound artistic achievements. On the other hand, the mere existence of this crypto-theologising danger demonstrates the sense in which sci-fi and superheroes undeniably represent modern religious and mythological cultural expressions: they and their study are intimately involved, like everything else called “myth” and “religion,” with ideological projects of representation and persuasion. For this reason, investigating phenomena like the MCU’s magical-scientific marvels from the perspectives of religious studies and biblical studies is worthwhile—not to reveal their putative salvific meaning, but rather to build up academic understanding of their cultural contexts and functions.

With the methodological warnings and resolutions just mentioned in mind, I turn now to the work at hand: examining MCU’s magical-scientific marvels. As indicated already, the MCU “retcons” the magical, mythological and religious source materials of its stories as marvels of exotic science.\(^{31}\) The MCU version of the Norse thunder god Thor makes this equation explicit at one point in talking about his heavenly home Asgard and his magic hammer Mjölnir: “Your ancestors called it magic, but you call it science,” he tells his earthling love interest. “Well, I come from a place where they’re one and the same thing.”\(^{32}\) The mythological “Bifrost” rainbow bridge between Asgard and Earth is accordingly explained as the “Einstein-Rosen bridge” of theoretical astrophysics. By similar means, the Scarlet Witch—an unabashedly magical figure in the comics—becomes instead in the MCU the human guinea pig of mad scientists, and the magic of Marvel comics’ “Mind Stone” is powered in the MCU by alien computer code\(^ {33}\) that Tony Stark can harness by making hi-tech adaptations to his suit.\(^ {34}\) Even the “occult” and “mystic arts” of Doctor Strange get a scientific fig leaf (with the help of MCU science advisor Adam Frank)\(^ {35}\) in the form of throwaway references to multiverse theory and the

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\(^ {34}\) *Avengers: Endgame*.

\(^ {35}\) See Peter Iglinski, “Astrophysicist Meets Marvel Movie as Doctor Strange Science Consultant,” University of Rochester Newscenter, 2 November 2016. tinyurl.com/42nn8b2e.
manipulation of “energy” and “perception.” In a similar vein, then, the MCU companion book *The Wakanda Files* recaps the movie world’s bleeding edge of “technology and innovation,” the first item presented is a magic herb that allows the Black Panther to “access the ancestral plane.” The MCU’s commercial pattern of retconning Marvel magic as Hollywood science is clear and consistent.

In discussing the meaning of this creative decision on the part of Marvel Studios, one relatively obvious point of entry for biblical scholars is its relationship to canonicity. Biblical scholars are traditionally highly invested in questions of canonicity, and the social processes and social stakes involved in the formation and evolution of biblical canons are remarkably comparable to those accompanying the formation and evolution of entertainment culture canons, in terms of the complex and often competing systems of community, authority, and textual traditions involved. It is neither surprising nor trivial, then, to note in this context that Marvel staff and Marvel fan communities use the words “canon” and “canonical” explicitly when discussing the relative narrative authority of various movies and comics. In investigating the present case of the MCU’s retconned magical-scientific marvels, considering “canonicity” in a way informed by biblical studies is revealing.

The history of the world’s biblical canons is a never-ending story of retconning and rewriting. The Bible most people know opens with the book of Genesis, which offers a remarkable variety of traditions, texts, and very possibly different gods, edited and retconned over time by anonymous authorities into a single story about a single god and his people, written (as decided still later) by the single author Moses. The Bible as most

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36 *Doctor Strange*, directed by Scott Derrickson, written by John Spaihts, Scott Derrickson, and C. Robert Cargill, 2016, Disney.
39 See, for example, *The Canon Debate*, ed. Lee Martin McDonald and James A. Sanders (Grand Rapids: Baker Academic, 2002).
41 See, for example, Dave Richards, “Exploring Untold Tales of the Marvel Cinematic Universe in Comics Form,” *Comic Book Resources*, 25 February 2015, tinyurl.com/3bjyj87a.
people know it today ends with the book of Revelation, whose 404 verses contain something like 500 textual allusions to older Jewish scriptures (including Genesis), all retconned editorially to tell a single Christian story about the perceived election, martyrdom, and vindication of Jesus and his followers. Everything else found in between Genesis and Revelation is similarly shaped by processes of rewriting and retconning tradition, as is the intimately related world of textual tradition found “outside” the Bibles most people know—the deuterocanonical, apocryphal, and pseudepigraphical books, the “rewritten Bibles” and alternative canons, and the new scriptures and canons that continue to emerge.

