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Economics

And Other Topics

World Showcase

Lithish's *Kairos*

— interviewed by *Aaryan Balu*

Feudal Economics

A Crash Course on Commerce and Ownership

— by *B.K. Bass*

Thinking Sideways

About Wooden Walls

— by *Robert Meegan*

With special guests **Lianness**, Assistant Professor of Economics,
and **Dr. Trent Hergenrader**, Associate Professor of English.

Analysis • Art • Interviews

A Community Publication

Prompts • Stories • Theory



12
Thinking Sideways
About Wooden Walls

CONTENTS

20
COINS AND
CURRENCY
CONTEST RESULTS



04
**SHOWCASE
INTERVIEW:
LITHISH'S KAIROS**

27
**EXCLUSIVE
INTERVIEW:
LIANNESS**



35
Feudal Economics

42
PROMPTS

43

**EXCLUSIVE
INTERVIEW:
DR. TRENT
HERGENRADER**

53

**ARTIST
SHOWCASE:
ERIC FRANER &
WRITER BLAISE
JONES**



60
Ask Us Anything

63
Meet the Staff: Zaivy
Luke-Aleman

65
Letter from the Editor

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SHOWCASE INTERVIEW: LITHISH'S KAIROS

INTERVIEW



*Interviewed by Aaryan Balu
Art by Lithish*

Lithish has been creating the world of Kairos, a post-apocalyptic setting set in the far future. This is how they describe their world.

Centuries ago, at the peak of The Last War, the veil that separates the Magical Planes from the Material Planes ripped open and an endless storm poured out. The only survivors were those quarantined from the atmosphere the moment it began, and for generations, they stayed hidden in their bunkers and bubbled cities.

Then one day, the storm vanished.

Explorers set out, expecting a desolate wasteland. Instead, they found a vista filled with life, radiant and strange, with a golden river cutting through its center like an artery. It drove away the storm for 5,000 miles in any direction, and, appropriately, it was named the Vitae. But the occupants of this new world would find little else to agree on. Between clashing over resources and the appearance of otherworldly, murderous Veilbeasts, it didn't take long for City-States to rise and lock themselves away.

But not everyone found refuge in a walled-off city, and these first nomads refused to die...

How do you pitch the world of Kairos to people, and where did the idea stem from?

I'm a game designer, so I've gotten pretty good at high concepts! The one I have for Kairos is: A post-post-apocalyptic world where those who don't fit into dystopian City-States unite or die against an Endless Storm, an onslaught of monsters, and a beautiful but unforgiving landscape—all tied together by the mysterious River Vitae.

The idea came to me around late 2017, as I sought to create a tabletop campaign that felt different. I've long had an interest in tabletop roleplaying, and I'd crafted several worlds that never quite felt right. The campaign set in Kairos, titled *Veiled River*, actually needed three failed campaigns before I got it to a place where I'm truly proud of it. The content I've written for it got me into college, so I think that pride is deserved!

Kairos itself is sort of my dumping ground for crazy ideas that don't fit into my other world, Overre. Mutating forests, dead gods, plainslands that are actually swampy canopies, science cult cities, knockoff nature tieflings... Kairos has it all!

How exactly did the project get you into college?

When I was first applying to my school, AIE Seattle, I expected to go into Game Art. Of course, that changed when I heard of a brand new course in Game Design, which was what I'd actually wanted to pursue! However, my interview had already been scheduled, giving me two weeks to assemble a game designer's portfolio when I'd gone in with an art one at the ready.

Fortunately, I was something of a spreadsheet wizard, and I had just the thing half-done: A series of reference documents, lovingly arranged and illustrated, suitable for any campaign based in Kairos! It also had the homebrew mechanics I'd created for it, such as alchemy, some NPC profiles, a map, and a random generator for foraging and hunting. It was a beast!

The headmaster accepted me into the school the moment the interview concluded. I must have done something right!

That's awesome! Going back to the world, what do we know about the Last War and the apocalypse?

That exact question is one that haunts the player party, and really all of Kairos! Most of the knowledge of what happened during The Last War is lost or sequestered in City-States, so almost no one is certain. Obviously, I know exactly what it is, but just in case my players read this, I'll keep that to myself!

Theories abound across Kairos, but the facts are: the Veil is an immaterial planar divide, but somehow it was physically torn and a rift exists somewhere—probably around Bluespire, a City-State that no one can get beyond the massive walls of or see into from above. About a mile north of Bluespire, the Endless Storm that comes from the Veil is at its fiercest, but a mile south of the City-State, the River Vitae pours out from a cavern in the mountain face and drives off the storm.

To say that everyone wants to know what's going on there is an understatement. Countless people have died either defending Bluespire or trying to get into it, and given that it has sent no response, it's safe to say it's either utterly uninhabited or wants us to think so.

What can you tell us about this central River Vitae and its interaction with the Endless Storm?

The River Vitae is about 15,000 miles of fast moving water with a haunting golden glow. The flora and fauna that come into contact with it become golden or silvery and take on mysterious properties that alchemists are still unraveling... and most of them are poisonous unless processed, though they all look delicious. This effect lasts for about ten miles around the banks of the river, and it only gets stronger and wider when the river breaks off into deltas near the coast.

The Endless Storm, on the other hand, is a dense, swirling purple-pink fog filled with lightning and acid rain. Even before it's dense enough to burn your flesh off, breathing it in has permanent detrimental effects... that are startlingly similar to drinking the Vitae's water uncleansed.

Some theorize that the two are like opposite sides of a magnet, locked in an eternal balance, but no one is sure. Certainly, the Vitae is the reason life exists in Kairos, but if it has a soul, it's certainly neither benevolent nor malevolent. Perhaps the same goes for the storm. Maybe it's not evil... just angry.

Many stories within Kairos trace the tension between the River Vitae and the Endless Storm to the Last War. It seems like a striking similarity, and it would explain why the Veilbeasts are so aggressive: they're soldiers in an endless war, nothing more. The infamous arcozoologist Tarsha Lamané is a staunch advocate of this view!

Speaking of life on Kairos, what kind of creatures and civilizations exist on Kairos?

Oh, you've hit the jackpot. Kairos is home to six City-States with wildly different societies, governments, and inhabitants as well as five outposts united by the nomadic way, each distinct in their own ways. Each of them really deserve their own interview, from the industrial city-under-the-mountain Dwivirghaten to the woodland outpost where heroes go to die, Sentinel.

They've all got their own aesthetic (baroque utilitarian for Xana Irida), their own theme song (Xenoblade's *Mechonis Field* theme for Delta Gate), their own economies (Veyrindell is like if Las Vegas was in the deep woods), their own inspirational media (Helios is basically Cyberpunk Hamilton)...I could go on at length. What really matters is that the differences between them is what makes Kairos so vibrant and so fun for my players to explore!

As for creatures, well, the wildlife is pretty typical of my current home state, Washington, but Veilbeasts have their own little ways of life when they're not killing nomads and are far more fantastical. The people are the fun bit, though: I have races sourced from the [Starfinder SRD](#), like telepathic Lashunta, but also the hooved and horned satyr-like Dryads of my own creation. The difference between Kairos and most tabletop worlds is that this planet has existed long enough, and enough of the old world was lost, that most societal differences between these races are gone. Sure, certain City-States favor or loathe certain races, but in the badlands, everyone shares



language, ideals, lifestyles, etc. The homogeneity of the nomads makes it easy to connect with strangers, which is absolutely critical in a world where

strangers often depend on each other... but it also allows for more uniqueness of self!

Sounds like the tension between city and badlands is one of the central themes of the world. Where do your players fit into this overall scheme?

The players take the role of nomadic Adventurers, the warriors and mages that are sworn to protect the nomads from threats of all kinds. I work with each player to connect them to the world in unique and powerful ways, then set them loose as a party of three to four to explore the world as they see fit.

What they don't know starting out is that they're bound together by Fate from two sides. The last surviving god, Fortuna, brought them together under their light, but a creature from beyond the Veil has designs on them as well, rendering them all uniquely powerful and uniquely able to bring change to Kairos—however they deem necessary. So, they have the weight of not one but two worlds on their shoulders, Kairos and whatever's beyond the Veil!

This means they can do literally whatever they want or deem fit. Infiltrate City-States, explore the badlands, take down bandits, make alliances, build new infrastructure, unravel the River's secrets... It's totally up to them.

Of course, the fun bit is learning all this and gaining new powers that nobody has ever seen before. I have a whole system designed to allow them to use magic in new and innovative ways, and I couldn't possibly ask for a better party to give that power to. If you're reading this, guys, you're awesome!

What are the world's religions like? If Fortuna is the last surviving god, have the others all perished—and if so, do people still remember them?

Great question! Yes, every other god vanished when the Veil was torn, and the mortals of Kairos assume they're all dead. Fortuna's existence is a huge secret! If certain bodies of interest were to find out they're around, they wouldn't last very long, and they're keenly aware of this fact.

The old gods only live on as myths and legends in what few books and stories remain to document them. They're treated like fairy tales at this point, spoken of to entertain and teach rather than as an

act of worship. As for what people actually worship, well... most people are pretty sure that whatever the River Vitae is, it's divine, and many worship Bluespire as a holy site. Not that even getting up to its walls is an easy feat. Forget about a reasonable pilgrimage.

What can you tell us about some of the City-States, in broad overview? Do the civilizations tend to cluster near the River Vitae?

Some of them do! Helios is right by the river, which is advantageous to its agriculture-based capitalist economy and power-hungry oligarchy. Meanwhile, Dwivirghaten is pretty far away from it, tucked beneath the mountains of the Blue Maw where it can easily mine for metals to smelt into technology and trade goods—without nomadic trade, its people would have starved long ago.



Delta Gate is, as you'd imagine, a scholarly community positioned over a hydroelectric dam on the Vitae's delta. Some get in, but no one gets out! Contrast that with the deep-woods of Veyrindell, who have long had open gates to nomads... and criminals... and gang lords. It's kind of been overtaken by mafia guilds now. But hey, tourism!

The Eye of Atlantis and Xana Irida are the nightmare states. Neither trades with other cities, and both have mysterious goals that involve the calculated, strategic murder of nomads. They both seem downright omniscient. They both have terrifying puppet-like agents that do their bidding beyond their walls. They're both critical to the overarching plot... It's just that one is in the woods and the other is half under the sea. Obviously, they're quite different once you get inside, but not to the nomads!

The players are encouraged to find a way into each of these cities and unravel them, but some will be more welcoming than others... and not always for the best reasons.

Is there much of a disparity in technology levels between City-States or between cities and the nomads? The hydroelectric dam and the half-under-the-sea city come to mind especially.

You'd be right to assume the Eye of Atlantis and Delta Gate are the most technologically advanced. Before the Last War, society was right on the cusp of interstellar travel, but much of that was lost in the war. Only City-States have the resources to make such advanced tech now, but magical augments allow nomads to have cell phones, hovering caravans, laser guns, drones, robotic prostheses, and even android family members! It's nothing on what the City-States have, but it's still a bit more advanced than what first-world countries have today, with a fantasy twist, of course.

This technological difference is another factor in the tension between nomads and City-States. Some nomads resent the City-States for keeping their prosperity behind locked gates; others see it as incentive to steal and reverse-engineer tech from them where possible. Adventurers are often seen toting stolen gear since they're the most likely to infiltrate the states that can be infiltrated at all!

What kind of challenges do adventurers/nomads face in the Badlands? What's survival like?

Nomads live constantly on the move except for those few who risk a permanent life in outposts so the travellers have a place to rest, trade, and restock. I would definitely say the biggest challenge, aside from fighting off Veilbeasts and the looming threat of an attack by certain City-States, is just staying fed and moving. It's not just Vitae flora that's poisonous—pretty much everything in the Ruby Wood is dangerous in some way, and it mutates and evolves too rapidly to keep up with easily. Similarly, almost nothing above the tightly-woven, plains-like canopy of the Shekhali 'Grassland' is edible, and going down into it is as dangerous as it sounds.

Many caravans are solar or magic-powered, but if one breaks down in the middle of the road, you'd better really hope a mechanic finds you before a Veilbeast does. And, of course, depending on where you are, there are bandit guilds to deal with, most notably the Scrappers of the Shekhali.

It's a pretty typical survival situation, in all honesty—just against a vibrant backdrop and with themes of unity and hope, instead of selfishness and desolation. I personally find most apocalyptic stories to be far less interesting than the few that portray humanity as flawed but inherently good and giving, and I bring that into Kairos!

I like that backdrop, and I can totally see it being the setup for a heroic-style campaign, despite the harsh environment and risk of death.

Death is common in the badlands. All outposts are surrounded by graves, and everyone's lost someone. Hope is the only thing that really keeps the nomads going—hope and unity. No matter how different they may be, they all have one thing in common: they're too different, too defiant, and too free to live a life in a City-State. This noble creed is one countless nomads have paid for with their life, but to the survivors, it's worth it.

What, precisely, do we know about Veilbeasts? They sound like the biggest danger out there.

That's definitely the case! City-States cropped up in the first place to protect certain sects of people from them, and that's kind of what started this whole mess.

somehow, perhaps through telepathic links. But that doesn't make them a hivemind, though they share goals and seem to answer to the same higher power.



Veilbeasts are highly intelligent and come with immense diversity, from cavern-dwelling and scaled canines to raptors with blades instead of feathers. They seem to be social, preferring in most cases to attack as coordinated groups rather than alone. They hunt and eat humanoids as well as animals but never each other. Mixed-species nests have been found, though they don't interbreed.

Communication with Veilbeasts may well be possible. They don't seem to have any language, but they definitely communicate with each other

While a majority of Veilbeasts are born through normal reproduction and raised by their nest community, there are rumours of beast 'mothers' existing in hidden places in Kairos. One is believed to have been killed by Heliosi android

soldiers, a blooming winged centaur. What this means for the propagation of Veilbeasts is unknown.

Almost all of this knowledge (and some big secrets I won't disclose) were discovered by the only scholar of Veilbeasts to exist, Tarsha Lamané. She's a controversial figure, to say the least, but it's hard not to love Kairos's Steve Irwin up close. Her discoveries have saved countless lives, whether her critics like it or not.

Is the term "Veilbeast" considered to be an umbrella for a class of creatures? And how has Tarsha Lamané managed to do so much research?

'Veilbeast' is definitely an umbrella term! It applies to all extraplanar creatures that exist within Kairos, simply because all extraplanar creatures that exist within Kairos are monstrous beings from beyond the Veil. Dr. Lamané has divided them into sub-groupings based on common traits, but few tend to use these since the only reason anyone would care to know more about Veilbeasts is to kill them more easily... or so most believe.

Lamané disagrees firmly! She believes an armistice could be found, and while much of her work comes from studying the corpses of felled beasts (which must be magically preserved or they'll dissolve into purplish ash), she claims she's managed to approach some without provoking hostility. Whether she's telling the truth or not is anyone's guess.

Where does Lamané work out of, and how far is her information able to spread given the circumstances?

Lamané is a nomad, operating mostly out of the wood-sung outpost Hag's Hill, though she travels quite a bit. Virtually no City-State knows nor cares about her, but she's gained considerable fame in the Badlands by posting videos of Veilbeasts in action or just living their lives on social media. Fun fact—Kairos has social media! The nomads have an app akin to a cross between Reddit and Twitter, and most City-States have some equivalent. This means influencers and icons exist, including some who are famous both inside and outside the city walls.

How have your players interacted with that app, if at all?

Not much (yet), but the app has certainly interacted with them! When they accomplish a considerable deed, I make sure to tell them that they're trending, and that videos have been posted of their actions. They've gained considerable notoriety among the nomads and the City-States are starting to pay attention to them... which isn't exactly a good thing, considering the circumstances.

I've got a plotline planned where the nomadic idol/influencer Ferrus Shrike takes them in and shows them how to gain real fame, and I imagine at least one of my players will be interested. We'll see how it goes!

Also worth noting is that the players have an app I rebuilt in Google Docs (soon moving to Legendkeeper) called the Fortunadex, a catalog of information maintained by their patron deity Fortuna. Fortuna is very good at names. Don't give them that look. This is where I post session logs, allegiances, questlines, party inventory, and stuff like that!

Very cool way to intertwine the in-game world and reality. What would you say have been some of your biggest influences in creating Kairos or any other game world?

Hoo! As a game designer, I'm all about analyzing influences and inspirations to make a project stronger, so this is a real sweet spot for me. Growing up, I was a huge fan of the *Dragonlance* chronicles, which have influenced the twists and turns of the plot and the nature of the NPCs. *The Legend of Zelda* series and my favorite game, *Hollow Knight*, are my main inspirations for the existence of such varied biomes in close proximity and the way they're filled with secrets, but the biomes themselves (and the way towns dot a savage landscape, with miles upon miles between them) are based on my home state of Alaska.

The Xana Iridan Archwizards, their puppeted agents of death, are inspired somewhat by *The Blair Witch Project*, and many other horror touches can be found within Kairos. The wonder and whimsy of the world itself was influenced heavily by my years playing the web game *Flight Rising* (Arcane for life!). Finally, none of it would exist without the ingenuity of my boyfriend, Clover, and my best friend, Antic, for joining me on this wild ride and helping me really bring the world to life.

Awesome. If you had to pick, what's your favorite part of the world you've built?

That question is evil. You're evil for asking it.

If I absolutely had to pick, it'd definitely be the secrets. After eight months in Kairos, my player party is just barely scratching the surface of its secrets and the potential of their characters, and guiding (or misguiding!) them towards answers to their many questions has been an unmatched joy for me.

Great to hear. Any last thoughts or takeaways on Kairos, tips to worldbuilders, or ideas you're trying to get across when building this world?

I have this to say to other worldbuilders, for sure: Be brave. Be honest. Don't make your world to satisfy anyone else, and don't compromise on what you care most about. The more your world reflects what you love, the more joy you'll put into it, and the more joy your audience will get out of it. Believe me, and believe Kairos's prosperity after three failed campaigns: You won't regret putting your soulscape on display. 🌐

This interview was edited for Worldbuilding Magazine.

Thanks to Lithish for joining us! You can find their work on [Twitter](#), [Instagram](#), [Artstation](#), or on their [website](#).

If you would like to be a Showcase interviewee, [click here to apply!](#)



THINKING SIDeways ABOUT WOODEN WALLS

ECONOMICS HISTORY FANTASY 

by Robert Meegan

While thinking sideways is a great tool for working around an obstacle in your worldbuilding, it can also be useful in other situations. One of these is differentiating your world from everyone else's. Irrespective of your genre, it's almost certain that you're going to come face-to-face with the same needs and constraints that others have faced. What separates out the great worldbuilders, those whose creations we remember and cherish, from the mediocre masses is the ability to make something that is new and bold, while still remaining believable and internally consistent.

Let's look at an example that commonly occurs in fantasy worlds. For any number of reasons, it's useful to have one or more powerful nation-states. Even if you aren't planning to make politics a driving factor for your characters, having epic events play out in the background can be used to drive the plot and show that the world is larger than just the handful of individuals that are the center of your story.

Many settings use one of two approaches to create their political landscape. One option is to have several nations that are of roughly equal size and with similar resources and play them off against each other. The other choice is to have a huge empire that dominates the other countries. This empire can either be on the edge of the map where it poses a constant threat, but isn't central to the action, or to center it on the map with the other nations taking on fringe roles. A few settings will pit two great empires against each other, but this is less common in both roleplaying and character-driven literature, because the principal theme of this scenario tends to be a clash of cultures, so individuals aren't in the front and center.

While all of these can and have been used successfully, let's think sideways about how we could create something different. What about a nation that was powerful not because of the size of its armies or its vast territory, but because it could economically outperform its neighbors? To crank it up even before we begin, what if the country was small and not particularly rich in resources? You might be wondering if such a thing is even remotely plausible. Tiny economic powerhouses have appeared on our Earth many times in the past. As an example, the per capita gross national product of the Netherlands was roughly equal to that of the French in 1500 CE. Two centuries later, near the peak of the Dutch East India Company, the Netherlands was earning nearly 2.5 times as much per capita.

COME SAIL AWAY

The difference between a majority of fantasy settings and our reality is that the created worlds only use somewhere between thirty to forty percent of the available space. More specifically, they generally focus upon the land and ignore the seas. That's great if you want enormous bands of nomadic warriors thundering across endless steppes to pillage and loot your precious civilizations or if you anticipate great clashes of armies as warring kingdoms hurl themselves at each other. The problem is that it ignores one of the great alternatives that civilizations have used to conquer new territories and develop wealth far beyond anything of which the horsebound hordes could ever dream. Until a mechanized age arises to make land transportation fast and efficient, the lifeblood of nations is water. Those confined by terrain or neighbors take this with a grain of salt and turn to the sea.

