

How WBA Deals With Science Fiction World Building

I've had a couple people remark to me lately that they thought the world building info I've offered to date has nothing to do with science fiction.

I want to say something on that point. If you're a science fiction writer or game designer, hopefully this will be of direct personal interest, but even if you aren't, it will put you in the picture regarding my approach to and prioritization of world building topics. This will also be of general interest if you work in other niches less common than fantasy world building.

My SF Orientation

First, for those who may not be aware, I am a science fiction author as well as a fantasy novelist and game designer. [My works](#) are published mainly by Tor Books, with my next sf novel coming out in Fall 2013. My longest running rpg campaign (over 30 years old, now) is a science fiction one, which also serves as the setting for my science fiction novels. Obviously, world building in the science fictional arena is of great importance to me and an ongoing interest.

Since I've opened the doors of the World Building Academy, I've offered info on subjects ranging from meta-issues that frame a world (core background design concepts, tech levels), a program on making a constructed world believable, and a variety of blog posts and tips on subjects ranging from geography to social structures.

How much of this is relevant to science fiction? To my thinking: ALL of it.

Sci-Fi World Building

There are four key aspects to science fiction world building. Here's how I see those:

1. Stars/Solar Systems/Planet Generation

First is the galactic-scale framework of science fiction: where in space is your setting located? Do you need to generate solar systems, stars, planets? And then cover them with vegetation and grow populations? Or do you have an odd structure like [Ring World](#) that you need to figure out? This exercise of generating space settings can be a starting point for science fiction world design.

Emphasis here on "can" be. It doesn't **have** to be, especially if your sf game or story does not entail much jaunting about on star ships, but is more planet-centric. More about that in a moment.

2. Technology Development and Consequences

A second key aspect in sf settings is the technology itself. What stage of development are

things at? How does this affect how people live and what happens in your stories? And so on. This is where we decide how common cloning is, what kind of drive our space ships use, or if we all have blasters or light sabers to use. The process that we use for determining the consequences of technology in a fantasy world is the same as that used for a science fiction world. The difference is that the sf setting uses a longer scale of tech development that is more advanced at the high end.

3. Building Aliens and Alien Cultures

Aliens. Such a project, and an essential part of much science fiction. Here we must deal with their evolution and biology, and then their social development that is influenced to a greater or lesser extent by that physical background. The process of developing the alien "kernel" (evolution, biology, basic traits) is unique to science fiction world building (since we already know these things about humans, and humanoid equivalents are often parallel). But once that kernel is in place, the rest of the societal-cultural development process follows the same basic line of inquiry as for other genres. Note that I say "*inquiry*." The answers and conclusions may be radically different from what we get in a human-populated setting, but the inquiry **process** that defines what we need to know about a society is virtually identical.

4. World Building

As long as you have people living in groups, you will have societies evolving, cultures being developed, the rise and fall of civilizations. This is most likely to take place on a planet, but could also take place in other settings: inside a hollow moon, on board generation ships, and so on—whatever's appropriate for your sf setting. As noted above, the inquiry and development process for fleshing out almost all aspects of a world are the same, regardless of the physical shape of the fictional setting or what genre you are writing in.



Planets, Aliens, Societies—and WBA Info

Aside from the galactic or solar-system scale of star generation and mapping, when it comes to sf world building, most science fiction takes place on planets. Even if the action is space- or spaceship-based (like in David Weber's wonderful [Honor Harrington military science fiction](#) series)--even there, it is the planetary cultures and societies that shape the space ship technology, the military culture, and the political issues that drive galactic-level tensions and drama in the story.

Planets are almost unavoidable settings in science fiction. When it comes to habitable globes, we are dealing with the same planet-forming processes that created Earth. We'll find tectonic plates, atmospheres, mountain chains, and so on—all the building blocks of geology and geography that impact a physical setting, just as we discuss in our weekly world building tips.

Planets also end up becoming the cradles of civilization. They are the petri dishes that brew and stew whatever mix of craziness might end up floating around in space.

It all begins with social life on a planet.[1]



Now, that may not be **human** social life. Maybe aliens play a prominent role in your science fiction. But when it comes to aliens, we don't (yet) have a body of xenological science to draw upon. Therefore, whatever we invent for aliens is exactly that—invented—and if it is to make sense, it often draws from or is based on some human pattern of development we are already familiar with. Some of the greatest aliens in the most successful and classic science fiction are patterned after either human societies (Klingons modeled after Japanese samurai), or human anthropological patterns we are familiar with (or logical extrapolations of them, like those found in Jack Vance's work. He was also, not coincidentally, an anthropologist).