The crucial point to note for our purposes here is that these canonical processes of rewriting, re-editing, and strategic retconning always involve the social needs of particular people in a particular time and place, including the local power struggles and cultural emergencies of the moment. Revelation, for example, did not revisit older Jewish scriptures out of leisurely antiquarian curiosity—it reframed traditions already deemed authoritative to help Christians define what the “witness” of “martyrdom” really meant in Asia Minor under the early Roman empire. The single-volume Bible most people know is itself a good illustration of the principles and processes involved here, by virtue of its historical debt to the emperor Constantine’s canon-building initiative. At the level of church and state politics, selected Christian authorities stood to benefit from the imperial blessing and funding associated with promoting what has been called “Constantine’s Bible,” and Constantine stood to benefit in return from the consolidated authority of the bishops involved (among whom he now insisted upon counting himself). At the level of culture authoritative textual canons had become prestigious, and at the level of technology single-volume collections had become feasible (i.e., affordable for communities with rich patrons). Constantine was not only willing to fund the retconned global Christian unity asserted by a single common book, though. He was also willing and able to back its implementation up with the force of law. Such precedents found in the

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45 The Greek word *(martus)* carries both meanings.
47 Dungan, *Constantine’s Bible*, 20–53.
history of biblical literature suggest that the MCU’s magic-as-scientific-marvel canon retcon should be approached with due attention paid to its culturally situated character, and to the social and ideological stakes such historical embeddedness entails.

The superhero culture brokers at Marvel Studios face great opportunities and constraints when it comes to working with the established marvels of their comics culture source material (such as Thor’s well-known magic hammer) in mass-market movies. They cultural properties their studios have inherited are licensed by huge corporations and loved by huge fan communities. They need to respect and protect their brand’s artistic inheritances, if only to make sure they remain marketable. The first market they need to secure is the North American consumer majority, an audience commonly expected to recognise science as very powerful and important, but also seen as struggling to keep up with the most recent and exotic advances of science and attracted to a sense of wonder in pop culture representations of such developments. Marvel Studios stands to benefit from preserving a feeling of magic and wonder in its representation of scientific marvels not only because wonder is a traditional ingredient in sci-fi as entertainment—but also because for many North Americans the perceived threat of a creeping societal descent into soulless, godless “scientism” looms large, precisely because science is so widely acknowledged as powerful and important.

The MCU’s retcon of its magical and religious source material as exotic science is as situated, strategic, and ideological as the biblical retcons discussed above. It negotiates the cultural and commercial situation just described by accommodating dominant North American worldviews, smoothing over the potential tension between the perceived benefits of scientific advancement and the perceived benefits of a healthy sense of magic and wonder. It protects the popular appeal and thereby the profitability of Marvel’s artistic properties, by preserving inherited canonical materials in strategically updated forms. The process is eased by the fact that registering wonder and worry in the face of

new technology is a superhero culture tradition. The comic book stories about Spiderman and the Incredible Hulk published in the 1960s explained their uncanny origins with reference to the mysterious influence of radioactivity, for example, whereas the more recent MCU movies Spiderman and The Incredible Hulkexplained the heroes' wondrous origins with reference to super-advanced genetic engineering. This allows the old marvels of the comics to exploit the science-related wonder of a new generation and address its new science-related worries. Although the process is in this sense comparable to the retconning of magic as science, the MCU habit of strategically updating ostensibly scientific marvels is not my focus here. I am concerned here with the MCU habit of rebranding the blatantly magical marvels of the old comics as exotic science.

It should be noted that due to the negotiated character of the MCU's magic/science retcon, the result is not simply a case of Marvel choosing and cheerleading for science. "In the Marvel Universe," writes pop culture critic Jason Bainbridge, "the premodern, the sacred, the mythological are replaced with science and technology, an idea that has been there from the beginning in Jack Kirby's mesmerising artwork that blurred science and magic." Bainbridge is partly right: canonical Marvel culture does often capitalise upon a Kirby-inspired artistic blurring of magic, religion, myth, and science. As a venerated founding figure at both Marvel Comics and DC Comics, Jack Kirby established science fiction sensibilities and the inspiration of religious mythologies at the heart of superhero culture, and the MCU's grateful creative debt to Kirby can often be seen on-screen, as for example in the ostentatious visual homage paid to his signature drawing style in Thor: Ragnarok. Bainbridge's picture of magic and religion being "replaced" by science and