Nations that relied upon nautical prowess appeared around the globe. Extreme examples include the Tongan Empire in Polynesia and the North Sea Empire. The Tongans enjoyed the generally benign waters (at least when a typhoon wasn't roaring through) of the Pacific Ocean, but their islands were small and widely scattered. Surrounded completely by ocean, the empire lasted around four hundred years with the primary threats for most of that time being internal conflicts. On the other hand, the Norse and Danes had huge tracts of land that abutted other nations, but the core of the empire was the North Sea, with its well-deserved reputation for being anything but pacific. With the corners of their empire anchored in Norway, Denmark, and England, the North Sea was in large part an internal body of water. Both of these examples are interesting and have potential, but they're not exactly what we're looking for.

While the ancient Greeks certainly weren't the first to come up with the idea of rule by sea power, they were the first to put a name to the practice: *thalassocracy*. Greek interest in the concept makes perfect sense because the Mediterranean was an entirely different type of sea. It possesses several key elements that made it perfect for sea-going nations. The weather is both consistent and favorable for navigation from late March through early November. This long period of steady winds and few storms made it possible to conduct military campaigns by sea, as well as being able to send ships on multiple voyages each year, maximizing the utility of each vessel. Even the winter period was not so severe as to entirely shut down travel.

Another characteristic of the Mediterranean is that along the shore are broad, flat beaches where ships could pull ashore. This was a matter of great importance for the oared galleys that served the region for nearly 2,500 years. As a rule, these ships did not spend their nights afloat, but pulled up onto beaches where the crew could cook, replenish water, and sleep. From a military perspective, it was particularly important that many beaches were large enough to allow anywhere from dozens to a couple of hundred ships to come ashore together. This made command and control much more effective and prevented an enemy from slowly destroying isolated elements without ever having to face the entire fleet.

The Mediterranean also offered a plethora of other nations to trade with. Economic theory has demonstrated that having external trading partners greatly benefits a country. Inevitably, there are products that you can produce in surplus quantities, while there are others that are either very costly or impossible to create. The ability to exchange these goods allows your economy to operate most efficiently.

Just as inevitably, success breeds enemies, and enemies mean conflict. Having a navy serves as a force multiplier for an army, since a smaller number of soldiers can still be effective if they are able to move more quickly to critical locations. While the Romans were legendary for their ability to conduct long forced-marches, there is a clear benefit to using naval transports to avoid expending the soldiers' energy and morale. A fleet can also be used to attack the enemy's ships, potentially sending their army to a watery demise before they can even line up for battle. An additional strategic role for a navy is blockading the opponent's harbors, keeping reinforcements, food, and other supplies from arriving.

THE TIMES THEY ARE A-CHANGIN'

In 508 BCE, the Greek city-state of Athens began one of the great political experiments by instituting a democratic government. This was made possible in part by Athens being a relatively small city, with little history or tradition, and in part by the Luarium, a vast silver deposit located near the city. Much like oil-rich governments today, the Athenians voted each year to give themselves an annual dividend from the wealth dug out of these mines. In 483 BCE, Themistocles, one of Athens's *archons*—the title given to the city administrators—was able to convince the Assembly (literally all of the free, adult, male citizens of the city) to spend the entire allotment, worth the equivalent of months of income for most average people, on the construction of a new navy of roughly two hundred ships. What's more, he was able to do this with a single speech delivered without a Teleprompter or PowerPoint slides, setting an oratory standard that few politicians in the next twenty-five centuries have met.

Athens needed this navy because their army was small in comparison to the other Greek city-states. Making matters worse, just off the map lay the Persian Empire, which stretched from what is now India, across Asia Minor, and as far west as Egypt. As might be expected, Persian king Darius had decided that Greece would be a nice addition to the empire. While the Athenians had managed to hold off one Persian attack at Marathon in 490 BCE,

Athenians went before the Oracle, the response was considerably less satisfactory. Apollo informed them that their city would be torn down and the streets would run with blood and that the only salvation for the people was to scatter as far and wide as possible.

Perhaps recognizing that returning to Athens with this message wasn't going to make them popular, they asked again and this time received a more



Adam Bassett

there was a sense that it had been the result of good fortune, and even pious Athenians had to question if the gods would always favor them so strongly.

They got their answer in 480 BCE, when Darius's son Xerxes marched again. The Greeks went to the Oracle at Delphi and asked what would happen. The Spartans were told that their city would survive, but a king would die. From the Oracle, this was about as clear and concise as augury went. They departed, if not gladdened, at least with confidence. When the

typically cryptic response that said, in part, "Far-sighted Zeus shall grant unto Athena a wooden wall. It alone shall come through uncaptured—good fortune for you and your children." After deciding that building a fence wasn't going to deter a quarter-million-man army, the Athenians put their trust in Themistocles and his wooden ships. He repaid them with two decisive naval victories that broke the Persian navy and which eventually drove Xerxes out of Europe.

This was the start of a period of about 160 years of Athenian prosperity. Two factors played an outsized role in maintaining democracy and naval superiority in Athens. The first were the requirements that all who served on board ships were citizens and that all citizens were required to serve. Despite being a nation dependent upon slaves, Athenians held the strong belief that only free men should fight in the defence of the city. As such, in the instance when they were desperately short of crews to man the ships, they passed a law granting freedom and citizenship to any slave who would serve. Since all citizens served in times of crisis, regardless of status, this also meant that the wealthy and powerful found themselves sitting on benches pulling on oars alongside lowly laborers and farmers, and then eating together on lonely beaches. This forced mixing worked to unite the society by exposing members of various social classes to each other in circumstances that couldn't help but inspire comradery.

The other aspect of Athenian law and culture that allowed continued control of the sea was the expectation that wealthy members of the community would fund the construction and outfitting of triremes—their war galleys. Furthermore, these individuals commanded those vessels in battle and great personal glory was afforded to those whose ships were most successful. The high stakes of death and prestige encouraged the construction of the best possible ships and the expenditure of time and money to ensure that the crew was well trained and ready. The most obvious equivalent in our times might be the rise of private rocket companies such as SpaceX and Blue Origin, funded by billionaires competing with each other for bragging rights. Their efforts have completely changed the nature of access to space by shaking up the established companies and technologies.

While you may be thinking that oared galleys might be too backwards for a normal fantasy setting, remember that the last major engagement fought by two fleets of rowed vessels was the Battle of Lepanto when roughly two hundred galleys of the Holy League clashed with about the same number from the Ottoman Empire in 1571 CE. As proof that

history echoes, the battle took place not all that far from where the Athenians had beaten the Persians 2,050 years before and the results were almost the same, with the Europeans crushing the Ottomans.

Setting an Athens-like nation into a swords and sorcery campaign, surrounded by barbarian lands and despotic kingdoms, might be particularly interesting. Perhaps the characters could begin as slaves captured in some barbarian raid or a skirmish with one of the great kingdoms. In a moment of crisis, they are offered their freedom in exchange for pulling an oar. Their contributions to the ramming and glorious capture of an enemy flagship in mortal combat could raise their status and establish them as heroes, with all that entails.

SEND LAWYERS, GUNS, AND MONEY

While the idea of a small, progressive nation of philosopher-scientists definitely has potential, it's certainly possible that people might want something with a little more zest, a little more staying power, and (let's be honest here) a lot more nastiness. After all, while 160 years is nothing to sneeze at, it is pretty pathetic compared to, say, 1,100 years. A place like that has staying power that would allow plenty of rich history.

It would be nice to have a nation that *mattered* on the world stage. Athens remains the birthplace of democratic government, but they weren't very good at selling it. Even their closest neighbors weren't that impressed. We want someplace that has genuine authority, at least over their corner of the world. A real player at the Great Game.

As worldbuilders, places that have a lot of moral ambiguity provide more room for developing stories. Yes, the Athenians had slaves, but they wouldn't even make them row the galleys. While that's a rather narrow distinction to draw, it doesn't really add up to moral ambiguity. At that time, everybody had slaves. When you captured an enemy ship, you either enslaved the crew or you slaughtered them. At least slavery offered the option of being ransomed or traded for captives taken by your side. What we're looking for are people who don't particularly distinguish between good and evil, if profit is involved.

Fortunately, just such a nation existed to serve as a template. What's more, we only need to move one sea to the west to find it. At the northern end of the Adriatic Sea, there is a protected lagoon nestled on the coast. This natural harbor was soon recognized for its value by the Roman emperor Marcus Aurelius, who raised fortifications. By 200 CE, it had a hundred thousand residents and within two centuries after that was considered the ninth-greatest city in the Roman Empire with an imperial palace as a centerpiece. Alas, the Visigoths besieged the city in 401 and 408 CE and Attila the Hun showed up and on 18 July 452, his army razed it to the ground. The residents were resilient and rebuilt the city, albeit not to its former greatness, just in time for the Lombards to sack it in 468 and again in 490.

At this point, the remaining residents of Aquileia decided that perhaps their city had become too popular with visitors and moved roughly ninety kilometers to the southwest, where they met up with Italians also fleeing from the Lombards. The new site was also a lagoon and offered numerous islands that could be built upon, making them harder to besiege. The settlers named this new city after a tribe that had dwelt in the region for at least a millennium: the Veneti.

Although the precise details vary depending upon the source, legend has it that in 697 CE, the local nobles, with the not too gentle encouragement of Emperor Leo III in Constantinople, got together to elect a duke (*doge* in the Venetian language) to organize the region of the lagoon into a single government, in the hope of holding off the Lombards. This marks the founding of the Republic of Venice, although the next sixty years or so had a couple of interregnums. By the latter half of the eighth century, the Republic began to develop into the form that would see it through the next thousand years, with only occasional assassinations, feuds, and the like.

Skipping forward in history nearly four hundred years, to the time of the Fourth Crusade, Venice was poised precisely between a succession of western empires and Constantinople, which put it in a position to profit handsomely. When the knights arrived in Venice in 1201 to negotiate passage, the Venetians agreed to transport 4,500 knights and

9,000 squires, along with 20,000 foot soldiers and the horses for the mounted men. Their price was 84,000 silver marks. Venice would also provide fifty war galleys and crews at her own expense and all that was requested was one-half of all territories conquered. Of course, at the same time as they were working out a deal with the Christian knights of Europe, Venice was also negotiating a trade deal with the Muslims in Egypt.

Politics and economics being what they are, the crusaders found themselves short on cash when the time came to pay for the passage. Fortunately for them, a usurper had taken the throne in Constantinople and the rightful heir was in Germany and offered to pay the remainder of the passage, along with supplying additional troops for the crusade, if they would first restore him. Faced with such a worthy cause and knowing that they had been commissioned to provide ships to Constantinople (a contract that was running rather late), the Venetians leapt at the opportunity.

Constantinople had managed to hold off every attacker who had ever faced its walls, but they had never been challenged by anything like the Venetian fleet. Just as significantly, they had never run into the Venetian leader, Doge Enrico Dandolo. Despite being ninety-seven years old and completely blind, the Doge had his flagship lead the charge against the sea wall, and was one of the first to set foot on the beach. The usurper slipped away that night with nothing but 10,000 pounds of gold and the shirt on his back. The new emperor found the treasury empty and proceeded to renege on his agreements. Within months, he suffered a severe bout of death as a new usurper grabbed the throne. This even newer emperor pointed out that any deals had died along with those who made them.

The Venetians and knights discussed this matter and decided on an equitable solution. They would together select a new emperor. That individual would receive a quarter of the city and the empire while the crusaders and Venetians would split the remainder equally. When this army and fleet attacked the city again, it held out for several days before falling. With the treasury being rather depleted, this time the emperor was only able to bring a pair of women with him as he made a hasty

departure. The city of Venice, which had perhaps 70,000 citizens, now found itself with a network of colonies all across the eastern Mediterranean, including such strategic sites as Crete, Corfu, Negroponte, and Rhodes, as well as more than a third of one of the greatest cities in the world.

TAKE THE MONEY AND RUN

Perhaps more importantly, the Venetians began to reorganize themselves into something new: a nation of traders. Unlike the other Italian city-states, such as Padua and Genoa, and completely opposed to any traditional nation like France or England, the Venetians had the unique advantage of *intimacy*—the citizens of the Republic were no more than a short walk from each other. This proximity meant that merchants knew each other and could quickly assemble an expedition to trade with a distant location. What's more, and perhaps for the first time ever, a system was developed and codified that allowed almost anyone to contribute even small sums of money to fund such a venture and then to reap the rewards.

What made this system work was something unique for a nation so large and prosperous. Since no system of extradition existed and the framework of international law was almost minimal, there was almost nothing that could be done about a merchant who took his investors' money and simply ran away. Instead, the structure of Venice as a commercial state made such an act economically unprofitable. No other nation could offer protection for convoys of ships or the exclusive rights for foreign trade in many of the richest ports. Even the threat of sanctions against those who traded with outlaw merchants would be enough to eliminate many markets for them. In essence, Venice's domination of trade in the eastern Mediterranean served to enforce social and financial contracts in a way that mere laws could not.

Cheating the investors was equally ruinous. Venice posted agents in foreign cities who monitored prices, and manifests were scrupulously checked by customs agents. Merchants were required to provide investors with precise accounts within a month after each voyage. Those who were caught cheating quickly found the pool of investors had dried up.

The reputation of the merchants were common knowledge and, simply put, any gain from fraud was overwhelmed by the potential loss of future business opportunities.

This self-policing mercantile system shouldn't be confused with morality. At best, it was enlightened self-interest. As seen by the simultaneous negotiations with the Christian knights and the Islamic sultan, Venetians were not particularly scrupulous about what they traded and with whom. In particular, there was a steady trade of slaves between the Black Sea ports and Italy. Slavery was legal in Italy until into the sixteenth century, as long as the enslaved party wasn't a "Latin" Christian male, defined essentially as being of Italian, French, or Spanish heritage. While in the medieval period the Mediterranean slave trade was dominated in west by the Catalan and Portuguese, the Italians often scooped up Greeks, Turks, Malmuks, and Arabs. By the second half of the fourteenth century, Genoa and Venice had formed a monopoly on the trade in the eastern Mediterranean, with each importing roughly a thousand slaves over the next century. It is likely that the numbers traded on to other destinations was as much as ten times greater.

The source of slaves had also shifted from the Levant and Greece to the Black Sea. Both the Genoese and Venetians traded heavily in ports such as Kaffa and Tana. While the primary cargos were products from the rich agricultural regions of Ukraine and the Caucasus, a steady stream of slaves was brought back. These were a mix of native Russians, Circassians, and especially Tatars. These were not captured by the Italian traders, but were either brought in by neighboring communities or sold by their own families.

The nature of the slaves brought back to Venice is interesting. Eighty-two percent of them were women. The average age of the women hovered around twenty years old, while the men tended to be in their early teens. While slaves made up only a very small portion of the population, they were owned by a broad cross section of social classes and occupations. Some indication of precisely what factors entered into the ratio of male to female slaves in Venice might be found in laws that started appearing regarding the illegitimate sons of Venetian



 *deificat*

fathers and slave mothers. These started with granting them manumission and continued through citizenship, inheritance rights, and eventually the transfer of noble titles. Needless to say, female offspring were not covered by these laws.

TAKIN' CARE OF BUSINESS

So, now it's time to look at how we might use a thalassocracy in a fantasy setting. We've had the opportunity of seeing how they worked from the bronze age up to the age of discovery, so it should be possible to fit one into almost any world. For our purposes, we're going to pick a location more like Genoa, so that our city is backed by almost impassable mountains, rather than a swampy lagoon. We can have one easily defended river valley providing access to the interior, to allow for trade in that way, but for the most part, our city will live and die by the sea.

What would characters do in such a place? Perhaps one is the second child of a noble house (we'll ditch the rampant sexism of real history), being groomed

for a role leading future trade missions. Another is their bodyguard, fast with a rapier and large enough to engender respect from those in places where the laws are what you make them. A third belongs to the guild of wizards and is seeking rare ingredients that might have been brought by caravans from even more distant lands. The last is, to all appearances, a minor bureaucrat, tasked with accounting for goods bought and sold, for both financial and taxation reasons. In reality, they are a spy, working for the senior nobility and tasked with gathering information about the city's competitors.

Together they board one of the merchant cogs, its holds laden with luxuries like wine and fine fabrics that will be traded for exotic furs, priceless spices, and even mundane grains. As the convoy moves out, the twenty slow, tubby sailing ships are soon joined by their escorts, seven sleek war galleys. As they move into formation, each merchant captain raises the banner of their house to the mast top. The galleys respond by raising the flag of the city and across the water a roaring cheer can be heard from the sailors of each ship.

What adventures lie ahead for the travellers? Will they be forced to fight off pirates or the ships of a hostile city? How will they deal with the strange traders at their destination? And are any of them prepared for what awaits them in faraway lands, where they will find themselves embroiled in epic adventures that will drag them to the ends of the world? 🌐

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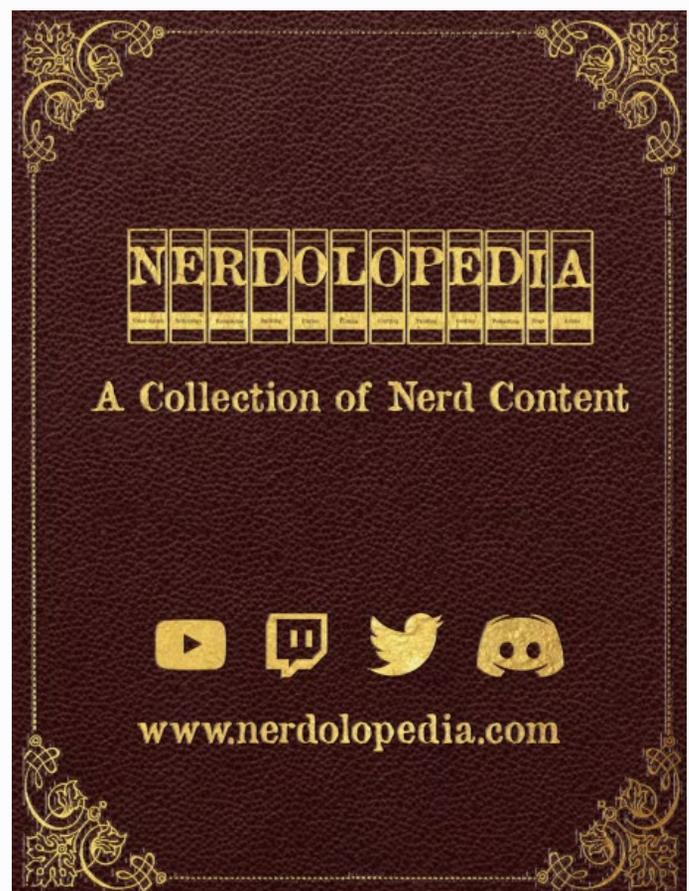
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COINS AND CURRENCY CONTEST WINNERS



by *Worldbuilding Magazine & World Anvil*
Foreword by *LieutenantDebug*

Hello reader! It is my pleasure and privilege to present to you the winning entries of the *Coins & Currency* contest, a collaborative effort between ourselves and our friends at World Anvil. This is our second contest with World Anvil; the first being Frightful Fauna, which you can find in our October 2018 [Creatures issue](#). This time around, we're featuring two winners, one from each of World Anvil's contest leagues. The first entry is from their Standard League, while the second is from their Premier League, composed of previous contest winners.

I want to extend a huge "thank you" to everyone who participated. We all enjoyed reading your creative and varied entries; it was certainly difficult to pick a winner. I also want to thank World Anvil for allowing us to sponsor one of their regular community challenges. If you'd like to participate in more contests like these, you can check their current challenges [here](#). They have a great community that can help with sharpening your worldbuilding skills and providing resources to take your world to the next level.

So why currency? Well, it made sense for our *Economics* issue, as currency forms the backbone of any economy of sufficient size to require one. It also serves as the perfect starting point when you start getting into your world's economies. The various currencies' histories and cultural impacts give you plenty of ways to tie them into your existing lore, as well as give you more trails to follow as you worldbuild. Here's an excerpt of the contest description, by the illustrious Barron, an [Enchanter](#) (Outreach Coordinator) at World Anvil:

"A nickel ain't worth a dime anymore." - Yogi Berra

Money is as normal to us as drinking, eating, or sleeping. It dictates much of what we can do, and when we can do it. We have countless cultural references to it: music, movies, poems, art. There is not an aspect of our life that hasn't been affected by currency. Despite how normal money is in our life, we often take it for granted in our worldbuilding!

ONKAKASKA

By M Kelley

Art by M Kelley

If you look closely enough, you see: the world is held together by knots.

— Ibraim, Hohatu Caravan Driver

Onkakaska is the elaborate currency system of knotwork cords used to track inventory and record credit contracts among Caravans.

The origin of *Onkakaska* as currency is nebulous. Some claim that the tradition began in the Naval Caravels, where knotwork is a commonplace skill, and was carried into The Dust as the empire expanded inwards on the continent. Others claim it almost certainly moved out of the [Ni'Anman](#), who have their own strong decorative knotwork, and was Trued when the practice was assimilated by the Caravans who traded with and recruited their Southern neighbors.¹ Others claim it was always a part of the desert, as a variation of the artisan cloth traditions already present in Ni'kashiga culture, and rose to prominence as a fiscal artform during the expansion.

