

Science and Fiction

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Kevin R. Grazier Stephen Cass

Hollyweird Science: The Next Generation

From Spaceships to Microchips

With a Foreword by
Writer/Producer Zack Stentz

 Springer

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*To Dad: Couldn't have done this one without
your support, either
KRG
To Mum and Dad
SAC*

Foreword

“Science, Schmience”

“And then we need some schmience right here,” the television writer said as she pointed to the story outline for an episode of a popular sci-fi inflected superhero show, scribbled on the dry erase board.

“Wait, what?” I replied. Despite fifteen or so years writing science fiction for movies and TV, I’d never before heard this bit of writers’ room lingo.

“You know, schmience,” she patiently explained. “The technical sounding bullshit we put in to show how they solve the problem.”

Now I understood.

Schmience, as it turns out, is a wonderfully vaudevillian term that describes an attitude all too common in the world of science fiction movies and TV—an attitude I like to think the volume you hold in your hands subtly but unmistakably pushes against. For schmience sums up the all-too-common in Hollywood attitude that actual science—physics, mathematics, chemistry, and the whole suite of rules that govern the universe—is nothing but a burden that a storyteller should ignore or fast-talk his or her way around with semi-plausible sounding gobbledegook.

Many writers on science fiction projects feel all too comfortable simply creating from whole cloth whatever scientific rules and concepts they feel serve the storytelling need of the moment. A writer on a legal show would never think of creating a new Constitutional amendment to let a heroic lawyer win a case, but all too frequently viewers of science fiction will find solutions that shred plausibility and insult the intelligence. . . even when a more plausible and scientifically grounded concept could have solved the problem just as easily!

In formulating my response that day, what I tried to convey to that talented young writer is the same message contained in this book—that real science, far from being a burden, can be a writer’s best friend, providing rules and rationality to a fictional universe as well as wonderful storytelling obstacles for fictional characters to solve with resourcefulness and imagination.

Luckily we're in an age where bringing real science into visual storytelling has become easier than ever. Google means that answers are seldom more than a few clicks away, and a plethora of fun, readable articles and books about everything from cutting-edge physics to the uses of statistics and probability in everyday life make it simple for an intelligent layperson to get up to speed on nearly any topic.

And groups like the Science and Entertainment Exchange along with more informal gatherings exist to put Hollywood storytellers together with some of the finest scientific minds of the day. It's not uncommon to see groups of screenwriters tromping through nuclear submarines, rocket assembly factories, and particle accelerators, getting a sense for how science and engineering actually work in the real world and storing away anecdotes and ideas that often end up appearing in future projects.

Finally, science fiction films and shows are increasingly employing a new crop of technical advisers, many of them astonishingly accomplished in their own fields to bring depth and verisimilitude to their productions.

That day in the writers' room, I tried to challenge the young writer and all of us on the writing staff to take the time to do some research and see if we couldn't find a real-world scientific concept for our heroes to employ in saving the day (for the record, we ended up finding a novel use for Keplerian orbital mechanics and...well, you get the picture.) I also tried to convey that far from being a chore, doing your homework for science-based projects can be great fun! My own research process has let me do everything from landing on an aircraft carrier at sea and witnessing SpaceX's first successful landing of a rocket first stage on a barge to eating a chunk of frozen squirrel at the Air Force's arctic survival school.

I like to think of this book as another small step in that learning process that the movie and television industry is slowly going through in embracing science as a friend. By looking at and highlighting specific examples of where Hollywood has gotten it more or less scientifically right as well as the times we've gotten it egregiously wrong, the authors demonstrate what an asset scientifically plausibility can be to a storyteller and help push us into an entertainment landscape with a little more science and a little less schmieence.

Los Angeles, CA

Zack Stentz



Zack Stentz is a screenwriter, producer, and novelist who among other credits has co-written *Thor* and *X-Men: First Class* and the novel *Colin Fischer* and written several episodes of the popular CW show *The Flash*. Stentz is currently writing *Booster Gold* for DC and Warner Brothers and putting the finishing touches to two original science fiction screenplays. And he wasn't lying about the frozen squirrel.

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Kevin R. Grazier



Stephen Cass (on left)

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