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54 See, for example, the link between superheroes and popular anxiety about nuclear power traced by Robert G. Weiner, "Okay, Axis, Here We Come!: Captain America and the Superhero Teams from World War II and the Cold War," in Oropeza, The Gospel According to Superheroes, 90.
55 Spiderman, directed by Sam Raimi, written by David Koepp, 2002, Sony Pictures.
56 The Incredible Hulk, directed by Louis Leterrier, written by Zak Penn, 2008, Universal Pictures.
59 Thor: Ragnarok, directed by Taika Waititi, written by Eric Pearson, Craig Kyle, and Christopher L. Yost, 2017, Walt Disney Studios. See Monique Jones, “How Thor: Ragnarok’s Planet Sakaar is an Ode to
technology, however, is incomplete. The entanglement created between magic and science in the MCU pulls both ways.

When Tony Stark builds a new “arc reactor” to power his armour or synthesises a new element to power it, his high-tech achievements show their uncanny power by emitting the same kind of blue-white captured lightning glow emitted by more explicitly magical MCU objects like Thor’s magic hammer or the Tesseract brought to earth by Odin. The visual language of the MCU movies further recalls here the blue-white glow associated with the powerful magic of Patronus spells in *Harry Potter* movies or magical swords in *The Lord of the Rings* trilogy. Exotic science can, of course, involve lightshows and even blue-white glows like the “Cherenkov effect” produced by radioactive materials submerged in water. These effects are rare, though, and most people never witness them. Most movie-goers will, on the other hand, have seen something like a Lord of the Rings movie or a *Harry Potter* poster. The blockbuster movie cliché of using blue-white light to mark an object as impressively “magical” is therefore the most immediate visual association exploited by MCU’s glowing marvels. In short, when the MCU movies retcon magic as science, they retcon science as magic too. In this sense, the categorisation of the Marvel movies as “science fiction” is accurate: the marvels they offer are an example of “science fiction” as defined by sci-fi patriarch Isaac Asimov, i.e., an artistic way of grappling with the meaning of scientific and technological development.

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60 *Iron Man*, directed by Jon Favreau, written by Mark Fergus, Hawk Ostby, Art Marcum, and Matt Holloway, 2008, Paramount.


64 *The Lord of the Rings: The Fellowship of the Ring*, directed by Peter Jackson, written by Fran Walsh, Philippa Boyens, and Peter Jackson, 2001, New Line.

In North America, science educators are struggling to raise a public scientific literacy rate seen as dangerously low, even as the cutting edge of science recedes ever further into realms popularly perceived as hopelessly esoteric. Most consumers understand very little about the latest achievements of the particle physicists at CERN, or even about how the marvellous gadgets we all use in our own daily lives actually work. Our capitalist market ideology further reinforces this tendency toward scientific inscrutability by encouraging the kind of “black box” technology that guarantees gadget marketers greater proprietary security and greater control over things like use, repair, planned obsolescence, etc. The marvels of the MCU retcon the pop culture results—the impressively and often inscrutably wondrous public face of 21st-century science and technology—as good old-fashioned magic. As Thor himself puts it in *Avengers: Endgame*, the fate of the entire world depends upon the ability to deal with super-hi-tech “space magic.”

The culturally situated and negotiated significance of the MCU’s marvels is not a new or unique phenomenon. The representations of marvels studied by biblical studies scholars are just as historically contingent and ideologically interested. They may talk of “signs” or “wonders” or “works of power,” with little to indicate the difference (if any) and little to indicate whether such marvels represent suspensions of a natural order or revelations of a deeper natural order. They may be seen as rewarding the kind of belief necessary to their manifestation. When Mark 6:4–6 discusses the lack of enthusiasm Jesus encountered as a prophet in his own hometown, for example, it says he “was not able to perform any work of power there.” The only person marveling was Jesus himself, who “wondered in amazement at their unbelief.” Miracles may also be seen in the practically opposite way, though, as a means to create belief where it is lacking. The Gospel of John says that “many believed” in Jesus because “they saw the signs he was performing” (John 2:23).