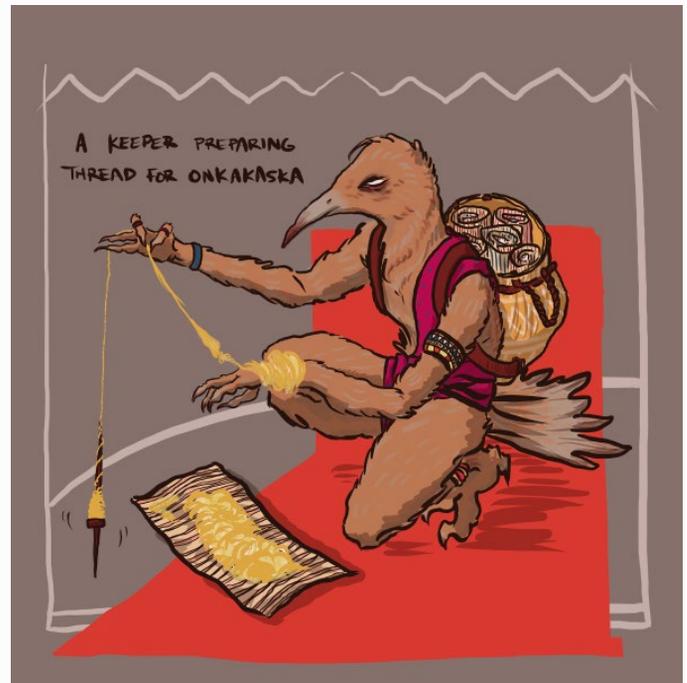
Regardless of the origins, the practice of *Onkakaska* is an artform that remains in common practice among the migratory Caravans. Far sturdier than bushfruit papers, far lighter than metal coinage, and far more practical than actual inventory, *Onkakaska* is the dominant form of inventory and credit records for these far-ranging communities.

Onkakaska, that? The wise merchant knows that success is a twisted line, that you wind again and again to the same places, that the lines you cast to these people are the ones that will hold you fast when the dust would have you fly away. This is why we honor the knot in this way: because it holds us fast to the places and people that matter.

MANUFACTURING PROCESS

The raw elements of *Onkakaska* are simple: twisted fibers, typically spun and waxed. Keepers of *Onkakaska* usually travel with premade threads as anticipated for the journey, and several wads of roving with which to make new threads as needed.

Onkakaska are notoriously challenging to newcomers, and their care, adjustment, and reading are entrusted to elder members of the Caravans. These highly-trained specialists record not only the financial details of a journey—inventory accounting, credits and debits, and payments—but use the knots as a method of detailing any potentially crucial information that could be relevant to the trip, such as miles traveled, aspects of weather, and numerical accounts of interactions. The reading of an *Onkakaska* lies not only in the visual details, but in the tactile reading and in the finer details of construction.



¹ For the Ni'kashiga, all major aspects of acceptable life are "Trued" to the Directional Hex: given symbolic associations and spiritual significance through the act of being narratively connected to a compass point. The practice of Truing serves an educational purpose, by ritualizing key information and behaviors, and, as a social guide, reveals a rich depth of interwoven information that informs individual principles of interaction.

ELEMENTS OF ONKAKASKA

Onkakaska contain a primary rope, which tends to be thicker (in order to bear the weight of the secondary rope) and shorter in length, typically designed to eventually encircle and connect around the shoulders of the knotkeeper, who may wear the Onkakaska during important trading negotiations.

Onkakaska record the entirety of a trade cycle. A Caravan typically has its own primary Onkakaska—with a new one made for each new migratory route cycle—while a settlement or trade ground will have their own, documenting the past *a'hu*, or Ni'kashiga year, of contractual agreements and financial records.

Secondary ropes, better known as *Thon'pa* or *Thon'kakaska*, branch out from the primary rope, each noting a particular interaction or financial record based on the color of the string used, the structure of the knots, and the direction in which they are tied. Two copies are made: one for the Caravan and one for the trade ground.

The type of fibers used to spin a *Thon'pa* typically encode potentially significant aspects of the general interaction (weather, conditions, miles traveled, etc), and the color of thread used generally identifies any significant parameters to the agreement: as a record, as a debt to be repaid, as a contractual agreement for futures and credits, and any other modifiers to the normal record of exchange. Particularly complex records may be thicker than standard *Thon'pa*, or branch off into supplemental tertiary threads as required or as the original contract is modified over time.

Though the types of knots are a tactile language all their own, each with a unique name, the general term

for Onkakaska knots is *Aska*, sometimes referred to as *Aska'kakaska*. As a form of binary, the placement and type of knot (or the addition of supplemental knotwork) encodes both the quantity of product transacted and identifies the product itself.

The end of a financial record is defined by the inclusions of *Ince'*, or *Ince'kakaska*. As "marker" tabs—carved beads made from wood, stone, metals, or even sturdy ceramics—they are affixed to the bottom of the secondary rope, with the loose ends sealed.

In addition to adding minor weight to help straighten the secondary rope for the ease of reading, these markers note the end of the negotiation and help create a visual timeline of trade grounds, which each have their own distinctive markers. The *Ince'* is provided by the trade grounds and caravan, with each receiving the *Thon'pa* "closed" with the other's *Ince'*, and the marker identifies the other party with which the contract is held as well as where the agreement was transacted.

SOCIAL SIGNIFICANCE

The Onkakaska is especially significant among the Caravans, where it is used as a form of financial record and credit/debit currency.

As desert currency, Onkakaska relies not only on physical inventory and trade agreements, but on the social currency of elaborate interdependence and trust relationships that wilderness survival thrives on. The rope tracks the import of goods and products by the Caravans, as well as the exports of settlements who bring local goods and empowerments to these trade grounds. Onkakaska is largely employed as a system of credit and debit for products of necessity: water and provisions. Therefore, should the contract



of an Onkakaska be broken, the consequences are dire: if one or both parties do not perish due to a lack of necessities in these harsh environments, they would soon suffer long-term consequences as either trade grounds or Caravans would refuse future trade invitations, effectively exiling the offenders from their supply lines.

Though they travel with the Caravans, makers of Onkakaska ultimately belong to and report to Flock Khokhatho. In this way, there is less chance of a particular knotkeeper being swayed unfairly into deceitfulness in favor of the Caravans, and helps to preserve the trust within the trade negotiations.

USE IN CONTEMPORARY TIMES

As the empire expands, the concept of the Caravan route has shifted: no longer bound to primarily [Ochi O'hka](#), trade routes cross the majority of the Inbound Lands. As the Greater Inbound Lands² became unified under the Ni'kashiga, movement away from barter systems into standardization of [Bthoga](#) paper currency and [Manzeska](#) coinage have replaced much of the need for Onkakaska. This being said, it is still the favored financial record of choice among Caravans when noting major inventory transactions and credit/debit, for its sturdiness and effectiveness as a tactile language currency.³

Read about Onkakaska and The Inbound Lands by M Kelley on [World Anvil](#).

RUKTA

*By Ademal
Art by Ademal*

Rukta is the common currency of Ethnis, at least conceptually. While most locations have a local currency to help offset economic fluctuations of the larger universe, all units are converted to the rukta standard. Anyone can access their accounts through their Looking Glass devices and display them with hologram projections.

Our society might be a post-capitalist one, but not even we can escape the necessity of some sort of currency to represent the flow of goods and services. Makes you wonder if we really are post-capitalist, or if we've just engaged it on a new and more abstract scale, huh?

— Salu Vanim, economist

HISTORY

An Invisible Demand

One of the lesser-known crises of the Expansion Era came as the Banners expanded towards a critical mass of worlds. The extant currency systems, holdovers from late-stage capitalism, couldn't sustain discrete economies within a larger whole. Each time a new world was made, money flowed into that world to build an economy, but very little returned. Nobody wanted to invest in settlement worlds as a result and investors preferred instead to focus on the short-term gains of harvesting resource-rich worlds.

² *Ochi O'hka: The central region state of The Inbound Lands, known for its arid high desert.*

³ *Artifacts referencing Onkakaska include:*

- *The Archeological Association (Modular Art Pod), 2019*

Influence for Onkakaska includes:

- *We thought the Incas couldn't write. These knots change everything.*, by David Cossins, for the *New Scientist*
- *Khipu Database Project*, by Dr. Gary Urton and Carrie Brezine
- *In Praise of the Humble Knot*, by Jody Rosen, for the *New York Times*
- *personal study and material made during The Science of Fiber course, taught by LoMaNa (2019, Nashville, TN, USA)*

Of course they could have gone the route of resources first and settlement later, but the majority of worlds demanded a long term investment, and with the economic infrastructure being what it was, projections were that it would only take a few more years for the economic viability of expansion to fall to a rate of one-per-decade. Or less. In the face of the outward landrush and inward resource crises, this was unacceptable.

Something had to change.

— Salu Vanim, economist

Fulfilling the Need

An Aen living within the Jupiter Syndicate found the solution. The economist Rukta Estau tor Mharys adapted the concepts of Fundamental Meritism—the prevailing socioeconomic model based on merit instead of commerce—and devised a series of formulae to calculate the merit of a planet and determine its exchange rate into Hub Credits. This enabled planetary governments to establish their own economic models and traditions apart from the Banners while still allowing trade with the Banners

and softened the economic blow of moving to new worlds.

The Jupiter Syndicate adopted Rukta’s model first, but the positive effect on the economy was so great that, like with The Archive and Fundamental Meritism, the rest of Ethnis quickly began to adopt it. In Sazashi and scientific tradition, Rukta’s equations were named for him, as was the official currency when the Hub abandoned the HubCredit in favor of the rukta.

Saving Grace

Rukta's importance fell during the Melancholic Lacuna, when the WayHall mysteriously closed, fracturing the [Hub](#) and isolating the Outer Worlds. While the rukta stayed in use as a standard, the full strength of it went underappreciated, at least until the Lacuna came to an end and the Reclamation Era began.

Once more the rukta saved the day, even more so than before. During the Lacuna, many of the worlds which had been settled during the Expansion had grown to have their own economies. If it wasn't for the rukta quickly bridging the economies, we might not have been able to expand back out to them so quickly, and to open up immigration in both directions.

— Salu Vanim, economist

CULTURAL ASPECTS

Transaction Handshake

Larger transactions tend to respect the tradition of a handshake. To reinforce this, it is a general standard for these large transactions to only transfer rukta between accounts when the wrist projectors of someone's Looking Glass is close to another's—which happens during the handshake.

Black Mark

Depending on the nature of the transaction, anyone who makes a deal may have the right to view the other's outstanding debts. This appears as a greyscale rukta of size, shade, and shape equivalent to their debt.

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I never do business with someone bearing even a single black sun, personally. I don't care if they made a good investment or took out an important loan. I care about what they can owe me—and if they already owe others so much then how are they going to pay me?

— *A snide merchant*



Calculating Rukta

The rukta exchange rate for a world is based on its merit as outlined by the tenants of Fundamental Meritism. Rather than being a measure of just active economic power, it is a measure of economic potential and accounts for the averages, highs, and lows of: tech level, education level, population count, Monolith prevalence, Meta density, potable water, fertile land, farmed land, exports, imports, cultural contribution, terraformation completion, planet size, and more. Because the rukta measures potential, it also takes into account metrics of where the planet is going, not just where it is.

You want an idea of how insane the calculation is? Rukta became Transcendent while writing it. That's right, creating it was such a mental exercise that he became divine.

I opened the calculation once, unfurled it all out onto a hologrammic wall 10 meters tall and almost half again as wide. I read it and cried. It was beautiful, and to this day, I am still trying to comprehend it.

— *Esko Ak'khai, a mathematician*

Worlds with a low merit bait investors into investing to improve the world's merit. Investors then get a return-on-investment in the backwards exchange, causing an eventual theoretical equilibrium in value to the Hub. It is said that any world which reaches that equilibrium will be counted as a Hubworld, but so far, only Perduro and Nuage D' Argent have managed as much.

A TRANSACTION

"Forty-seven-thousand ruks," the merchant, Vodari, said, crossing his arms and rolling back onto his heels.

Riss' brow fell as he threw his hands up and made a sound between a growl and a sigh. "Lissen, mate, you've been 'avin a go at me since I got here. You think I dunno the goin' rates of a chopped ship? Keep askin' market price for meissner couplins and I'll take my deal across town to Yowkun's. Thirty five, take it or leave it." He splayed his hands, bringing life to a constellation of orange rukta gems.

Vodari scoffed. "Yowkun can't give you the quality that I—"

"Quality!?" Riss bellowed, incredulous. "Mate, nobody is comin' to you for quality. You sell shitheap parts and you know it. Or would you rather I advertise that you sabotage most of your parts and strip out the good bits? Everybody knows you do it, it's just cheaper to fix your parts than buy market. But if you're gonna charge market, I'm gonna go buy good parts.

Vodari grumbled and threw out his hand. "Fine. You have a deal," he said.

Grinning, Riss clasped his hand. The gems shrank as they twisted around his wrist and splashed into Vodari's hologram projector. "Pleasure doin' business witcha."

"Fuck you, Riss."

"Not this time, Voda!"

Read about rukta and the world of Ethnis on [World Anvil](#). 🌐

EXCLUSIVE INTERVIEW: LIANNESS

INTERVIEW 
ECONOMICS 

*Interviewed by Adam Bassett
Art by Inky*

I spoke with Lianness, a university professor of economics, to get her perspective on how fictional stories address the subject of her studies. We discuss the role of economics in historical events, such as the Black Death and World Wars, as well as the flawed economy in the wizarding world of Harry Potter. Here's what Lianness had to say:

I'm an economics professor with a specialty in economic history, both researching and teaching the subject. Economic history is *not* the history of economic thought (that's a different field!). It's using history to understand economics, and studying the economics of historical scenarios. That gives me a somewhat unique perspective on how contexts—technology, government, etc.—influence economic systems.

I'm also a lifelong reader of fantasy and science fiction, a longtime *Dungeons & Dragons* (D&D) player, and a Dungeon Master.

What got you started in the field of economics?

I started out interested in math and political science. I loved the elegance of math, and I was fascinated by politics—particularly public policy. I took my first econ class in college because my political science advisor suggested it.

After college, I went to Washington to work in economic policy, which was an incredible experience. It was a really neat first job because I was working for a pretty small organization and got a fairly wide viewpoint on things. But, it was a job I took with the clear expectation that I'd leave after a few years to go back to school.

That forced me to pay attention to what parts of the work I really liked and be intentional about what direction I wanted to go. I'd initially thought about going into law, but I saw enough of the legal side of policy-making—legislative language, etc.—to know that wasn't where my heart was. At



the same time, I'd realized that theoretical math was too abstract for me, that I wanted to work on stuff where I could see the applications. So, econ seemed like a great fit. It was the analytical part of the policy work I'd enjoyed most, after all.

Looking back, I had barely any idea what I was getting into when I applied for grad school. I hadn't been an econ major, even. But it turned out to suit me really well, and here I am. In retrospect, it seems like an obvious career choice for me. But I never saw it coming! If you told me in college I was going to end up a professor—in any subject—I would have been surprised. I will note that my friends were less surprised than I was. Life is like that.

Thanks, Lianness. Now, I'd like to get into the big topic of economics in speculative fiction. What are some works of fiction that display quality examples of economics within their worlds?

As a rule, I usually try not to think too hard about economics' representation in speculative fiction, since it'd be so easy to ruin something I otherwise love because it's done badly. But at the same time, I admit I can't help noticing things, so I do have thoughts.

IN GENERAL, I'D SAY THINGS TEND TO WORK BEST WHEN AUTHORS TAKE THEIR INSPIRATION FROM A CLEAR, COHERENT TIME AND PLACE.

The details tend to fit together coherently without egregious errors. One good example of this would be Megan Whalen Turner's *Attolia* books. They're lovely, but the world also feels really coherent, including the economics, because it's loosely based on the fringes of the late Byzantine world. That's a case where it's relatively easy, because her world has relatively small amounts of magic, so it's pretty close to historical fiction.

Tamora Pierce delved into economics some with her *Provost's Dog* trilogy, with both a counterfeiting/coinage plot and then the whole plot around slavery later on. That's a harder scenario because Tortall has more magic, but it worked pretty well.

My favorite example of a fantasy world where the economy is far from obvious, but where I think it's largely right, is Garth Nix's *Old Kingdom*. You have essentially a late medieval or early Renaissance society with magic, as portrayed in *Clariel*, with powerful guilds and relatively powerful cities unified under a relatively weak monarch. It's easy to see the historical parallels for that era of his world. But then you have this cataclysm, an interregnum where the country basically falls apart as it is slowly infested with the undead, and he's clearly thought through the demographic effects of this cataclysm. The economics are all wrapped up in the rest of the worldbuilding, tied to how magic works and how the dead behave and what stops them. You get abandoned sectors of the capital city, with the system of aqueducts acting as a buffer. You get this huge shift from farming to fishing as rural areas become too unsafe and are overrun. And you get

a lot more poverty than there was before, yet also less inequality. The big cataclysms of the world aren't just narrative flavor; they affect how literally everyone in the world lives their lives, including things like banking and standards of living.

Now, I have no idea whether any of those authors actually bothered to learn economics, or if they were just good at choosing historical settings and thinking through implications as they created their worlds. But they get enough right for it to feel coherent, and the choices characters make have economic ramifications that make sense.

What works of fiction aren't succeeding in regards to economic representation?

Harry Potter's economics make no sense at all. I love the books. I have loved them since the late 90s, but the economics... just no. First of all, the prices of goods need to be tied to the cost of producing them and/or to the value they provide. Otherwise they just don't make sense. If magic is as powerful as it is in JK Rowling's *Harry Potter* series, relative prices should be radically different from what they are. Part of that is that we just don't see enough of the limits of magic.

Do you mean different prices as in lower prices?

Not necessarily lower! For example, how long does a transfiguration last? How complete are they? Would anyone ever make furniture if you can just transform a rock into a couch and have it be just as sufficient? Why would you ever use high-quality materials for anything if you could get cheap materials and then transform them with a spell?

Prices are determined by: the cost of the inputs (raw materials), the cost of the labor used to make them (with premiums for specialized skills), and the costs of moving goods around. In *Harry Potter*, magic seems to virtually eliminate transportation costs, so even if you can't move things by magic, being able to shrink things and reduce their weight is going to radically reduce transportation costs.

Things that everyone/anyone can do should be cheap—e.g. meals should cost less if any competent witch or wizard can use magic to cook effectively.

Prices are also determined by scarcity, with prices being higher due to limited quantities. In a market economy, people will produce only so long as production is profitable. Honestly, it's a miracle that the wizarding economy isn't 90% home production (people making things for themselves) with skilled wizards enjoying far higher standards of living than unskilled wizards...which would in turn make schooling extremely intense (which Hogwarts doesn't seem to be).

The other thing that drives me nuts is how relatively inexpensive it is to buy a wand. Wands are incredibly valuable to wizards in *Harry Potter*, since they greatly enhance power, and most witches and wizards can't do magic without one. They're also expensive to produce: given that we're to understand that wand-making is an incredibly rare and specialized skill, and they use incredibly rare, specialized magical materials. All of those things should make wands very expensive! I'm talking the equivalent of thousands of dollars. But they aren't, because they're presented as a school supply? Again, it makes no economic sense.

I think one of my takeaway messages is that it's hard to get the economics right if you don't have really clear thinking on how exactly magic and/or technology work in your world, and especially if you don't have clear limits on what can and can't be accomplished with magic or technology. *Harry Potter* is, in some ways, very sloppy about how magic works, especially on the limits of magic. That makes it hard to even start working out how economics ought to work, though it is clear that they're pretty incoherent.

You get similar problems with economics in D&D for similar reasons. D&D is ultimately a game, so the entire magic system is based on rationing magic depending on how useful it is in combat, rather than the power of the effect causing the magic. It works well as a game, but you don't want to look too hard at the economics because the magic system really isn't meant to be coherent for that kind of thing—it's optimized for scaling the difficulty of magical combat, not for being a coherent system of magical power.

So if I'm writing a book and discover the issues you're bringing up are present in my work, how might I go about fixing things? Should I start by specifying limitations on magic/tech in my story? Or should I begin somewhere else?

Specifying the limits of magic/tech in your world is a good place to start. Then it becomes mostly a question of compatibility: is the economic system described feasible in the framework of magic and technology you've dreamed up?

I think this might be a good moment to talk about money and how it works. Everyone uses it, and it will come up in virtually any world anyone builds, but it's easy to get wrong if people don't understand it.

Sure.

Any modern economics textbook will tell you that money has to fulfill three things: it has to be a unit of account, a unit of exchange, and a store of value.

Unit of account means that everyone can keep their books in whatever currency, and have them be coherent. Though, the question of whether you have bookkeeping and account books is actually open if you're talking a low-technology, low-literacy world. Accounting and numeracy are usually going to come after basic literacy.

The second one, unit of exchange, means that one unit of currency—whether a dollar bill or a silver coin—is going to basically be equivalent to any other unit. I say “basically” because historically, you had issues with coin clipping, where people would shave or clip little bits of metal off the edges of coins. Merchants and others who did lots of money transactions would then use scales to weigh coins, and other people were vulnerable to being taken advantage of.