To do this, of course, we must first understand the **human** patterns that are an underlying template for the alien riff. Even if we are working with non-humanoid aliens, what we know or posit about the interaction of organisms comes from our Earth-based knowledge base, so our known patterns once again play a role.[2] All this is easier still if we are writing about humans in space, not aliens in space. Again, WBA info explores social patterns, cultural development and

much more. All of this applies just as much to a science fiction setting as it does to an analog Earth of a past era.

Science Fiction Meets Fantasy

Here is where we dovetail completely with the world building processes used to create *fantasy* settings. You may want to substitute “magic” for “technology” (or not!) but in most other regards, the general considerations about habitable planet traits and social development remain essentially the same. Details will vary but the process for determining those details is the same.

If you can build a world, you can fine tune it for science fiction OR fantasy. Your call. But the essentials that go into making a vibrant, living world are the same regardless of your genre interest. That applies even if you've populated a world with aliens. The only difference is that then you have a little more work to do to come up with species biology in addition to a culture that makes sense with that biology in play.

From this perspective, then, everything I've presented about world building applies equally to science fiction and to fantasy settings. Mountain chains still form weather breaks whether your world is 13th century Earth, or 24th century Bajor. Your setting might be a Jack Vance world, but if the locals have formed guilds, they may well follow the same patterns of trade monopoly as occurred in a medieval Earth timeline. And so on. This info will apply most easily if your setting is Earth-derivative with humans. If your setting is wildly variant or features aliens, the world building info will still provide useful guidelines after you've done some adaptation work to apply it. But for the most part, the basic information applies across genres.

The principles I explain often use medieval or fantasy settings as examples simply because those are the widest known and recognized. They're easy to use in a quick weekly tip, and many more people write fantasy than write science fiction. I am using the most easily recognized, universal example sets that I can.

But everything I've talked about, even if it is very specifically placed in Earth time, expresses a principle, example or logic that can be very easily translated into a science fictional setting.

If you design science fictional worlds, you might need to do this mental translation for some of my material. I hope that you will. The information itself is not made irrelevant simply because the example that illustrates the point comes from a different genre. I know this info works and the considerations apply equally to science fiction settings because I apply them to science fiction myself, with good results.

Very Specialized SF Info

As to the generation of star systems and “growing planets,” alien creation and the technology issues inherent in much science fiction: these are much more specialized aspects of world design, and of interest to a minority of readers. This means I will not **routinely** be giving tips and

how-to about those facets of world building (at least not while I'm the sole author of most WBA content. There are only so many hours in the day.).

However, I won't neglect the science fiction I love so much. I plan to offer some specialized programs that dig deeper into the odd niche interest. Later in 2013, for instance, I'll be doing a "Design an Alien" course. I'll offer specialized info from time to time to address some of the unique needs of science fiction world building (along with some other specialized genres, like paranormal and alternate history). Those will be programs, workshops, or series of blog posts and will be clearly labeled about the genre and who they're aimed at.

I'll also refer you to resources that already deal with some things in much more detail than I can get into at WBA. For instance, there are star system generation templates and "grow a planet" books that are quite science-technical in nature. That is beyond the scope of what I can do and support at WBA, and I don't intend to duplicate their work here. But I can point you to these resources and websites to aid in sf world building. This kind of resource page is some of the material I'll be rolling out at the web site when I am done with my other book obligations.

As for everything else I produce at WBA? That is **also** aimed at science fiction world builders. And fantasy world builders. And paranormal world builders. That is to say, ***you need to take the core principles I discuss, and make whatever changes seem useful to adapt it to your particular genre.*** Since most of our world builders are working in fantasy-related genres, I'll continue to draw from that field for most of my examples. That doesn't mean, though, that the information doesn't apply to science fiction. I think you'll find that when it comes to building a specific world, the basic principles of what I present work for any genre.

If You Have Questions...

All that said: if you have *specific questions* or how-to info you'd like to receive that is genre-specific, drop me a note and I'll address it in some manner in forthcoming content. You need to let me know what info gaps you need filled because I'm not actually a mind reader. Usually. So if you'd like something addressed that hasn't been yet, pipe up and let me know what it is you want to see.

1. Sure, there are some exceptions to this. If your protagonists are energy entities that live in gas giants or the heart of a sun, well, that demands a different level of inventiveness. But most sf has its roots in planetary cultures, so I am speaking to the broadest and most common case here.

2. This also skirts the entire question of "how to create aliens that are truly alien", i.e., they do not think or act like humans. I contend that is possible to achieve (or at least come very close to), but it is the result of a calculated and peculiar design process (one I plan to teach at some point in the future). But for most sf settings, especially the majority that include humans or their analogs, using what is known about human interactions is our unavoidable starting point. It is

our actual frame of reference and hard-wired in our brains, even if we choose to intentionally step outside of it as we go along.