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66 See, for example, Jon D. Miller, “Civic Scientific Literacy in the United States in 2016. A Report Prepared for the National Aeronautics and Space Administration by the University of Michigan,” International Center for the Advancement of Scientific Literacy, 15 June 2016, tinyurl.com/y4n7x386.


As such examples from the world of biblical studies show, the definitions and meanings of marvels are malleable. They therefore can and should be investigated with attention to who is defining them how and why. Stories of marvels are situated social tools of representation and persuasion, designed to impress particular audiences and prompt particular responses in particular contexts.\(^70\) I have stressed here that the MCU’s marvels are culturally contingent and ideological too. On the one hand, they retcon Marvel’s licensed cultural properties and their religious/magical source materials as relevant to a culture driven by science and technology. On the other, they retcon the creeping inscrutability of science as magical. The artistic success and the social value of such representations are, of course, perspectival matters of debate. Consider the case of the Phantom and Mandrake the Magician (both contenders for the title of “the first superhero”\(^71\)). Their creator Lee Falk saw the marvels depicted in his comic strips as valuable applications of respectable ancient religious “mythology”\(^72\) on the one hand, and “serious” modern science fiction\(^73\) on the other, but not everyone agreed. The Cultural Defence Committee of Australia condemned Falk’s work as “mental rubbish from overseas” that threatened “common sense and science.”\(^74\) The committee was founded and funded, as it turns out, by the Fellowship of Australian Writers—Falk’s direct competitors in the comic strip syndication business.\(^75\) A story like this that goes back all the way to the roots of superhero comics culture illustrates the importance and longevity of the principle outlined above: the proper prescription for the pop culture admixture

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\(^74\) Cultural Defence Committee, *Mental Rubbish from Overseas: A Public Protest* (Sydney, Australia: Fellowship of Australian Writers, 1935).

\(^75\) Patrick, *The Phantom Unmasked*, 70.
and administering of science, fiction, religion, myth, magic, and wonder is always found in the eye of a situated beholder with something at stake.

**What Can Critical Reflection on the MCU’s Sci-Fi Marvels Contribute to Biblical Studies?**

I have argued here that science fiction culture can sometimes be usefully read as a modern expression of “religious” myth-making and canon-making (as defined above). For the purposes of interdisciplinary biblical studies, it also important to note that biblical literature can sometimes be usefully read as ancient science fiction (as defined above). The points discussed below show that the Apocalypse of John or “book of Revelation” provides a suggestive example. To be clear, I am not arguing that any specific creative content found in the MCU is directly relevant to the study of Revelation or any other biblical tradition. I am saying that noticing and understanding the ways in which marvels are retconned in the MCU suggests new directions in investigating the evolving shapes and meanings of marvels as they appear in biblical traditions.

Like the MCU’s marvels, the “supernatural” marvels preserved and reworked in biblical traditions are meaningfully situated evolving social phenomena. Their situated and interested forms and retcons call for critical attention too, and their socio-historical context may also include the social phenomenon of wonder and worry sparked by technological change and expressed in imaginative “mythological” terms. Do biblical representations of marvels at times preserve coded reflection on technological change? Do they involve ideologically significant retcons? Scholars will never know the answers to such questions if it never occurs to them to ask. This section uses the consideration of such questions regarding the MCU as a springboard to offer “think-piece” examples of where such an approach might start, and where it might go.

The book of Revelation looks like a good place to start in approaching biblical traditions as science fiction. As apocalypticism scholar Lorenzo DiTomasso has noted, Revelation lends itself readily to creative elaborations that look and work like sci-fi, such as the various *Left Behind* books and films.76 As James McGrath further notes, the *Left Behind* series is in fact listed under “science fiction” by Amazon.com.77 Some biblical scholars have pushed the connection further by referring to Revelation itself half-jokingly

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77 James F. McGrath, “Religion, But Not as We Know It,” 170.
as first-century science fiction, due to its strange and sensational content.\textsuperscript{78} Frederick Kreuziger is still more ambitious in drawing such links. Apocalyptic speculation in writing is, he argues, like science fiction a literature of the marginalised few:\textsuperscript{79} “For this reason we can, without exaggeration, refer to the Apocalypse of John as the science fiction of the Bible.”\textsuperscript{80} From the point of view sketched in the first section above, though, Revelation is not science fiction merely because it contains strange and spectacular conceits (as a great many ancient and modern books do), or because it accurately documents the oppression of a struggling little minority (works of science fiction and apocalyptic are, as Kreuziger himself notes, relatively successful and popular—at least today).\textsuperscript{81} From the point of view described above, Revelation is science fiction in Asimov’s sense of artistic grappling with the wonder and worry of impressive technological developments.