The last one, though, is in some ways the most complicated. A store of value means that money needs to retain value over time, hopefully in a stable way. When I teach this to college students, I usually ask them to think about why whiskey has been used as a substitute for currency, but not beer. The answer is that whiskey doesn't go bad after being opened, while beer does. A barrel of whiskey that

was opened two days ago has a lot more value than a barrel of beer opened two days ago. But even that really ignores the deeper questions about what gives currency value.



Historically, before the invention of the steam press (which made counterfeiting much, much more difficult because coins could be produced much more exactly), the value of money had to be intrinsic to the money itself. So the value of metal coinage was tied to the inherent value of the metal contained in the coin. You get some crazy stories with that. In Sweden, for instance, the Crown owned copper mines and for a time insisted on copper coinage to make the most out of their monopoly. But copper is less valuable than silver or gold, so you ended up with these giant coins, literally larger than dinner plates.

Historical currencies haven't always been metals, either. Parts of Latin America used dried coffee beans. Colonial Virginia was very successful using paper notes backed by (redeemable for) tobacco. Commodity currency—including metals—doesn't work very well in a modern economy, though it has huge advantages in a pre-modern economy with low economic growth.

The thing is, to avoid deflation—which has some big negative consequences, as bad in their own way as hyperinflation—the money supply has to grow as fast as total economic activity, including population growth. In a pre-modern economy, economic growth is very slow, so this isn't a huge issue. There aren't many alternatives in a pre-modern society,

either. But, once you hit industrial rates of economic growth—I'm going to say even 1% gross domestic product (GDP) growth per year, which is low for the modern world but high enough with compounding, and higher than you saw anywhere on a sustained basis in the pre-modern world—the limits on money supply become problematic, because you're going to trigger potentially-destabilizing deflation in response to growth. These days, we use paper money, and it's not backed by gold or any other commodity. If you have the technology to produce bills that are difficult to counterfeit, it's backing for money that matters, not the money itself. Backing is what the paper notes can legally be redeemed for at the central bank or treasury.

However, it's a mistake to think that paper money isn't a store of value. If you look at a dollar bill, you'll see that it says something along the lines of "This note is legal tender for all debts public and private." That means a few things. Historically, public and private acceptance of currency could be separate, so I'll address them separately.

Legal tender for all public debts is a fancy way of saying that you can use currency to pay your taxes. In fact, in the modern United States you *must* pay your taxes in US dollars. So paper money has value for you because you can use it to pay taxes now or in the future—and also because everyone else can use it to pay taxes now or in the future, so everyone knows that it has value for everyone else because of that.

Private acceptance means that people are legally obligated to accept a currency as payment.

Individuals can choose to accept other forms of payment; most travelers have probably paid for something in American dollars overseas, rather than using local currencies, because someone was willing to take their dollars. You've probably paid friends to help you move with pizza and beer. Heck, I once paid a friend for helping me move with half a bottle of tequila, and both of us thought it was a great deal. But if you're in the US and you're selling something, you are legally required to accept payment in dollars. That gives dollars value. So, in a modern economy, the value of the money is going to rest on the stability of the government.

So in a modern, stable economy, money works as intended even if not backed up against anything. Just to play devil's advocate, what might we see in an unstable modern economy?

Unstable money is going to be a symptom of an unstable government. If the government tries to finance too much of its activities via printing more money (what's called seigniorage) rather than taxes (or bond issues where it pays market interest rates on debt), you're going to get hyperinflation. That causes huge problems and is eventually destabilizing. It's part of what's been happening in Venezuela over the last couple of years, and what happened in Zimbabwe around the start of the 21st century. It's happened in rich countries, too.

Hyperinflation created massive problems in 1920s Germany and France. We all know how that ended. Hyperinflation generally occurs when governments are incredibly irresponsible, and often in response to other major destabilizing factors. In post-WWI Europe, you had two war-torn countries that had suffered massive losses of life and massive economic disruptions due to the war, and then you added in crippling reparations payments from the Treaty of Versailles. France's economic plans relied on getting those reparations payments, and the Germans basically couldn't pay them. So you ended up with massive uncertainty over whether and how much future reparations would be paid, and it was like an economic wrecking ball. You also saw hyperinflation post-WWII. I've recently been reading a book about military government of Germany and Japan post-WWII, and inflation was a massive problem in both countries immediately after surrender.

The thing is, modern currency instability doesn't happen in a vacuum. We don't just wake up one day and the dollar has no value. It happens because there are larger political problems, and because government is failing. I think that's an important takeaway for worldbuilders. Stable economics and stable government go hand in hand. It's hard to maintain a stable economy without a stable government, and it's hard to maintain a stable government without a stable economy. Incidentally, this is one reason why so many revolutions fail. People tear down a system of government, but if they can't get the economy to function under the

new government then they're doomed. Similarly, governments fall if they fail economically. Post-WWI German democracy is a great example of that, but far from the only example.

When you're building a world and thinking about how money works, the important questions are (1) Do magic and technology make it possible to mostly prevent counterfeiting? If yes, you can have more sophisticated currencies. If the answer is no, then you can't. (2) How fast is technology and society developing? If it's fast, you probably need a more modern form of money. In fact, history would indicate that if you have fast economic growth without modern currency, you're going to have fairly regular financial crises as the economy "corrects" money imbalances pretty dramatically. (3) Is the state/government stable?

That third question has some interesting implications for science fiction, if we think of it as encompassing the reach of the state. If you have trade between planes of existence, you have to find some kind of currency that has value to people on



both ends of the trade. If transport/travel is really expensive/difficult/limited, currency is going to be difficult, and you might end up with bartering more than monetary trade between these distant groups. If space travel is common and frequent, money will work much more normally. The value of money always becomes chancy on the frontier, because (a) money is very scarce, or/and (b) it may not be easily usable.

We've already somewhat touched on the idea that major events such as revolutions can affect an economy. I'd like to explore this a bit more. What kinds of major events do you see not getting the attention they require with regard to economics?

I think it's more that there are consequences people don't recognize. Take plagues, or wars with very high casualty rates. People don't think about it, but if you're lucky enough not to die, then they really benefit workers. Labor becomes more scarce, so workers get paid more. To be clear, for wars, this applies to scenarios where the war was fought elsewhere and the country wasn't physically destroyed. The physical destruction of farms/workshops/etc. is going to have the opposite effect and depress wages.

One of the things that blew my mind when I started learning economic history was that many economic historians credit the Black Death with paving the way for the industrial revolution (in a very slow process). So many people died that workers gained a lot more bargaining power, and the feudal system started breaking down. There were fewer people who needed feeding, so you didn't need to clear new farmland for a while, and crop rotations including letting fields lie fallow

MANY ECONOMIC HISTORIANS CREDIT THE BLACK DEATH WITH PAVING THE WAY FOR THE INDUSTRIAL REVOLUTION

became more common, which in turn made farms more productive because the soil was gaining more nitrogen content. That let more people move to cities and take jobs outside of agriculture...and the rest is history. Obviously it was pretty bad luck to be born in Europe right before the Black Death, because your odds of dying a painful death and living a very short life were incredibly high. But the benefits to survivors were huge.

PEOPLE REALLY UNTERESTIMATE HOW MUCH SOCIAL AND POLITICAL REALIGNMENT IS DRIVEN BY BOTH DEMOGRAPHICS AND TECHNOLOGY, RATHER THAN INDIVIDUALS.

We love the stories of individuals, because telling stories is an intrinsic part of being human. But usually there are underlying phenomena that affect the course of events. I'm sure there were plenty of farmers who didn't love living under feudalism before the Black Death. They weren't successful fighting it. Those who survived it, and the next generations, were more successful, because they had more power to extract concessions.

Or for a totally different example, take slavery in the U.S. The north shouldn't have any moral superiority about not having had slavery. The north didn't have land suitable for plantations. The economic gains from exploiting other humans in that way—and it was incredibly exploitative—simply didn't exist in the north. Northern whites weren't intrinsically better people than their southern counterparts (indeed, northern textile

wealth was supported by slaves' production of cotton), they just didn't have the same economic dynamics.

Another key takeaway: there are always economic winners from war, but it's rare for the economic winners to be involved in the fighting.

Now that we've discussed the ramifications of events like plagues and wars, do you have any examples which represent this particularly well or poorly?

I think a lot of stories tend to focus on the time-during the actual experiences of war or famine or plague. Again, I think the writers who portray these events best are often those who follow history closely. For instance, I love Connie Willis's books. They're also steeped in history. It's not an accident that she captures the dynamics so well.

One of my favorite examples would be Ursula K. LeGuin's *Annals of the Western Shore* trilogy. The books are set in a fantasy world, but they're strongly influenced by ancient history, particularly ancient city states around the Mediterranean. She does an incredible job handling war, siege, and occupation, all of which affects the economy.

The thing that I haven't seen a lot of but that I think there's a lot of room to explore is the aftermath. And not the immediate aftermath, either. In modern societies we often rebuild quickly after a cataclysm. But historically, that wasn't the case.

THERE ARE ALWAYS ECONOMIC WINNERS FROM WAR, BUT IT'S RARE FOR THE ECONOMIC WINNERS TO BE INVOLVED IN THE FIGHTING.

If I were to try to explore the aftermath, what would you suggest I consider first?

First, what happened to demographics? What group or groups were hit hardest?

Second, what were the relative effects on physical capital (not wealth, but productive capacity, skills, knowledge, machinery, etc.) vs. people? Plagues are fascinating because they tend to leave physical capital relatively intact. Wars vary a lot more.

Economics teaches us that production comes from the combination of labor (people), their skills, and capital (machines, buildings, etc). It's more than additive. There are actual mathematical properties one could explore, things I cover in class when I teach this stuff. But the thing to know is that if people are hit harder than capital, that's going to increase wages and the relative power of workers. Conversely, if capital is hit harder—in an extreme case, if a city was fully evacuated and then bombed to rubble—that's going to decrease wages and decrease the power of workers.

Somewhat ironically, inequality is a problem that arises only where you have wealth, in general. You can't have much inequality if everyone's dirt poor, because if people are too poor in an absolute sense they starve and die. So places that are rich and have more natural resources are usually going to be more unequal, in general. But cataclysms can influence that. Social realignments are likely to follow cataclysms.

Also, big technology changes can also be destabilizing, with effects similar to cataclysms, even if the technology is itself a good thing. For example, it's not that hard to connect the Protestant Reformation (and all the wars it entailed) with the printing press. If you radically change access to information, you're going to get some destabilizing effects on society, often in ways that aren't obvious or easy to predict.

I guess my biggest takeaway is that aftermath can be slow and lasting, and that social upheavals very often follow cataclysms or huge technological developments. There's interesting stuff there for writers to work with, interesting stories to tell.

Maybe less dramatic than the cataclysms themselves, but plenty of potential for a skilled writer to work with.

I'm curious if you have a favorite currency that's been used in history or fiction? Additionally, what's the most creative type of currency that you've seen used?

Oh goodness. I feel like all the best stories are really grim, unfortunately. Aesthetically, I got a real kick out of some of the "famine currency" issued by localities in Belgium during WWI. The government had removed its store of banknotes, printing plates, etc. to London for safekeeping while the country was occupied, and there was a major currency shortage. The occupying German government was not helpful about issuing currency for locals to use, so local governments—cities and towns—had to step up. For trade, this was not an ideal situation, since each note could only be used in the city where it was issued.

I'm also really fond of "playing card money," which was issued at various points in history, I want to say during the French Revolution and also in early Canada. Paper was really scarce, and decks of cards were what they had.

The most absurd currency I've heard of was corn in colonial New England. A massive shortage of coins in colonial North America left colonists desperate, especially since England made it illegal for the colonists to mint their own coins (though they kept flouting that one). As I mentioned earlier, Virginia (and Maryland) actually did quite well with paper currency backed by tobacco. Tobacco was dried and stored centrally, and graded on quality for sales, so you'd have notes redeemable for a specified amount of dried tobacco of a certain quality, and they could sell the tobacco in Europe or elsewhere in North America for lots of money. It was a traded commodity.

Corn ... well, it's easy to grow lots of places, not really traded much, and back then, it wasn't graded by quality. So they developed this crazy system where quality corn got eaten and bad corn was used for currency. Then there were political shenanigans where the farmers basically lobbied to set the official price of corn way above its actual value.

This was a period when currency had legal public acceptance—meaning the government had to accept it at par value—but no private acceptance. It essentially crippled the colonial government, because people could pay taxes with goods (corn) that was worth much, much less than its face value. It was not a chapter of colonial history that inspires confidence.

With your interest in speculative fiction, and this understanding of history, have you ever created any stories/worlds? If so, could you tell us about it?

You know, I've thought about it quite a bit, but I haven't fully created any. I just don't have the time. Someday, I'd like to make my own D&D campaign setting (and I do have some scattered notes, and I will say a bit about it), but it's just so much work to do it well. I mostly host games set in the Forgotten Realms, and just fleshing out details there is plenty of work. I'm also partway through writing an epic length *Harry Potter* fan fiction, in which I have tried to make magic more coherent without fundamentally changing it, but I've intentionally stayed away from economic questions there. I'd like to write my own original fiction at some point, but I'm learning so much about writing and structuring a story from fan fic, and again the time it takes to do it well is incredible.

In terms of the D&D setting I've begun working on, I have this idea of waves of demographic displacement that have rippled out to the frontier of the settled world. The players would start out addressing a local orc problem, and when they get to the bottom of that, they find that the orcs were pushed out of their territory by drow. And then they investigate the drow problem, etc. I like the idea that problems are interconnected, and that the most visible problem you see—the tip of your iceberg—is not necessarily the root cause. But I need to work more on the history of the settled countries, their politics, etc. I tend to think about this stuff as sort of a backwards induction process, with the question of what will make a good story at the root.

At the end of the day, economics matters because it influences the fabric of people's lives.

It's not about the money. Money is a tool, like any other.

Any closing thoughts before we wrap this up?

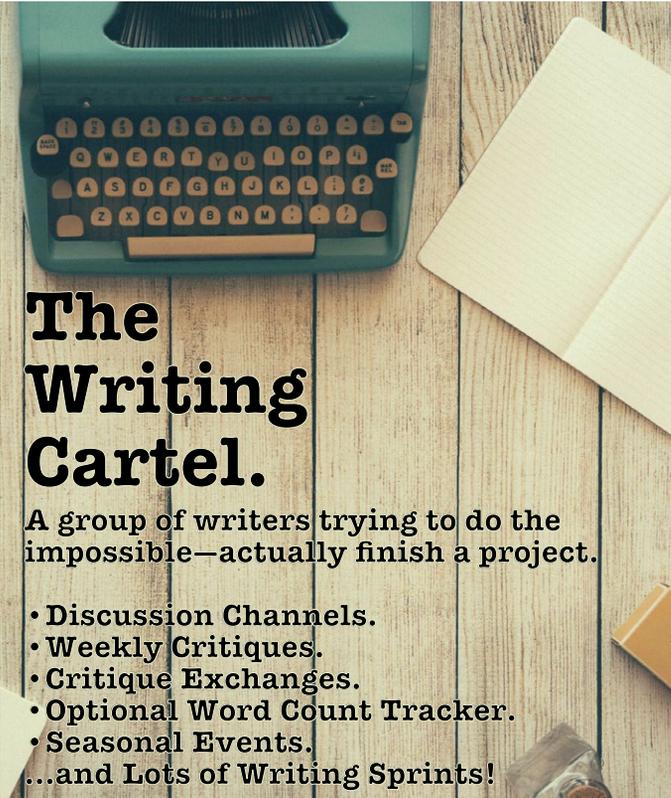
Economics is a powerful tool, both for understanding the "real" world and for building a coherent fictional world. A common misperception is that people think economics is only about money and finance, but it's really so much more.

MY FAVOURITE DEFINITION OF ECONOMICS IS "THE STUDY OF THE INTERACTIONS BETWEEN INDIVIDUALS AND INSTITUTIONS IN AN ENVIRONMENT OF SCARCITY."

That's pretty broad, and covers a lot of things other than money and finance. I think sometimes a lot of people don't study economics because they don't think it would interest them, and then it turns out that economics is actually super relevant to their interests. 🪐

This interview was edited for Worldbuilding Magazine.

Special thanks to Lianness for taking the time to speak with us!



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FEUDAL ECONOMICS

HISTORY 

POLITICS 

WRITING 

by B.K. Bass

Art from William R. Shepherd via *The Historical Atlas*

Often when we think of medieval history and medieval fantasy, the noble knight in shining armor is one of the central concepts that come to mind. Along with this imagery comes castles, people saying “m’lord,” and those same knights kneeling at the feet of their sovereign. To me, one of the most memorable aspects of George R.R. Martin’s *A Song of Ice and Fire* series is when a greater lord “calls the banners” or “summons their bannermen” to battle.

But, why do their bannermen come? Why are these knights and lords so beholden to their lords and sovereigns, and why do common men set aside the plow and take up the spear when called to do so?

All of this, and more, is part of a grander socio-economic system that dominated western Europe during the Middle Ages: feudalism.

WHAT IS FEUDALISM?

Feudalism was a system by which a sovereign divided portions of his land among his vassals in exchange for certain services, quite often those of military value. These lords might then further divide the land among lesser lords under similar agreements, who may again divide the land. This created a hierarchy among European nobility and a system of titles representing one’s position among this hierarchy. A king might grant large swaths of land to dukes, who then would divide these holdings among a number of earls or counts, who would then divide this among a number of barons. Beyond this point, a baron’s holdings might be split and administered by a number of untitled lords, knights, mayors, sherriffs, and clergymen. Finally, the common people were allowed to live upon and work the land in exchange for the lord receiving a share of their produce and military service when called upon.

Just from this general description, we have enough information to start shaping our own cultures

around this system. We don’t know much about how things work beyond where we started, but we can see that these knights and “bannermen” have been granted rights to land by greater lords. In a more mundane sense, we can consider taking the map of our realm and dividing it into smaller and smaller chunks. The king can’t oversee the entire realm himself, after all!

As an example of how this works in our world-building, let’s organize our own kingdom. We will call it the Kingdom of Reginland. Let’s say the kingdom has three primary regions that we will use to create duchies, each controlled by a duke or marquis: a coastal area called the Duchy of Inswich, a central plains called the Duchy of Garn, and a mountainous border region called the Volksgaard March (often, when a duchy lies on a border and must focus more on military defense, it will sometimes be called a “march,” an area controlled by a marquis instead of a duke). Now let’s break down Inswich into six counties, each controlled by a count. These will still be too large for one man to personally manage, so each county can be divided into baronies, perhaps twelve or so, each controlled by a baron. Now, at this point, each baron may control a single manor, but most likely, he will focus more on a hub town of some sort. The outlying manors, villages, and farmsteads will instead be overseen directly by lesser lords, sherriffs, mayors, clergymen, etc. These men will often not have noble titles, although the lords among them will likely be knights in service of the realm.

In return, the vassals are obligated to respond to that dramatic moment when messengers are sent out to gather the fighting men to the sovereign’s side. But, further than this division of land, what were the rules of feudalism?

It is argued by historians that, because European societies never set a shared code of laws regarding



feudalism, we cannot codify all the details of how it worked across the entirety of the continent. In fact, the term feudalism is a construct of seveneenth century historians.¹ Regardless, many have attempted to identify and correlate common aspects that appear throughout the historical record into a sort of general guideline. One notable definition of feudalism came from Belgian medievalist François Louis Ganshof in 1944, who said that “feudalism describes a set of reciprocal legal and military obligations among the warrior nobility revolving around the three key concepts of lords, vassals and fiefs.”² This definition sums up the basic concept of the system, and leads us to the core principle upon which it is built: land tenure.

LAND TENURE

Central to feudalism was land tenure, a “system by which land was held by tenants from lords.”³ This sounds much like what we have already discussed, but land tenure delves deeper into the economics of the period and the actual rules that lay at the core of a feudal system.

So, what is a fief? Basically, it’s a term for a parcel of land, specifically “an estate in land held in feudal law from a lord on condition of homage and service.”⁴

What does *homage* entail? This concept brings us back to the lords and vassals from Ganshof’s definition of feudalism and to the political aspects of the system. Homage is the swearing of loyalty to the lord who has granted the land. Are the terms lord and vassal mutually exclusive, then? We’ve already discussed how land granted to a lord may then be further subdivided among lesser lords, and in this

situation, one individual would be both a vassal of his sovereign and a lord to his own set of vassals.

So, we can see here that when one of Martin’s characters demands that another “bend the knee” to show their loyalty, we’re only seeing one side of the deal. Had a medieval lord gone to another and demanded such servitude without giving anything in exchange, he might have been laughed out of the keep—or worse! While establishing the relationships between our greater and lesser lords in our own worlds, we should remember that things are rarely given freely, especially loyalty. Often, there’s a *quid pro quo* involved that benefits both parties. Feudalism and land tenure, at its core, is an economy of exchanging control for loyalty and land for labor.