Reading Revelation as science fiction (i.e., as a human record of wonder and worry about technological development) can, for example, shed valuable light on the meaning of the book’s use of the image of the horse. In the first century, horses were state-of-the-art tools of human power and domination, as digital artist Michael Takeo Magruder has stressed in his visual exploration of “the horse as technology” in John’s Apocalypse.\textsuperscript{82} For our purposes here, it is therefore worth noticing further that Roman imperial forces had in the first century just begun to invest in cavalry units on a scale the world had never seen before.\textsuperscript{83} This is the world-shaping technological and colonial situation addressed by Revelation when it depicts the earth as tormented by the famous Four Horsemen (Rev 6:1–8), or when its terrible Christ figure of “the Word of God” arrives on a great white horse to save the day (Rev 19:11–21).

Like the pop culture marvels discussed in the first section, the image of the war horse in Revelation recons canonical traditions. Wonder and worry concerning the horse as military technology can be found in the Jewish scriptures upon which Revelation


\textsuperscript{79} Kreuziger, \textit{The Religion of Science Fiction}, 3, 14

\textsuperscript{80} Kreuziger, \textit{The Religion of Science Fiction}, 15.

\textsuperscript{81} Kreuziger, \textit{The Religion of Science Fiction}, 15–16

\textsuperscript{82} See Ben Quash, “The Horse as Technology,” in “De / Coding the Apocalypse” (Booklet for artistic exhibition by visual artist Michael Takeo Magruder, King’s College London, 7 November – 19 December, 2014), unpaginated.

depends (as noted already above) so heavily. In the story of the conquest of Canaan, for example, Judges 1:19 says that Yahweh was with the men of Judah, and he/they took possession of the hill country. It was not possible to drive out the inhabitants of the plain, though, the verse adds, “because they had chariots of iron.” Readers acquainted with later biblical tradition might have expected to be told here that the men of Judah won because they trusted/obeyed, but then lost because they somehow failed in trusting/obeying. Instead, we are told that they won because Yahweh supported them, and then lost because the enemy had iron chariots: apparently, the supernatural victories of Yahweh and his chosen people might at times be stopped in their tracks by unusually sturdy carts. This account of the situation in Canaan provides striking evidence that military applications of horses could at times be seen as great and terrible technological marvels, defying the divine will and terrorising the elect.

The war horse marvels of Revelation are also, like the MCU’s marvels, ideological retcons of inherited traditions, not simply echoes or elaborations of such traditions. The Four Horsemen sent out from heaven with their mounts of strange and significant colours, for example, recall the four chariots of power with strangely-coloured horses sent out from heaven in Zechariah 6:1–8, and the image of a mounted messiah who comes to “cut off the horse… and the chariot” of human military strength can be also found in Zechariah 9:9–10. Instead of Zechariah’s messiah who comes “riding lowly on a donkey,” though, Revelation’s messiah arrives on a great and terrible war horse (Rev 19:11). Instead of opening his mouth to “speak peace to the nations” (Zech 9:10), his mouth reveals a “sharp sword with which to strike down the nations,” so that carrion birds can “gorge themselves on their flesh” (Rev 19:15, 21). Revelation’s canonical retcon of the Messiah and the horse is something students of superhero comics culture know all too well: a revenge fantasy. For ancient Christian audiences brooding about the violence and injustice of “the nations” with Rome and her state-of-the-art armies in mind, the message would have been quite clear. The forces of death may have the power to oppress the elect for now with their superior technology, but soon a vindicating hero will come riding in on a literal doomsday version of their weaponry, to give them all a final, fatal taste of their own medicine.