UNFREE TENANCY

Thus far, we have discussed primarily the relationships between lords and vassals. This relationship is considered *free tenancy*, where the services to be provided by the vassal are determined and documented in the formal arrangement with their lord. As we mentioned, this agreement often includes military service where “calling the banners” comes into play. A vassal swears to answer his lord’s call for military service and to raise a certain number of soldiers when needed. The other form of tenure is *unfree tenancy*—also known as *villainage*—where the tenant of the land might be called upon to perform any number of services for the lord without prior agreement.³ These services can range from plowing a field to marching to war, and this is where those promised soldiers mentioned before come from.

¹ Brown, Elizabeth A.R. “Feudalism.” *Encyclopedia Britannica Online*. <https://www.britannica.com/topic/feudalism>. 5 JUL, 2019. Accessed 12 AUG, 2019.

² Ganshof, François Louis; Grierson, Philip. *Feudalism*, 1st ed.: New York and London, 1952. It should also be noted that feudalism was a uniquely European concept. Many have applied the term to other cultures, most notably the “Feudal Period” of Japanese history which spanned from 1400–1600 CE, more accurately known as the Sengoku Jidai, or “Age of Warring States,” Period. This misconception stems from a Eurocentric worldview adopted by many historians. As they attempted to make sense of foreign cultures, they imposed uniquely European concepts upon them, often seeking out familiar trends while paying less attention to the unfamiliar aspects of those societies.

³ Various. “Feudal Land Tenure.” *Encyclopedia Britannica Online*. <https://www.britannica.com/topic/feudal-land-tenure>. 2 JAN, 2012. Accessed 12 AUG, 2019.

⁴ Various. “Fee.” *Merriam-Webster Dictionary Online*. <https://www.merriam-webster.com/dictionary/fee>. 4 AUG, 2019. Accessed 12 AUG, 2019.

Someone familiar with the period might see this and think of the serf, who toiled the land at the will of their lord and held little to no rights at all. It is a misconception that all peasants were serfs. In fact, they were two distinct social classes that often worked alongside one another. While a peasant might not have a right—or the wealth—to own land, he would still have certain freedoms. He may be beholden to work his lord's land in exchange for the privilege of living upon it and feeding his family, but he was not tied to the land and could freely move on to greener pastures, as it were.

Serfs, on the other hand, had very few rights. The practice of serfdom originated from the slow collapse of the Roman Empire. As the cities across the empire became economically untenable, many fled to the countryside and reverted to a more agrarian lifestyle. Imperial agents still controlled the land, and they allowed these new refugees to settle and work the land in exchange for a share of the yield. These people were known as *coloni*, and over time, sets of Roman laws regarding their status in society eventually carried on to become the basis of serfdom. As far back as the third century CE, *coloni* were not allowed to leave the land they worked, and the status became a hereditary one.

As the Roman Empire spanned most of western Europe, this practice became widespread before the eventual fall of Rome. As the empire dissolved and its former holdings established independent systems of governance, the traditions of the *coloni* survived the transition. Many serfs in the Middle Ages were descendants of Roman *coloni*.⁵ They were bonded to the land and their lord, and their “movements were constrained, their property rights were limited, and they owed rents of all sorts to their landlords.”⁶ While there are similarities, serfdom and slavery should not be confused. The key differences between the two is that the serf did possess some basic rights—such as those regarding personal safety and dignity—and that a serf was not

considered property and could not be bought or sold. Depending upon the region one studies, serfs might make up the majority of the common population. Alternatively, the serf class might include only individuals who are bound into service in exchange for some crime or to pay off a debt.⁷

This latter example might remind one of indentured servitude, a practice similar to serfdom but enacted for a contracted term of service. This was practiced in the colonial period of the seventeenth and eighteenth centuries. Indentured servitude often involved an individual voluntarily contracting to work for a specific employer for a set term, usually four to eight years. The indentured servant essentially signed over all of their rights and were not allowed to leave the employer's service until the end of the term. In return for this service, the employer provided food, shelter, and offer some sort of reciprocity, such as the repayment of outstanding debts or offering free transport to the New World.⁸

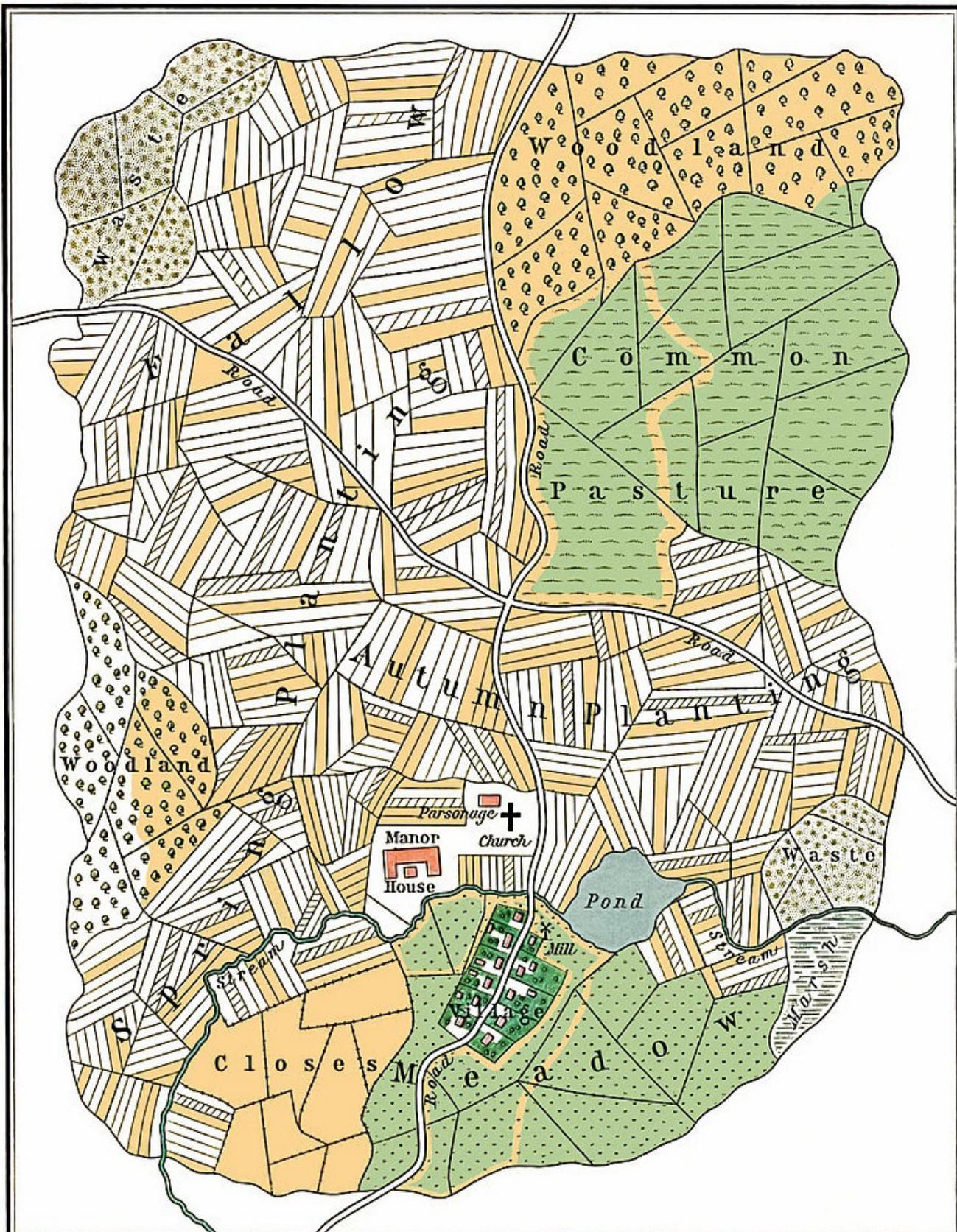
In our own worlds, we might want our peasant class to be free to move about and do what they will. This way, they can act as needed to fit the construct in which we have placed them. On the other hand, it may be interesting to examine the social and ethical dynamics where the majority of the population is bound in servitude. Of course, we could take the middle-ground. A relatively simple line to draw in the sand would be to divide skilled and unskilled labor. While those who farm the land might be serfs; the blacksmith, potter, and cobbler might be free men. On the other hand, if a lord wishes to guarantee his favorite blacksmith doesn't decide to move away, serfdom would be a way to keep this skilled labor under his control.

⁵ Rheinstrom, David. “Serfdom in Europe.” Khan Academy. <https://www.khanacademy.org/humanities/world-history/medieval-times/european-middle-ages-and-serfdom/a/serfdom-in-europe>. Accessed 12 AUG, 2019.

⁶ *Ibid.*

⁷ *Ibid.*

⁸ Kenton, Will. “Indentured Servitude.” Investopedia. <https://www.investopedia.com/terms/i/indentured-servitude.asp>. 17 AUG, 2018. Accessed 12 AUG, 2019.



- The Demesne**
- The glebe (i.e. strips in the open fields held by the parish church)**
- Later enclosures for farming and sheep-raising**

This plan of a manor is wholly conventional. It is intended to show: (1) the various features that might be found in English manors (or vills) of the mediaeval period; (2) the more important changes in the agricultural system which occurred in England from the fourteenth century onward. Many of these manorial features, of course, appeared in similar domains on the continent.

EXCHANGE OF GOODS AND SERVICES

The astute reader will have noted by now that, while we are discussing economics, we have thus far only covered the exchange of land for service. Surely though, there were thriving markets, trade ports, and coffers overflowing with coin during the Middle Ages. If the entire system was about land rights, military service, physical labor, and the production of goods, where did currency and trade come into play?

While the feudal economy was a heavily structured system with layers of control and obligation, shared resources, and authoritarian implementation, there were also aspects of a free market economy interwoven within it. This free market economy is driven by the surplus. Any goods produced beyond what the producer used, or obtained beyond what the receiver used, could be exchanged for other goods or sold for currency.

Feudalism contained many elements of capitalism, which should be familiar to anyone reading this. In contrast to being able to choose our employer and what endeavors to devote ourselves in a capitalist society, “in feudalism the direct producer has an obligation to work for a specific employer within a given sphere of production.”⁹ So while our lowly peasants might work land owned by another and have an obligation to turn over the lion’s share to their landlord, they may still produce more than needed to feed themselves. What of their other needs? Surely a farmer who tends naught but a field of wheat needs more than this to sustain his family. And would he need to mill the grain himself? Perhaps he would take his entitlement to the local miller and exchange it for several loaves of bread and a few coins. He then may visit the local butcher, who obtained meat from the shepherd, and exchange some of the profit from the grains for a haunch of mutton. And no trip to the market would be complete without visiting the local ale house or even purchasing a small cask from the brewer himself!

In this way, a small community has formed around a single manor where the people work to produce different necessities of life from the land and—if they are lucky—perhaps a few luxuries as well. Likewise, should the lord collect more than needed to pay his taxes and sustain his own household, he might then sell the excess and grow rich upon the spoils of those who labor under him. Of course, the individual situation might vary.

Often, as was the case in the Middle Ages, life was difficult even for the wealthier classes. Drought, famine, and disease might wreak havoc on the production levels from year to year. Even landed and titled lords might find themselves falling into poverty; and should they fail to deliver results for their lords, they could often be ejected from their position and have their rank and title stripped altogether. In other cases, their lord might demand rights to any excess, and in this way, a count himself might sit back and grow fat upon the toil of his barons and the blood, sweat, and tears of the people laboring under his lesser lords.

ILLUSTRATING FEUDAL LIFE

I always advocate that when applying worldbuilding to prose, one should sprinkle in small details from a character’s perspective to hint at the greater world—rather than bombarding our readers with encyclopedic passages of facts. One might argue that this is not always true, and I could be forced to agree. Tolkien, in fact, did the same in many instances. However, one must be cautious to avoid long, dry passages that bog down the pacing of the story.

Expressing your worldbuilding in a way that is exciting and novel, such as having a reader’s advocate experience feudal life for the first time ever, will help to keep your readers engrossed in the story itself. How then would I suggest applying what we have learned here through a character’s perspective? There are two key takeaways here: one, the relationships between lords and their vassals in the exchange of land rights for service; two, the relationship between lords and the common folk in the exchange of land

⁹ Jimada, M. “Feudalism Economic System.” *Academia.org*. https://www.academia.edu/12221299/Feudalism_economic_system. Bayero University, Kano, Nigeria. Accessed 12 AUG, 2019.

use for labor. In addition, we can illustrate the life of the common folk and how they sustain themselves and their families as well as the community that grows around the necessity of maintaining a diverse workforce in the constraints of a single manor.

Haemish balanced the small leather pouch on his palm, the paltry coins inside clinking against one another as he strode through the market. The weight of it felt insignificant compared to the ache in his back from working the fields. His mule clomped through the mud beside him, and the bulging sacks on its flanks more than made up for this. Inside them were loaves from the miller, smoked pork from the butcher, and vegetables from the grocer that would keep his cellar full until spring. He'd even had enough to visit the Chandler. The light in his modest shack would be a welcome treat during the long winter evenings. He strode through the muck of the village's main road, his field-worn shoes sliding painfully across blistered feet. The cobbler was his next stop.

A rousing cheer drew his attention as he passed the alehouse. Other villagers had sold off their own surplus goods and were celebrating the harvest with strong drink, weak stew, and song that belied melody enough to hardly deserve the name. Haemish bounced the pouch on his hand again, feeling the weight of the copper coins and letting their clinking beat a rhythm to the singing coming from the alehouse's garden. *Just one drink*, he thought as he pulled on the mule's reigns and sloshed through the muck towards the revelry. If Lord Sebastian was worried enough about the spring planting, he might use some of the silver in his coffers to ensure his people's feet were well-shod. He does the same for his horses, does he not? 🐾

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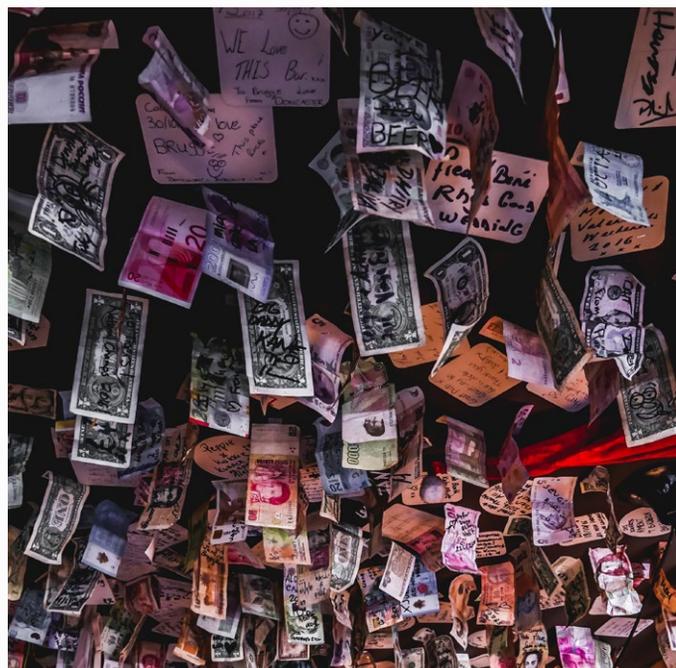
GET FEEDBACK.

The graphic features a white central area with a scalloped border, set against a black background. It includes several white stars around the perimeter, decorative scrollwork lines, and icons of an open book and a pen.



PROMPTS

- What type of economic systems do your nations utilize? For instance, capitalism is very common in our world, but is it as prominent in yours? If not, what lead to the systems in use?
- What determines the relative standards of living in urban areas? How does that compare to rural areas? How do the wealthy live versus the middle and lower classes (if each exists)?
- What valuables, such as silk or spices, do people travel vast distances to acquire? What makes them so valuable? To what lengths will people go in order to trade for/with these items in your world?
- Do cyborgs/augmented people exist in your world? If so, how are they augmented? What are the effects of their enhancements on society?
- If I were to exchange one US dollar for the equivalent amount in your world, how much would I get back? To put it plainly, what is your exchange rate? Additionally, how do your fictional currencies relate to each other? Is there one which out values the rest, or are they all valued similarly?
- Take an animal or creature and re-imagine it. How would a bat, rhinoceros, or griffin fit into your world? It may not make it into the final product, but this is an interesting thought experiment for worlds in which these creatures wouldn't normally exist!



Jonny McKenna on Unsplash

If you would like to write a short story based on one of the writing prompts or have a prompt you would like to share with us, please submit it to contact@worldbuildingmagazine.com or on [Discord](#).

Submission Requirements:

Submissions must be no longer than 5,000 words

The submission must include title and author(s) in case of questions. 🌐

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EXCLUSIVE INTERVIEW: DR. TRENT HERGENRADER

INTERVIEW 
THEORY & ANALYSIS 

Interviewed by Adam Bassett

Card illustrations by [Paolo Orso Giaconne](#), design by [Stephen Slota](#)

I spoke with Dr. Trent Hergenrader, author and associate professor of English at Rochester Institute of Technology. He has published with Bloomsbury, The Magazine of Fantasy & Science Fiction, Weird Tales, Best Horror of the Year, The Mammoth Book of Dieselpunk, and more. Below, we discuss the creative courses he teaches, collaborative worldbuilding methods, and learning theories. Here's what he had to say:

My name is Trent Hergenrader, and I'm an English professor at the Rochester Institute of Technology. I received my Ph.D. in English/Creative Writing from the University of Wisconsin-Milwaukee in 2013, and my research combines three different areas: creative writing studies, digital pedagogy, as well as games and game-based learning. I mostly teach different kinds of fiction workshops with the two most commonly taught ones being Game-Based Fiction (where we use tabletop role-playing games (TTRPGs) as the engine for fiction writing) and Worldbuilding Workshop. I also teach courses in media studies and literature, such as *Game of Thrones* and J.R.R. Tolkien's work. My current favorite class is Transmedia Storyworlds, where we study the ever-expanding *Star Wars* galaxy across film, TV, novels, comics, and games.

Those courses sound really exciting! Could you go into more detail on a few of them?

In the Worldbuilding Workshop, we start the semester by reading most of my book [Collaborative Worldbuilding for Writers and Gamers](#), so we're all working from the same core concepts and terminology. Then, I break them into 4 groups of 5 students, and we cycle through making different worlds in different genres. I usually start by choosing the post-apocalyptic genre because it's pretty accessible for everyone. We read some stories, watch some movies, and talk about the different features of those post-apocalyptic worlds using the structures and



substructural categories I talk about in the book. Using the [worldbuilding card deck](#) that accompanies the book, we'll randomly deal out different values for those categories and everyone's world needs to adhere to them. For example, if military influence is very strong based on the cards dealt, then it needs to be strong for each of the worlds the groups are building. From there, they start discussing the features in their world. The first step is writing a metanarrative, or a short story about the world that's modeled after Wikipedia entries. It needs to cover the world's governance, its economic situation, social relations, and cultural influences at play in the world. Then, they populate the world with some people, places, and things as wiki entries. The final step is me mixing up those entries and randomly dealing them back out to



GENDER RELATIONS



MILITARY INFLUENCE



RULE OF LAW



ECONOMIC STRENGTH

the students; so each gets two people, two places, and a thing or two and they need to write a short scene that includes all of those elements.

The point is to get them to think through how disparate types of characters in the world will feel those social forces differently and will have different kinds of stories to tell. When you've got several students doing this, it usually becomes an interesting experiment in various perspectives on the world. Then we start over with a new world project; only this time, the students get to pick the genre for the class and generate their own values, and the process repeats. For the final world, they can do whatever they want—groups of whatever size, structural values for whatever they want, any genre of their choice. We end the semester with the groups presenting their worlds.

Their work is also public and published using [World Anvil](#). You can see the spring 2019 semester's work [here](#).

The students in Game-Based Fiction start the semester with a little worldbuilding as well. The focus for that course is a deep dive into a single world and the student's player-character that they stick with for the entire semester. The Worldbuilding Workshop is about cycling through different worlds, genres, and perspectives, whereas Game-Based Fiction is more concentrated on developing a single world and having each student develop their own individual

player-character's perspective for the entire semester. Last semester, for Game-Based Fiction, we built a post-apocalyptic version of Rochester—the location of our university—and used the Apocalypse World role-playing game system for the character creation and gaming sessions. You can see it [here](#).

I should also mention that I've been doing these kinds of courses since 2011 or so and have had lots of different kinds of student-built worlds online and available, but the hosting company I used, WikiSpaces, went under last August and all that work disappeared. I have them all backed up, but I haven't had time to restore them all so people can see them. The Game-Based Fiction course also veers into fanfic space. In the previous semester, we used Green Ronin's role-playing game for *Game of Thrones/A Song of Ice and Fire*, and the students' worldbuilding dealt with creating noble houses within the Seven Kingdoms of Westeros. I've also done tie-ins with Fantasy Flight Games' *Star Wars* role-playing game, where the students have to do some worldbuilding of different planets and cultures that operate within that galaxy.