Revelation’s use of the image of the horse points to the possibility of new directions in biblical studies inspired by science fiction studies like my analysis of the MCU, focused on the social situation and social meaning of retconned marvels. In Revelation, the marvel of the humility of Zechariah’s messiah is transmuted into the marvel of the messiah’s terrifying power, and the difference between the two books’ images of a mounted hero plays a part. Given the fact that horses represented the pinnacle of military technology in the first century, and the fact that they were being used by Roman armies on a scale the
world had never seen before, the armed and mounted character of Revelation’s messiah figure takes on a technological and “counter-imperial” significance so far unexplored in the relevant literature. While commentators have noted that white horses were associated in the ancient world with military conquerors and particularly with Roman triumphs, the fact that war horses of any colour were wondrously expensive and impressive military equipment is simply ignored. They approach fails to notice and address one of the image’s more likely and important first-century associations.

The Word of Revelation 19 arrives to ride a white horse into battle, not to be pulled in triumph by white horses after the battle, and “the armies of heaven” are furthermore all mounted on white horses like him (Rev 19:14). The image presented is therefore not that of a single triumphator in a chariot trailed by soldiers and prisoners. It is instead an image of unbelievably overwhelming force. Rome’s increasingly cavalry-enhanced armies are, to borrow a phrase from the original Avengers movie “hopelessly, hilariously outgunned.” Recognising that the evolution of biblical ideals of messiahship involves creative retconning and that horses constitute technology has an interpretive payoff here: this investigative approach illuminates the image of the war horse in Revelation as part of the book’s soteriological tendency toward violent spectacle that numerous scholars have flagged as troubling. This resentful, sadistic picture of messiahship is especially noteworthy and troubling because it dominates pop apocalyptic culture even today.


85 The Avengers, directed by Joss Whedon, written by Zak Penn and Joss Whedon, 2012, Disney.

including the triumphalist American pop apocalyptic of superhero comics culture inspired by Revelation that equates messiahs with avengers.

Apocalyptic art has a long legacy of lionising violent saviour figures, and this troubling legacy is alive and well in pop apocalyptic today (including superhero comics culture that draws explicitly from the book of Revelation). The ideological roots and fruits of the book’s interest in the technology of the war horse therefore call for careful investigation. Such investigation is unlikely to happen, though, if Revelation scholars are unaware that developments in war horse technology were changing the face of the known world in the first century, or if anachronistic impressions of what constitutes impressive technology prevent scholars from perceiving war horses in first-century terms as high-tech marvels. Of course, the potential payoff of the approach proposed in this study is not limited to the image of the horse, or to the book of Revelation. There are presumably other biblical traditions that can similarly be better understood using approaches more sensitive to the presence of ideological, imaginative forms of reflection on technological development. We may never know unless we are inspired by science fiction studies to ask.

Conclusion

In his essay on “spirituality” in and science fiction, James McGrath suggested that sci-fi might be a helpful companion to religious tradition in thinking through the ethics of technological development. In a less theological vein, I have suggested here that biblical studies can enrich science fiction studies in its investigations of cultural representations of technological change—and vice versa—in this case by highlighting the ideological character of the representation of technological marvels. The value of miracle stories is

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90 McGrath, “Religion. But Not as We Know It.” 168–170.
often explained in psychological terms: they are said to offer individuals a super-rational kind of freedom from the crushing limits and necessities of life as they know it. This account of marvels as free and freeing solo flights of imagination is incomplete in that it ignores the social function of marvels as ideological tools of representation and persuasion. Biblical studies can provide in this context a useful reminder of the situated, contingent and ideologically interested character of the depiction of marvels and offer insights into the contexts and processes of retconned canonicity that may be involved—as they happen to be in the case of the marvels of the MCU. In return, reflection on such phenomena in the science fiction of pop culture can provide a useful reminder to biblical studies scholars of the hermeneutical importance of attending to the urgent sense of wonder and worry that often accompanies social shifts—including scientific and technological shifts, and including phenomena not necessarily seen as impressive science or technology by modern eyes. I have argued here that this reminder looks very useful in understanding the situated, ideological representations of war horse technology found in the book of Revelation.

The project of approaching sci-fi and biblical literature as comparable in some such designated way should not be left to casual scholar-fans who just happen to already know and like them both, or to crypto-theologians desperate to find messages they like in books and movies that large audiences already know and like. As noted already above, “religious” and “mythological” cultural expressions assert particular worldviews, and justify real and ideal status quo systems. As religious and mythological phenomena in this very practical, this-worldly sense, biblical literature and science fiction both demand serious critical investigation, and in their comparative study each can at times enlighten the other.


Investigating the situated, ideological and retconned nature of the marvels they market offers one way forward in this interdisciplinary project.

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