This is all to say that worldbuilding is central to virtually all the work that I do, and I think it's an essential skill to teach students how to better understand how different kinds of worlds "work," to notice the different kinds of social forces at play, and to understand how they affect the characters in that world. Then, they learn how

to be a sophisticated worldbuilder, regardless of whether they're creating their own worlds from scratch or adding onto an existing world. Many of my students are in game design and other creative industries, and I feel it's very important for them to be able to add to existing worlds because that's a very real part of their future careers. Even the media studies classes I've taught on *Game of Thrones*, Tolkien, and *Star Wars* all spend a lot of time looking at how the fictional world is represented.

I wanted to take a moment to dive into this a bit and ask how does collaborative worldbuilding appeal to you? As you mention in the book, many people do it all on their own with solid results.

Right, most people work on their own worldbuilding projects without input from anyone else, and this often works out fine. The point of collaboration is that we're all limited to the bounds of our own imaginations, which in turn are formed by our experiences. Our experiences (and thus our imaginations) are shaped by things like who we are, where we grew up, and places we've been—but also by what books we've read, movies we've seen, etc. When you have two or more people working together on a fictional world, you expand that reservoir of imagination. Quite literally, collaborative worldbuilding guarantees that you'll create something that you couldn't have created by yourself.

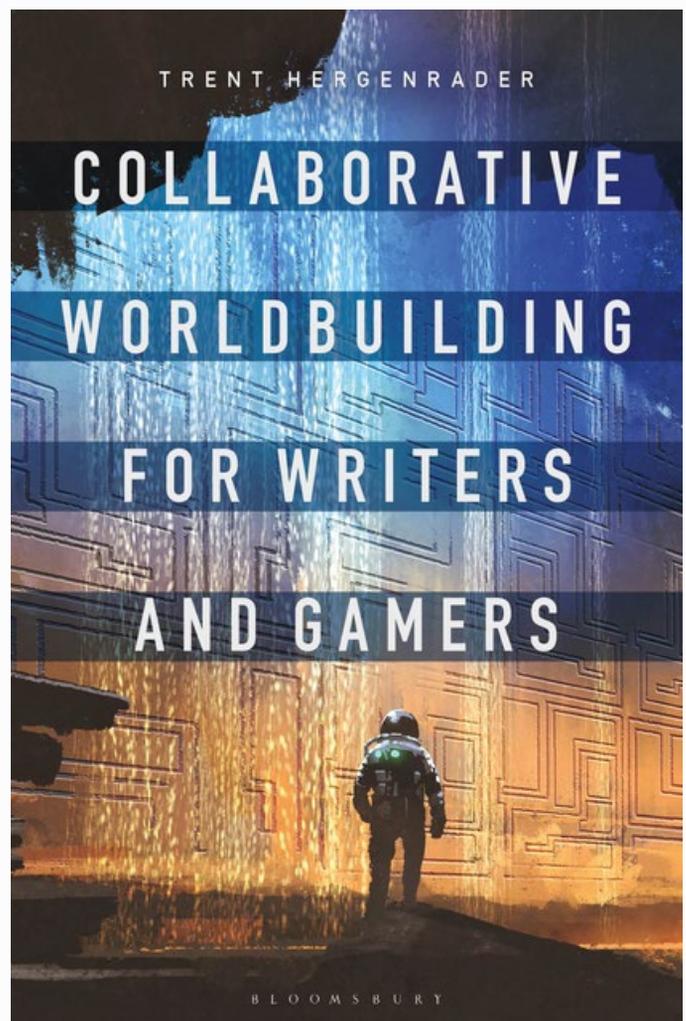
As I emphasize in the worldbuilding class, it's all about perspective. No one has the one true, objective view of the world—ever. We're all filtering through our experiences to develop some sense of how we think the world actually works, but we know that men and women experience the world differently. People of different races and classes experience the world differently. Someone in São Paulo, Brazil will likely have a different worldview than someone living on the Siberian Steppes. Our views of the world change over time and place, too. So the point of collaboration is to try and access as many different perspectives, as many different viewpoints you can handle, and then work them into the fabric of the fictional world. One of the most common mistakes is oversimplifying aspects of a fictional world because it makes it more convenient for the writer. In reality, the world is super complicated and confusing. While over-complexity can paralyze a

writing project, it's still good to try to think through lots of different perspectives to develop a more well-rounded, sophisticated view of the world—whether it's our own or fictional.

George R.R. Martin's *A Song of Ice and Fire* novels are an excellent example of this, as each chapter in each book is told from a different character's perspective. While we start out mostly following the Stark family, before long we get to see the world of Westeros and beyond from different characters' viewpoints. You get to understand that supposed villains, like the Lannisters, view themselves as merely being pragmatic and ruthless in order to maintain their power. Same world, different perspectives.

So, if I were interested in starting a new world with some friends, what are some of the things you would recommend looking at first?

My book!



I should have seen that one coming.

Seriously though, the book was written from my experience running classes and workshops around worldbuilding. In it, I argue that you really need to put some time in making sure everyone is on the same page from the get-go in terms of the goals of the project, how big you want it to be, what genre and subgenre you want, who is the final intended audience—all these aspects outside the fictional world. Then, the process I describe begins with building a solid foundation by deciding the scope (the physical size of the world), the sequence (a basic timeline of major historical events leading up to the "now" of the world, or what I call the point of the present), and the perspective (who is going to be telling the audience about the world). Working carefully through these steps prevents assumptions early on that can lead to major headaches later.

I also urge people to start at the macro-level and drill down rather than starting with a concept or character and trying to build the world around it. When worldbuilding via the latter method, more often than not, the world winds up being perfectly suited to that concept or is laid out like a red carpet for that character. I feel it's better to start big and then work your way down to the specifics of certain cultural practices or the motivations of an individual. After all, none of us chose when and where to be born, so it's not fair for our fictional characters to have these advantages.

Very talented and experienced writers have already internalized these kinds of things in their work but usually with a lot of mistakes and stops and starts along the way. As a fiction writing instructor, I am always trying to find ways to get beginners to speed up that process. With the book and worldbuilding class, I want people to learn how to work creatively with others, which often requires some compromise and flexible thinking. Also, the experience of collaborative worldbuilding illustrates the need to think through many perspectives even when they go back to working on their individual projects.

While this might seem like a fun kind of creative exercise, there's actually quite a bit of theory laced in here, both learning theory and literary theory. One of the things that really struck me in my grad school

studies was how *Dungeons & Dragons* (D&D) leveraged some learning theories that were just emerging without even knowing it. It's one of those things where the creators of D&D and other tabletop role-playing games knew they had something good on their hands. They steadily grew in popularity, but it's only recently that we can kind of see why the game strikes a chord with so many people.

Could you go into a bit more detail on the learning and literary theory you mentioned?

A couple of significant movements in education right now are project-based learning and, to a lesser extent, game-based learning. Both are based in a learning theory called *constructionism*, which itself is an extension of an earlier theory called *constructivism*. The most basic concept is that people learn best while performing interactive activities. This is all learning, not just classroom learning. So, for example, you'll learn to fly fish faster and better if you spend six hours a day out on the water instead of spending six hours reading about how to fly fish. This is, at a surface level, common sense, but in schools, we've basically relied on textbooks and standardized tests to teach and to demonstrate that people are learning.

At a deeper level, constructionism tells us that we shape ideas of how the world works based on our experiences. We touch a hot iron as a small child and get burned, and that experience tells us that hot irons are dangerous and cause pain. That becomes something we work into our mental model of how the world works. This is happening all the time, and we're influenced by all kinds of experiences. As we grow older, we're capable of thinking about experiences we ourselves haven't had, but that we can imagine enough, to include in our mental models of how we think the world works.

So, if we believe that this is how learning works, our understanding of the world is always incomplete, always shifting, and expanding with each new set of experiences we have. Critical thinking is more or less defined as being able to break apart a problem or situation, see it from many different angles, and then taking action based on this analysis. Going back to schooling, all the knowledge we're acquiring through doing things is put into context as we do

them. You can't solve the problem in front of you without certain information. So instead of studying chapter 6 because it comes after chapter 5, you're studying that material in order to put it into practice on your next project. It's highly motivating to see tangible results from what you're learning as you go. Project-based learning uses a scaffolding method, in which the problems and potential solutions increase in complexity as you continue. Then, at the end of the semester or unit or whatever, students have a very solid understanding of the core material and how to apply it to real-world situations, as opposed to textbooks and standardized tests, which are decontextualized and require rote learning that you forget almost as fast as you learned it.

In game-based learning, which is more my area, we use the concept of "leveling up" for this scaffolding, and instead of working on projects, we model projects after games. Simulations and role-play are the two best strategies in my mind. People have had a lot of success with a simulation like *SimCity* to explain the complexities of urban planning—decisions you make today in building your city will have consequences tomorrow. You can probably see how this points toward my approach to worldbuilding. People come together to build a fictional world, but they rely on their real-world experiences. All of these real-world experiences mesh in some places and not in others, and in order to move the fictional world project forward, people need to talk through these issues.

I've said before that my approach to teaching worldbuilding is sort of a literal take on constructionist theory. People are literally building a world together from scratch, sharing their life experiences and understandings of how our world works in order to create a fictional one. Again, this often doesn't happen when people do solo worldbuilding projects. They don't know the perspectives that they don't know.

For fiction writing, there's also some literary theory weaved in. Words don't have stable meanings and two people might interpret the same word differently. So not only are students/worldbuilders working through ideas about the world, but they're also working through how to express those ideas through language.

That makes a lot of sense to me. I'm curious if any of your students have continued with their worldbuilding after your classes?

Many have. I work with lots of students majoring in Game Design and Development who have used worlds from our class as the basis for their final projects. That's always cool because the world is the backdrop for some other kind of story or challenge, which tells me they learned that the complexity of the world simply isn't the point in and of itself but instead it sets the stage for some dramatic story. The ones who have done this really seemed to internalize that the most important thing in storytelling is the experience of an interesting character facing unique challenges. I've also had several students use worlds they built in class as a setting for D&D or other TTRPG campaigns.

As a more random comment, one of the things that really excites me about worldbuilding projects and the rise of interest in TTRPGs and games in general is that they're fulfilling creative outputs that have a lot of value in and of themselves. Historically, creative writing in higher education has worked on the assumption that we should be teaching students how to write literary fiction for publication. There are reasons why it evolved that way, but in the end, only a tiny, tiny fraction of my students have actually gone on to pursue an MFA or have published any literary fiction. To me, it's never seemed like a good goal for a college course. Worldbuilding projects and TTRPG campaigns, on the other hand, are creative outlets that can be very fulfilling without needing an editor of a literary journal to approve of it.

In the book, I take on criticisms of worldbuilding as being a pointless task in a similar fashion. Often when people are complaining about too much worldbuilding, what they're really bothered by is a story that's bogged down with too much detail about the world. But storytelling is different from worldbuilding. Worlds are settings for stories, but the strategies and techniques for worldbuilding are distinct from those of storytelling. It's wise to keep the two separate and understand too that not everything needs to be a story.

During our conversation, Trent and I decided to draft a quick world together, using his methods for collaborative worldbuilding. Read on ahead to see what we came up with, and a demonstration of his world-building cards:

For simplicity, we created a future post-apocalyptic version of Earth, since Trent mentioned earlier that it's a great starting point. Perhaps after some radiation event. Between that, and sea levels rising, things could get sufficiently messed up. That addresses timeline, too.

With regards to point of view, I'm a fan of multiple perspectives, so what about keeping it in the same family (like how Martin starts with the Starks) and splitting those two up part way through?

Sounds good. The post-apocalyptic genre often doesn't involve traveling long distances, both because the technology is no longer there and also because the environment is hazardous. Keeping that in mind, we might want the scope to be something a bit smaller, like a metropolitan area of a large city, or a medium-sized city. What specific location do you think would be most fun/interesting?

And in terms of the timeline, it sounds like you're thinking near-future technology perhaps with slightly more advanced technology than we have today, pre-apocalypse.

Let's focus on one city, then. And I'm not opposed to

far-out futuristic periods—I just don't naturally assume that with things I work on! What do you prefer?

Yeah, I think an indeterminate time in the future but for long enough that memory of the "old ways" has passed. With this genre, it's also useful to think about the apocalyptic event in terms of generations of people since it happened. So it seems like we might be talking three or four generations of people, where those who experienced it first hand are long gone. Another thing with the post-apocalyptic genre is determining what got left behind. If there are whole libraries and the Internet still around, then the world could pick up pretty quickly as you could imagine. But the apocalyptic event could also destroy the archive or make it inaccessible in some way.

This also plays into both scope and perspective. I'd think the "world" of Silicon Valley is going to be very different from that of Ames, Iowa, in terms of what people know and how they learned to pick up and survive.

Maybe one of the two survived. Probably libraries, since I think it takes a lot more to lose every physical library vs. losing data/internet connection. So the info is all still around but it's just not as accessible anymore.

Okay good, so we've got an urban area post-apocalypse where much of the infrastructure was destroyed in the event or collapsed in the years following. We're maybe a century after that event

GOVERNANCE	ECONOMICS	SOCIAL RELATIONS	CULTURAL INFLUENCES	OPTIONAL CATEGORIES
Government Presence	Agriculture / Trade	Class Relations	Art & Culture Influence	Age / Ablism Relations (SOC)
Rule of Law	Economic Strength	Gender Relations	Military Influence	Drugs / Drug Culture (CUL)
Social Services	Wealth Distribution	Race Relations	Religious Influence	Foreign Relations (GOV)
		Sexual Orientation Relations	Technology Influence	Natural World (CUL)
				Non-Human Relations (CUL)

fig. 1: Worldbuilding Cards

where lore has replaced any kind of official account of what happened, and there are repositories of knowledge that are around but inaccessible.

If we keep with the idea that the sea levels rose, then coastal places would be dangerous. Some might just be underwater. Previously landlocked ones are now coastal. I think the last kind of city is the most interesting to me.

Townson, MD is just outside Baltimore. It's also a bit more elevated. We could set it there, in the outskirts of the flooded city.

If this were a project we were going to spend more time on, I'd want to kick this around a bit more, but I think Townson is a good starting point for the scope, sequence, and perspective. It's interesting that these folks would be near Washington D.C. and what that might mean (both literally and metaphorically).

Before we go much further, I'd push us to figure out the social forces at play at the present in Townson. This is where the substructures and card deck come into play. Here are the 14 substructures I use in the book. They're genre-agnostic, so they could be used to model any society, like the Roman or Aztec Empires. Each one of these gets a number from 1 to 5, where 1 means it's practically non-existent and a 5 means that it's very strong and/or extremely prominent. We also need to decide what categories are trending either up or down (i.e. getting stronger or losing strength).

There are a couple different ways of handling the numbers of these categories. We can: a) choose numbers for all 14 categories, b) assign values randomly, or c) a combo of both, where we decide some and randomly choose others (fig. 1). The goal here is to calibrate how we're thinking about these things and how the different values would create different tensions, different factors pushing and pulling on people living in Townson, just within the scope that we decided. We can expand that scope and think about how Townson is different than downtown Baltimore, but it helps us to get these specifics nailed down. This tends to be the longest part of the process and what builds the metanarrative.

Our end goal would be to come up with a little story about post-apocalyptic Townson using the real-world [Wikipedia](#) entry as a guide.

After assigning random values to Trent's 14 main substructures using his deck of collaborative world-building cards, here's what we got (Fig. 2):

At a glance, I'm picking up that we ended up with a fairly stable government but since the rule of law is a 1, it's probably trending downward. The economy seems strong, so that's probably trending up. Social relations are all over the place. Racism is gone but sexism is on the rise? And military has a low influence, so a lack of strong law enforcement might play into why the rule of law is failing.

GOVERNANCE	ECONOMICS	SOCIAL RELATIONS	CULTURAL INFLUENCES
Government Presence: +- 3	Agriculture / Trade: 4	Class Relations: +- 5	Art & Culture Influence: 3
Rule of Law: 1	Economic Strength: : +- 3	Gender Relations: +- 1	Military Influence: 2
Social Services: 2	Wealth Distribution: 4	Race Relations: 3	Religious Influence: 4
		Sexual Orientation Relations: 2	Technology Influence: 5

fig. 2: Results

Yeah, these are all the kinds of questions we'd want to work through. High religion and low gender/sexual orientation relations lead me to think that Townson might be some kind of fundamentalist religious community that has fallen back on traditional gender roles. There's actually a pretty strong economy (we must ask what that means in a post-apocalypse) and great sharing of wealth—which, in a post-apocalypse, would often make the economy a target for people who don't have very much. Meanwhile, a low military suggests the community couldn't defend itself well. Maybe there's no "rule of law" because it's a small community that self-polices, and there's little serious crime because there's so much equality.

Technology is curious, too, and I'd be tempted to link that to the economic strength. Townson's got something going there that makes it a vibrant economic community in comparison with the surrounding areas. That's where the trending values get interesting, right? Economic strength is trending. Is it getting stronger or weaker and how might that impact the society either way? For class, are people trying to make it even more equal, or are things starting to get less equal? Are people agitating for greater gender rights? That's trending, too.

My quick read would be along these lines: things have been great in Townson because they came up with a desalinating technology to provide fresh water from the ocean, but now the resources for that technology are running out, making it unsustainable (economic strength trending down). In turn, this means people are beginning to use their place in society to take more than their fair share (economic distribution trending down). Meanwhile, certain people in Townson are using this instability to agitate for more equal rights for one of the genders (gender relations trending up). The community is also unaware that they're not doing a very good job protecting themselves and their resources as they have no military.

Overall, there are lots of lines of tensions here, which makes for good fiction. It also positions the world at a moment of change, which always stresses people out. Thinking through this world from the eyes on the ground, you could have characters who are: a) researching how to keep the water

production going, b) agitating for social change, c) trying to squirrel away resources before the system collapses, d) trying to form more government structure so decisions are less ad-hoc, and more. It actually kind of reminds me of *Fallout* and *Fallout 2*, if you know those games.

The next step is then trying to populate the world with people, places, and things that represent a bunch of different angles. So, we'd want to start creating more characters than the protagonists just to get a better sense of who else is out there. Who runs the political side? Who runs the religious side? If religion is strong, who in this society is working against it? If the military is weak, who wants to build it up? Who is in charge of the water treatment facility? Who is on the top of the social hierarchy and who is at the bottom? One of the exercises I ask students to go through is to deal with opposites—if you create the "richest" person in this society, who then is the "poorest"? 🌐

Dr. Hergenrader can be found on his [website](#) or [Twitter](#). Find out more about his book, Collaborative Worldbuilding for Writers and Gamers, on its [website](#). The Collaborative Worldbuilding cards are also there!

This interview was edited for Worldbuilding Magazine.

Special thanks to Trent for taking the time to speak and build a quick world with us!

STAFF PICKS

by *Worldbuilding Magazine*



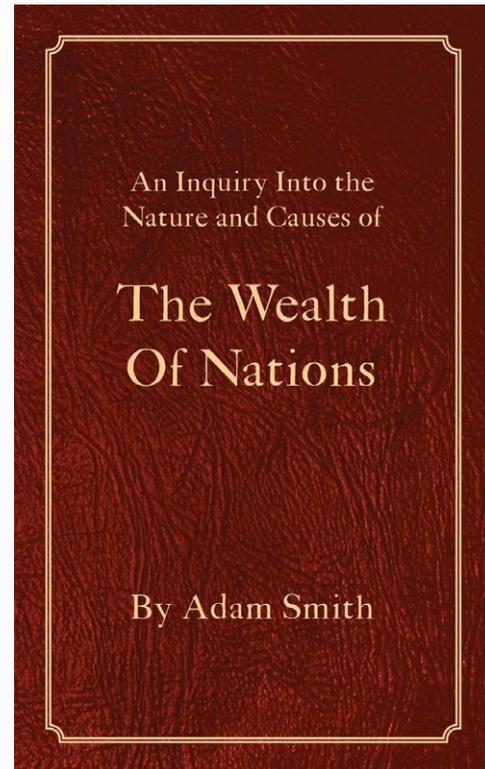
IN TIME

Screenwriter: Andrew Niccol

Media: Film

Picked by: Jaren J. Petty

In Time is set in a dystopian future where the amount of time you have left in this life is currency. This film which divided critics and audience members alike proves to be (at the very least) a fun romp through a sci-fi world that utilizes one of the most intriguing currency swaps in film to tell a Bonnie and Clyde story. Come for one of the more interesting cinema dives into a dystopian future, stay for the guns, cars, and charismatic performances by some of Hollywood's favorite actors.



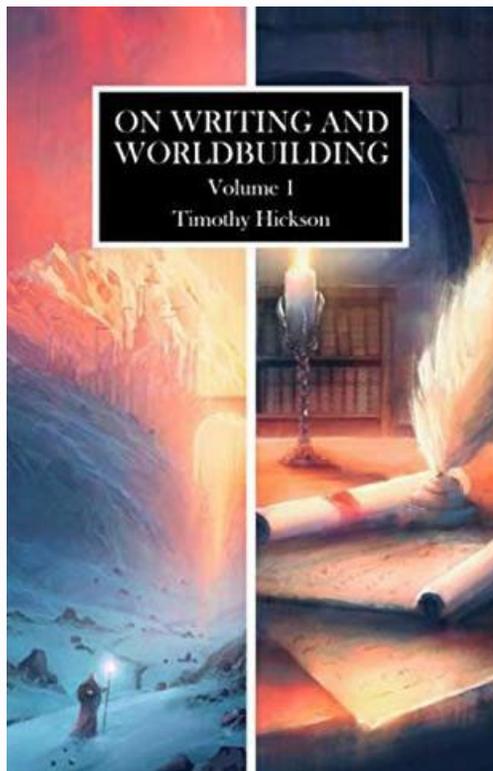
THE WEALTH OF NATIONS

Author: Adam Smith

Media: Book

Picked by: Adam Bassett & Ianara Natividad

First published in 1776, An Inquiry into the Nature and Causes of the Wealth of Nations remains among the most important accounts of modern capitalism. It contains themes regarding regulations on commerce, future income, and more. It's an excellent way to understand the origins of capitalism and the ideas which created it, all of which may benefit that intriguing world you're developing.



ON WRITING AND WORLDBUILDING, VOL. 1

Author: Timothy Hickson

Media: Book

Picked by: Zaivy Luke-Aleman

Writing advice tends to be full of 'rules' and 'tips' which are either too broad to be helpful or outright wrong. In *On Writing and Worldbuilding*, Tim discusses specific and applicable ideas to consider, from effective methods of delivering exposition and foreshadowing, to how communication, commerce, and control play into the fall of an empire.

TAUGANS



TAUGANS USE NATURALLY BUOYANT GASSES TO EFFORTLESSLY FLOAT THROUGH THE FOREST, THEY TRAVEL IN LARGE FLOCKS OF UP TO 50 INDIVIDUALS



TAUGANS USE THEIR LONG TAILS TO WRAP AROUND TREE BRANCHES TO STAY IN PLACE WHILE THEY ARE SLEEPING

TAUGANS USE THEIR LONG BIOLUMINESCENT TAILS TO ATTRACT INSECTS FOR THEM TO EAT

ARTIST SHOWCASE: ERIC FRANER & WRITER BLAISE JONES

ART 

INTERVIEW 

WRITING 



Eric Franer is the artist behind Experiment 18, beautifully illustrating its many creatures. I sat down with Eric and his partner, Blaise, to discuss the world and his artistic process.

Eric: My name is Eric Franer and I am from Cincinnati, Ohio. I generally work with digital mediums, painting in Photoshop and sculpting using a program called Zbrush. I will also occasionally use colored pencils.

Experiment 18 is a worldbuilding project, which started as a video game concept, with help from my friend back in college for my capstone project a couple of years ago. Trapped on a dying planet, humanity seeks salvation in the stars. But after every effort ends in tragedy, it looks like all hope is lost. Until one day, a forgotten experiment suddenly activates, sending a handful of scientific and military personnel halfway across the galaxy. Thrown into worlds of alien life, both civilized and savage, our protagonists seek answers: "If so much life was just beyond our star, why

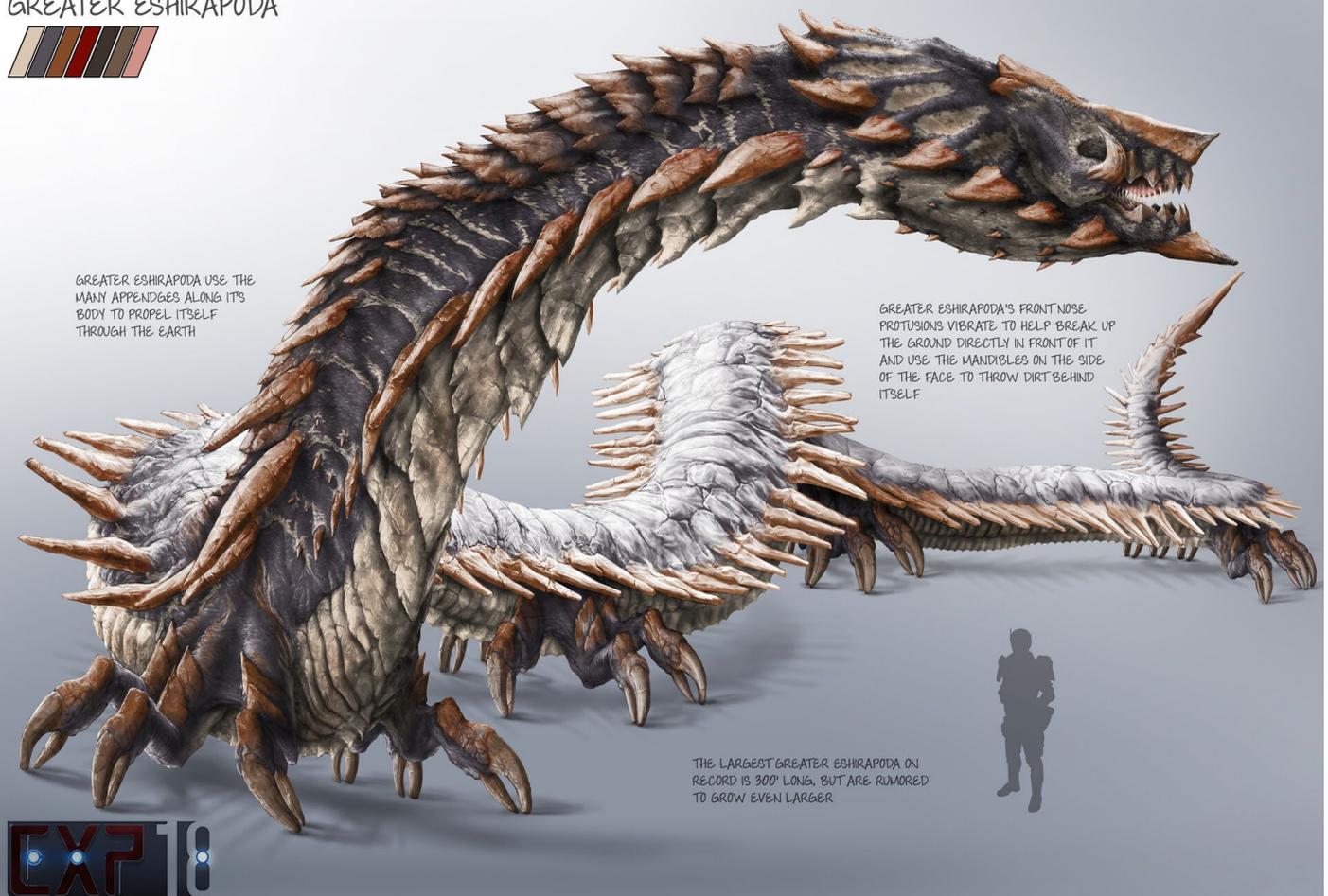
have we never heard from them? Or them from us? With more being manipulated than just politics, will humanity find a new home amongst the galaxy at large or be relegated to extinction on their blighted world?"

Blaise: My name is Blaise Jones. I'm a marine biologist and writer working as a teacher at an aquarium in Salt Lake City, Utah, though, I too am originally from Cincinnati, Ohio. Eric called me up when he first started on Experiment 18 and needed some help with the writing aspect of it, and it kind of snowballed from there.

What is your artistic process like?

Eric: I start with rough sketches/thumbnails; after some exploration, I refine them. I then take it into Photoshop using a Cintiq Tablet to start the composition. Then, I pull references of existing animals to use as inspiration for skin texture and anatomy, and begin painting. I draw out the entire creature in greyscale, which allows me to only focus on the

GREATER ESHIRAPODA



GREATER ESHIRAPODA USE THE MANY APPENDAGES ALONG ITS BODY TO PROPEL ITSELF THROUGH THE EARTH

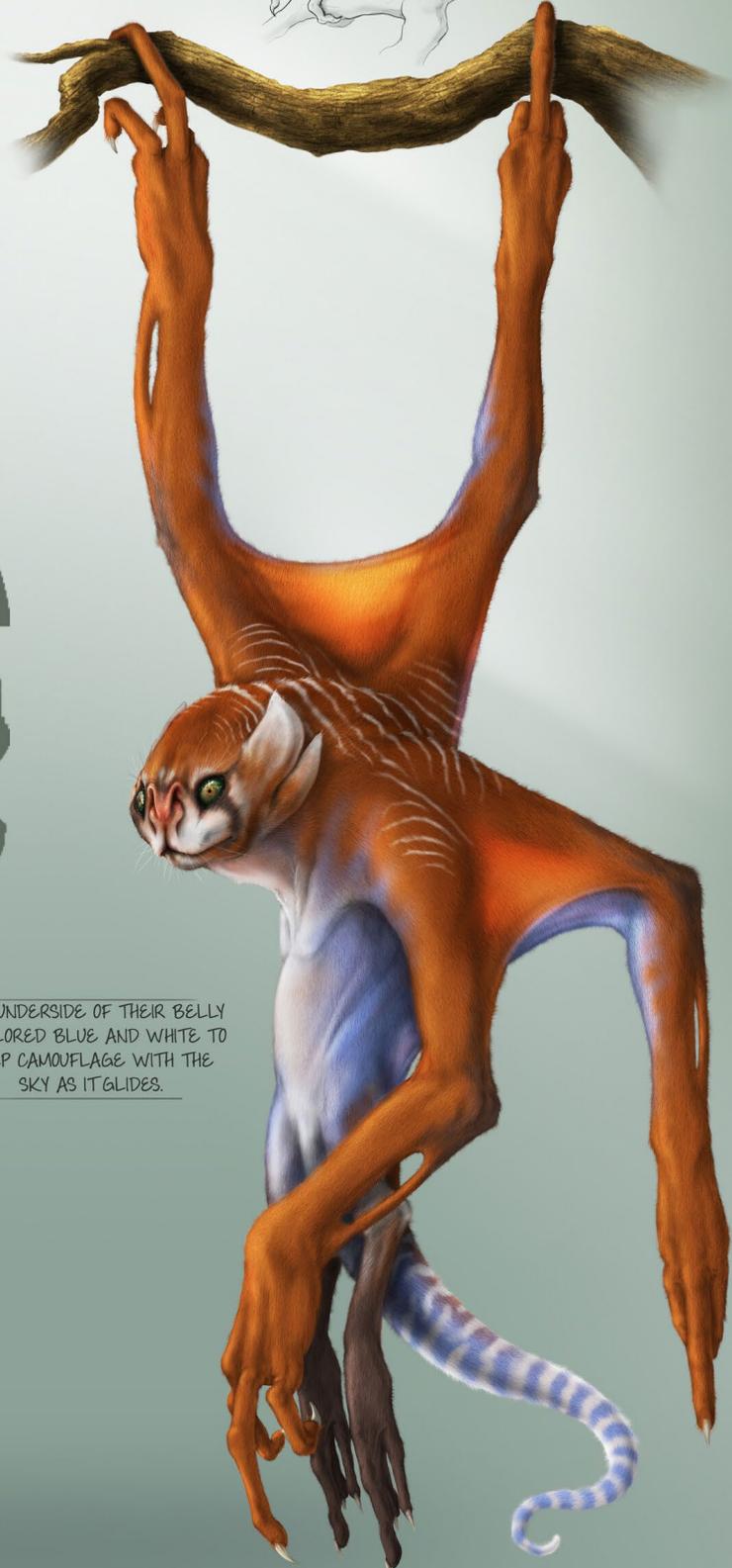
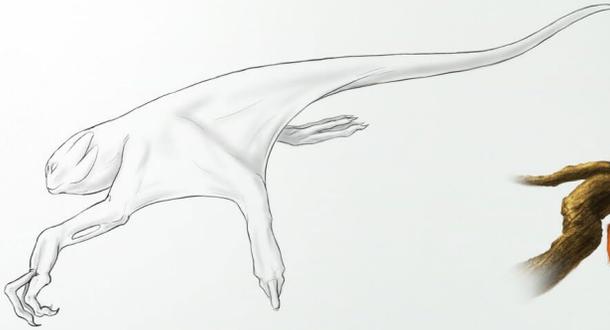
GREATER ESHIRAPODA'S FRONT NOSE PROTUSIONS VIBRATE TO HELP BREAK UP THE GROUND DIRECTLY IN FRONT OF IT AND USE THE MANDIBLES ON THE SIDE OF THE FACE TO THROW DIRT BEHIND ITSELF

THE LARGEST GREATER ESHIRAPODA ON RECORD IS 300' LONG, BUT ARE RUMORED TO GROW EVEN LARGER



COLEOBRIZI

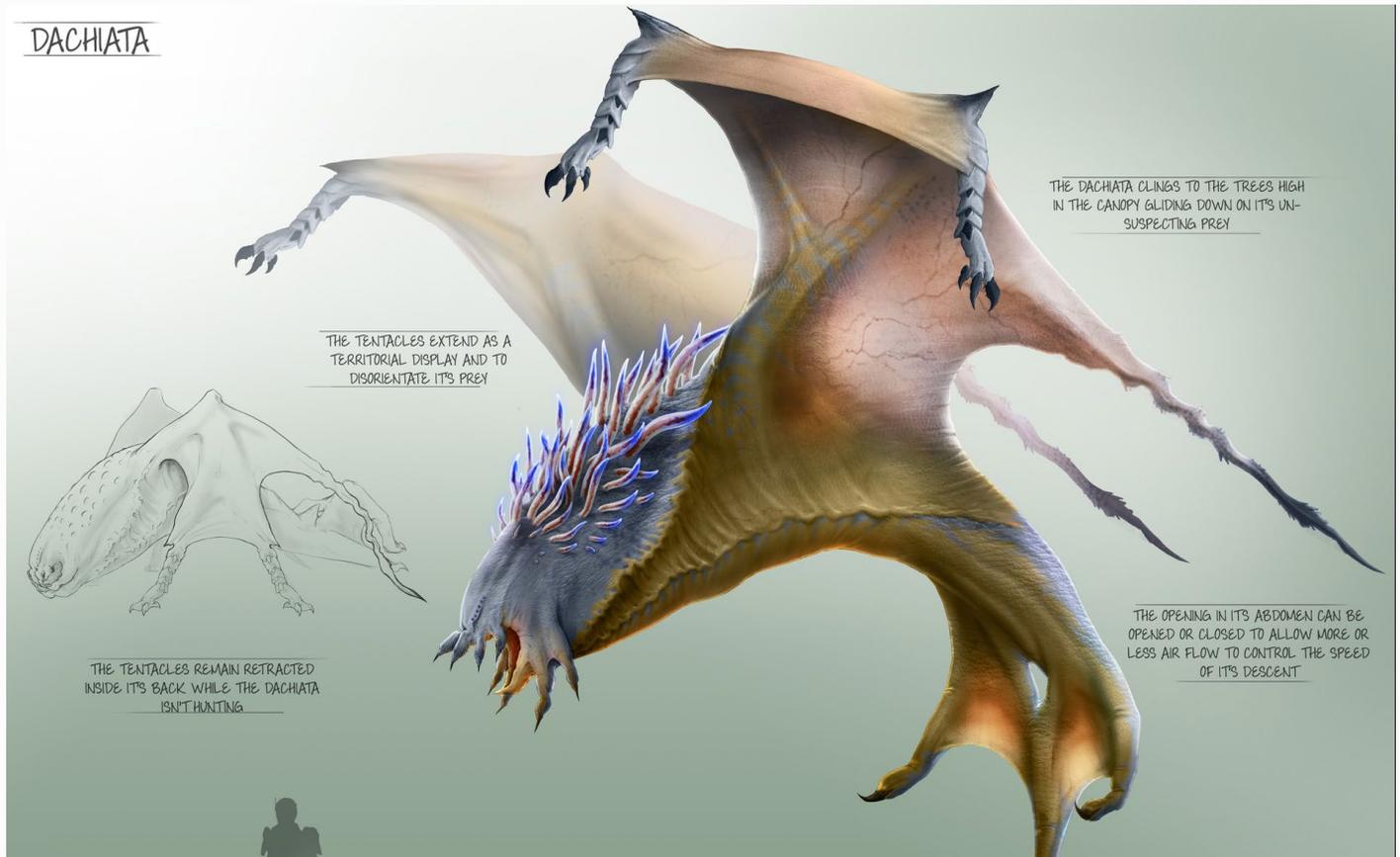
THE LONG MIDDLE FINGERS ARE "SPRING LOADED" AND CAN BE USED TO CAPTURE PREY, LIKE A PREYING MANTIS, OR TO GIVE THEM AN EXTRA BOOST WHEN JUMPING INTO GLIDING



THE UNDERSIDE OF THEIR BELLY IS COLORED BLUE AND WHITE TO HELP CAMOUFLAGE WITH THE SKY AS IT GLIDES.



DACHIATA



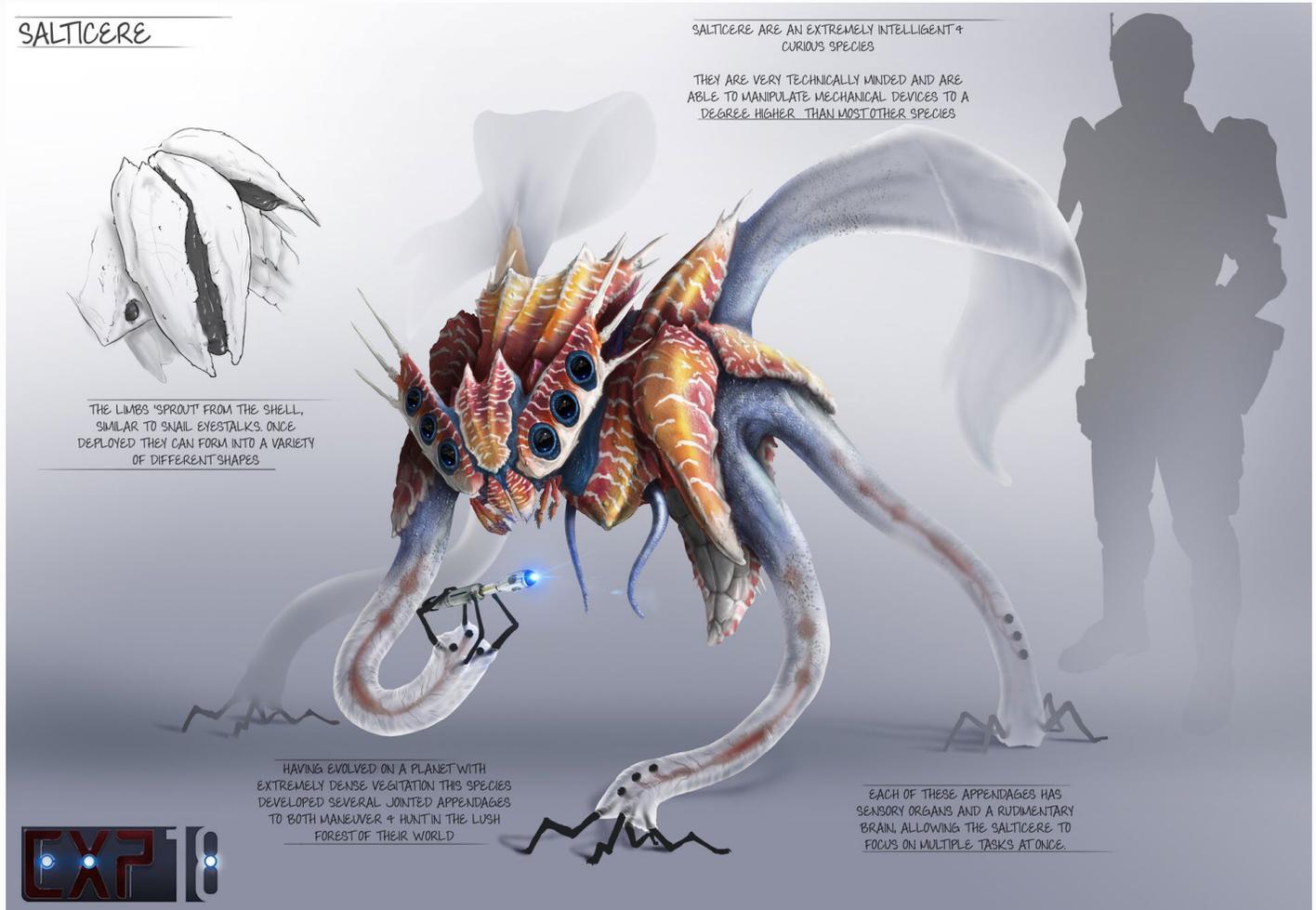
THE DACHIATA CLINGS TO THE TREES HIGH IN THE CANOPY GLIDING DOWN ON ITS UN-SUSPECTING PREY

THE TENTACLES EXTEND AS A TERRITORIAL DISPLAY AND TO DISORIENTATE ITS PREY

THE OPENING IN ITS ABDOMEN CAN BE OPENED OR CLOSED TO ALLOW MORE OR LESS AIR FLOW TO CONTROL THE SPEED OF ITS DESCENT

THE TENTACLES REMAIN RETRACTED INSIDE ITS BACK WHILE THE DACHIATA ISN'T HUNTING

SALTICERE



SALTICERE ARE AN EXTREMELY INTELLIGENT & CURIOUS SPECIES

THEY ARE VERY TECHNICALLY MINDED AND ARE ABLE TO MANIPULATE MECHANICAL DEVICES TO A DEGREE HIGHER THAN MOST OTHER SPECIES

THE LIMBS 'SPROUT' FROM THE SHELL, SIMILAR TO SNAIL EYESTALKS. ONCE DEPLOYED THEY CAN FORM INTO A VARIETY OF DIFFERENT SHAPES

HAVING EVOLVED ON A PLANET WITH EXTREMELY DENSE VEGETATION THIS SPECIES DEVELOPED SEVERAL JOINTED APPENDAGES TO BOTH MANEUVER & HUNT IN THE LUSH FOREST OF THEIR WORLD

EACH OF THESE APPENDAGES HAS SENSORY ORGANS AND A RUDIMENTARY BRAIN, ALLOWING THE SALTICERE TO FOCUS ON MULTIPLE TASKS AT ONCE.



forms and lights/shadows. After that is finished, I add color.

What is your process for worldbuilding these creatures, from concept to finished product?

Eric: Blaise and I created planets with unique environments and we tried to think of creatures that made sense to inhabit those environments.

But sometimes I have a rough idea of the kind of direction I want to go in. Sometimes it's to fill a void in the world (i.e. there aren't enough mammals on this planet). After I have a rough concept of what kind of creature I want, I begin to research online with actual wildlife that's similar to what I want. I start with obvious connections first, but I also try to go a bit off the wall to find inspiration.

Blaise: My thought process is kind of like a genealogical tree. I start with a "what if.." idea and then build from there. For the sake of creature design, let's say the seed idea is, "What if there was an herbivorous snake?" So I'd start with that bubble and draw lines to the questions that need to be answered about it: "What does it eat?", "Why is this species of snake an herbivore?", "Where/how does it find its food?", "How does its body shape help/hinder it?", "What kind of predators does it have?" I just start a landslide of questions and come up with answers to them. This works for me whether I'm thinking up a creature or designing a city.

How do you come up with the ideas behind your work? Do you typically work together on these things?

Eric: Blaise helped me write the overall plot and establish many of the creatures that are in the project. It's definitely a collaboration. When I was first working on it for my senior capstone project, we were in constant communication. We would brainstorm about what creatures would be cool and what would make sense for various worlds. Sometimes he would give me prompts, and sometimes I would just get bored and start to create a creature. I still go to him and other friends for feedback to see what needs refinement.

Blaise: It's definitely a combined effort. Eric would go like, "Hey I need something like this or I had an

idea for that" and then I'd go, "Ooh, what about this, that, and the other?" and it'd continue on like that. I have a background in biology and creative writing, so whenever Eric would show me a rough design or tell me an idea, I'd chime in with some things he'd need to consider to make the creature "realistic" or cool—things that real animals do that he could incorporate into his creature designs. While I did come up with a lot of ideas on my own, they were always just ideas. Eric would always take these ideas and make something visually amazing out of them.

What sorts of conflicts or insights have you come across, if any, while illustrating for Experiment 18? Which creature has been the most challenging to design?

Eric: One of my early critiques from other concept artists was that I was an illustrator, not a concept artist. I would just paint a creature, I didn't try to ground that creature in reality. My only motivation was to make it look cool, I didn't care about *why* the creature looked the way it did. That was eye opening to me. I started designing creatures much differently moving forward. If I would add a feature, I would try to think, "why would this creature evolve this particular trait?" It is important to establish rules for your world. Having set rules in place can really help establish a strong worldbuilding project, even for fantasy worlds.

The rynyx (see next page) was definitely the most challenging to design. Blaise and I had different views of what we wanted for that creature at first. We knew it was going to be subterranean, aggressive, and sentient. Because they were sentient, I started with more humanoid-like forms, but it just wasn't working. Blaise had the idea that they should be more serpentine, and that is when the creature started to really take off. The rynyx went through about four major redesigns over the past five years.

What are your own views about using art for worldbuilding?

Eric: I have always been a visual person. A picture is worth a thousand words. So much story can be conveyed in a piece of art. My first real introduction to worldbuilding, as it pertains to art, was the video game *Mass Effect*. The amount of thought that went into every aspect of that universe was inspiring.

Every mechanic had a place in-universe, and all of the designs were purpose-built. The world felt lived in, like that universe had existed long before it was created by the developers.

Blaise: To expand upon this, I think a lot of storytelling can be done without a single word. There's a concept in writing, and I'm sure it applies to visual arts as well, known as "Show, don't tell." It's one thing to say, "oh, these creatures burrow" and another to describe or design its body plan that clues the viewer in on what this creature is all about. If we're referencing video games, the *Dark Souls* franchise does visual storytelling so well. Often times, you can see the entirety of a character's storyline in how they move, what they're wearing, and what they have on their person. Little details can tell big stories.

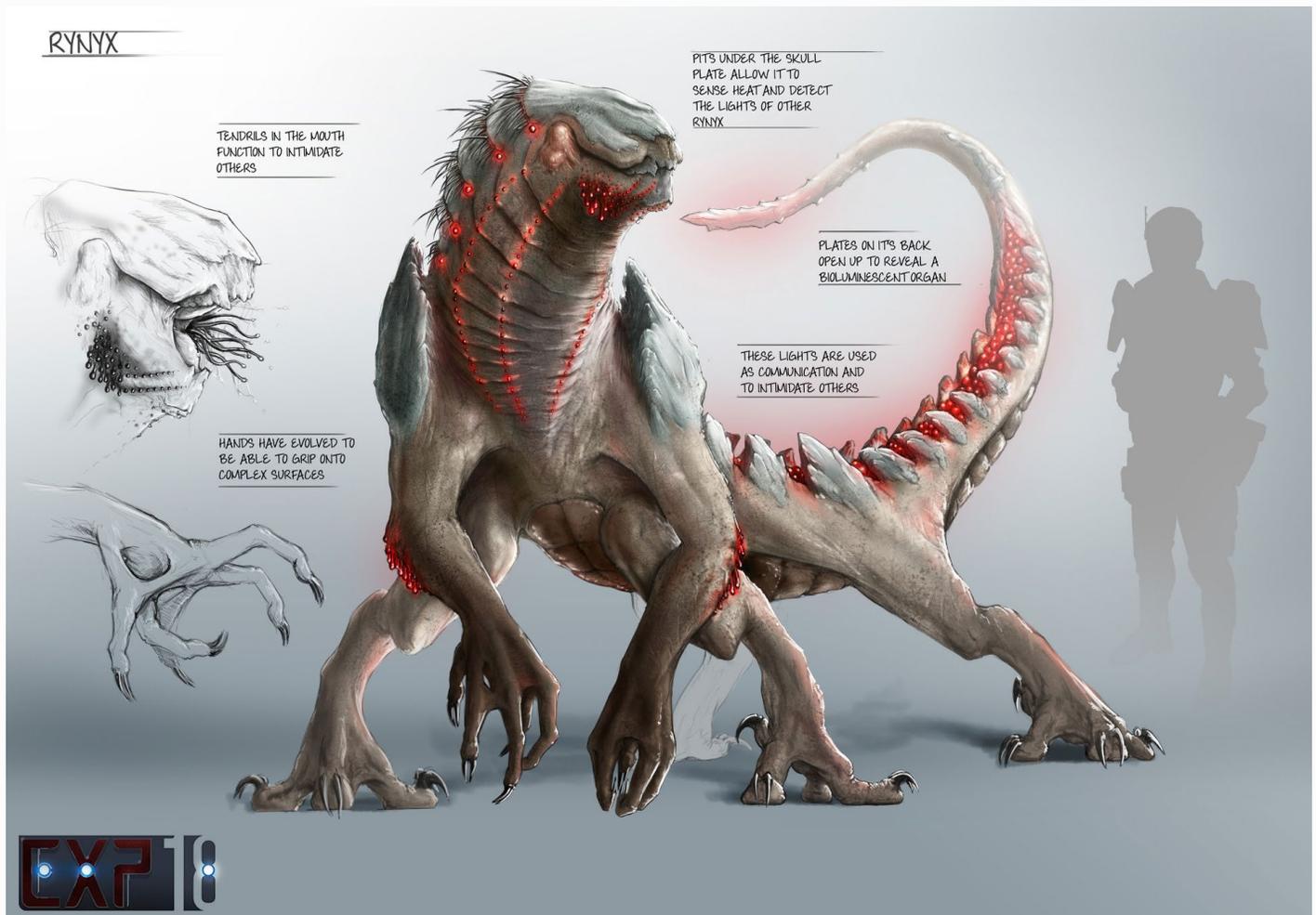
What do you want your viewers to see in your work? Do you want them to explore and experience the world you've placed before them? Do you seek to evoke specific emotions?

Eric: I hope they see a world that is believable, that feels like it could exist. I hope for people to be inspired by my work like I was inspired by *Mass Effect*. I spent hours just reading the codex and talking to every character to get as much information on the world as I could. I want people to be able to get lost in our world too.

Any tips for people who want to delve into world-building? Perhaps a tip for worldbuilding creatures?

Eric: With art, use references whenever possible. I didn't use references for years because I felt like I was cheating. As soon as I started pulling images of animals or using skin textures in my paintings, everything I designed became far more believable. Look at nature and don't be afraid to copy things from there in your designs and go outside of your comfort zone. Look for inspiration in unexpected places.

Blaise: I want to echo Eric here and definitely say that you should use what you know, and fill yourself

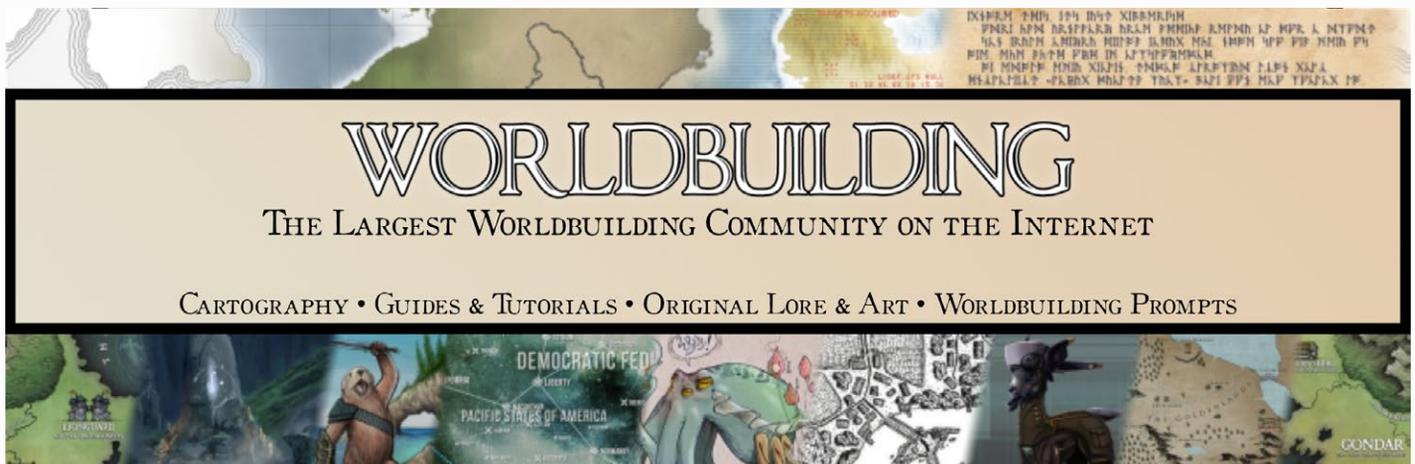


with enough real-world information as possible. So much of good fiction is really just references to other media or even history. Case in point, *A Song of Ice and Fire* is pretty much just the War of the Roses, but with dragons and zombies. Take what you know and what you like, mash it all together, and make yourself a tasty jambalaya of worldbuilding.

As far as creature design goes, look in places you wouldn't think to. Every animal out there has some really cool adaptation that makes it unique and can be copied to give a creature more flavor. Let's take hedgehogs for example. They're cute and they're covered in spikes, so if you were going to reference one for a creature's design, you'd think to just use those two things, right? But if you looked deeper and learned more about their behavior, you'd learn hedgehogs will actually take things they think smell good, chew them up, and then coat themselves in it. Take that behavior and add it to some large carnivore. Now you have a terrifying monster that chews up its victims and heaps their mashed up corpses onto its back like someone glued a sepulcher to the back of a tortoise. 🐉

Eric can be found on his [website](#) or [Instagram](#), where he posts updates about Experiment 18 for everyone to see! Blaise, on the other hand, has published a reference on sharks, so if you're interested in learning more about that you can find it here on [Amazon](#).

This interview was edited for Worldbuilding Magazine.



The banner features a top section with a world map and a block of gibberish text. Below this is a large, stylized title 'WORLDBUILDING' in a white, outlined font on a dark background. Underneath the title is the subtitle 'THE LARGEST WORLDBUILDING COMMUNITY ON THE INTERNET' in a smaller, white, serif font. A horizontal line separates this from the bottom section, which contains the text 'CARTOGRAPHY • GUIDES & TUTORIALS • ORIGINAL LORE & ART • WORLDBUILDING PROMPTS' in a white, sans-serif font. The bottom of the banner is a collage of various worldbuilding-related images, including a map, a creature, a city, and a character.

WORLDBUILDING
THE LARGEST WORLDBUILDING COMMUNITY ON THE INTERNET

CARTOGRAPHY • GUIDES & TUTORIALS • ORIGINAL LORE & ART • WORLDBUILDING PROMPTS

ASK US ANYTHING

by B.H. Pierce

Art by Ahmed ElGharabawy

This *Ask Us Anything* is presented by a senior member of the Amalgamated Order of Interdimensional Persons, Percival Aluminus Illumnius, Adjunct Professor of Gateways, 3423 WestNorth Street, Dunny-on-the-Spire.

How do I build a world with a genre in mind?
— Anonymous

First and foremost, read the genre. If you want to make a cyberpunk world, read *Neuromancer* and watch *Blade Runner*. If you want to make a fantasy world, read Tolkien, C.S. Lewis, or Sanderson. Although, since you're building a world for a genre, I must assume that you love the genre and have already perused the core examples, so you must go deeper. Find out what works inspired the genre you're working with. Cyberpunk pulls a lot of ideas and themes from detective fiction and film noir, whereas Tolkien was an authority on Norse Mythology and Fairy Tales, which he used as building blocks when he made Middle Earth.

Now that you have a start on a Bachelor's in Literature, you must go deeper still. Everything you have read has been influenced by the real world. Find those influences and study them. Cyberpunk usually features megacorporations, often as antagonists. Research real-world corporations, their habits, and their practices. Not only modern ones, but look into the "robber barons" of the Gilded Age and the myriad East Indian Trading Companies. If you want to make a fantasy world set in the desert, research real-world desert civilizations like the Egyptians and the Ancestral Puebloans.

After you've done all this glorious research, it's time to put everything you've learned to work. Using what you've lucubrated, synthesize your world, but with your own twist on the genre. As we've seen, genres and worlds pull from a variety of sources to create something unique. Rather

than simply copying genre conventions, research where those conventions came from and ensure your creation has its own flair. This is simply another example of how research is the answer to all questions. Well, all the ones that matter anyway.

How do you start making a magic system for your world?
— Barbarossa

This depends on two things: how far into the process of worldbuilding you are, and what you want the world to be. If you want your world to be heavily magical with giant monsters roaming the hills and mighty wizards patronizing coffee houses, then you're going to need a very robust, very active magic system. If you want your world to be lightly magical with monsters that haven't been seen in a



century and wizards who live in swamps, then your magic system is going to be far more subtle. Also, if you have relatively little work done on your world, then you'll have much more flexibility when you make your magic system. If you build the bulk of the world before you turn your attention to magic, then you have less room to work with. This is because what can and cannot be accomplished with magic will likely be crucial to the nature of your world.

Think of magic as you would technology. It is a skill people can perform which will make some tasks easier to accomplish while complicating others. If fire magic is commonly practiced, you may find far more buildings made of stone than those made of wood. If magic allows for much greater food production or preservation, then population size will increase quickly. If magic is fairly prolific or powerful, it will be of much greater import to the history and day to day life of your world. Obviously, if it is rare or weak, then the opposite holds true. To begin your magic system, start by deciding what you want your world to be, and determine what role magic played—whether it helped or hindered—in creating each element of that world.

In a lot of worldbuilding conversations, I feel like people are talking past one another, and there is a certain alienation that comes from talking about others' worlds. My questions are: how should one approach or frame one's worldbuilding conversations so that productive and engaging discussions can be had? What do you do to avoid talking past other worldbuilders? What does constructive criticism mean in terms of worldbuilding? How can you talk about worldbuilding without having to front-load a lot of information about your world? — Ike Riva

We should revise the 'Anything' part of this feature. *Ask Us A Thing* perhaps? I digress. This barrage of questions does cut to the heart of the dilemma of figuring out how to dissertate your creation with efficacy. Well-made worlds are dense things with each fact about them propped up by a dozen others, so describing them can quickly become bogged down by the Great Context Swamp. Let's talk about three general pieces of advice and then discuss each of the questions individually.

Number 1: *Know Your Audience*. If you're going to discuss a mountain range with geologists, you had better be prepared to talk about continental plates and fault lines.

Number 2: *Talk About Your World in Layman's Terms*. This is especially a challenge for someone with the prodigious education I have, but it is a skill I have mastered due to constant necessity. An overabundance of technical terms will make it difficult for someone new to your world to cognize it, so use basic terms wherever you can. For example, "my world has huge pods of space whales" is much easier to understand than "my world has huge pods of space cetaceans".

Number 3: *Know Your Discussion Goal*. Say you make a post about a typical farm family in your world and you want to discuss what sort of tools and equipment they would need for the type of crops they would be growing. Make sure that point is clear, or else the discussion may derail and you'll wind up debating bovine biology for three hours and deeply regret not taking that minor in Agricultural Science. With these three rules in mind, let's tackle those individual queries.

How should one approach or frame one's worldbuilding conversations so that productive and engaging discussions can be had?

#1 and #3 apply best here. Know what you want to get out of the discussion, and make sure you bring it to people who can give it to you. Keep in mind though, even when your audience isn't the ideal one, we can still gain some insight. For example, if we wanted to discuss the aforementioned geology of a world but had an audience of people not well-versed in the topic, we still might learn some interesting things about how that group interprets things or what those places could be used for. Things beyond a purely geological view. If you're building a world you want to be accepted by a variety of people, you should be seeking a variety of audiences.

What do you do to avoid talking past other worldbuilders?

First off, don't loredump. No one wants to read 15

paragraphs as a prerequisite to talking to you about your creation. Start your conversation by talking about something simple and ask for specific advice. Keep an eye on yourself, and if you spiral off into useless esoterica (unprompted), be ready to put yourself back on the right track.

What does constructive criticism mean in terms of worldbuilding?

#3 is the most helpful here. You can get constructive criticism if you ask specific questions. “How does my world sound?” is not a helpful question. “Is this how an 18th century fortification would work?” is. Anyone reading it knows you want an evaluation on the forts in your world and can give it to you if they so desire. Specific questions like this can also lead to interesting directions, whereas general ones like “is this good?” won’t produce much of value in most cases.

How can you talk about worldbuilding without having to front-load a lot of information about your world?

Ahhh, the never-ending struggle. The great challenge of a world is that every piece of it is interconnected, which can make you think that you need to discuss *everything*, and that way lies the Great Context Swamp yet again! If you have the time to consider what you want to talk about, strip it down to its barest essentials. If you want to talk about mining, you don’t need to talk about the ethnic traditions of the miners. If you want to talk about sailing ships, you don’t need to talk about the forests where the wood to make them comes from. These are topics you can always move on to later. To begin, find that which is vital, that which is central, and that which you are unsure of. Talk about that and only that. If you fail, you’re just going to bore a lot of people while you drone on about the process of harvesting oak forests. If you succeeded, you’ll learn a lot about techniques pre-steam mariners used to tack into the wind.

If you would like to ply my knowledge and wisdom with an inquiry of your own, please send it to one of the following locales: contact@worldbuildingmagazine.com, [Discord](#), [Twitter](#). Some junior members of the Amalgamated Order of Interdimensional Persons will sort through them and select the most pertinent ones for my perusal.



Play the Paths: World of Adia Tabletop RPG in our FREE open beta at

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MEET THE STAFF

Curated by Adam Bassett



Please introduce yourself! What is your role for the magazine? What do you hope to do going forward?

Hello! My name is Zaivy, and I'm currently pursuing a master's in publishing. I'm an editor for *Worldbuilding Magazine*. I really hope I can just go through life editing as a career. I love the process and often end up learning from the writers while I do it. My passion projects are my stories. I'm not sure if I'll ever publish them, but I have fun writing them.

Do you have any advice to worldbuilders or writers who are just starting out?

Yes! Follow skilled worldbuilders. One of my favorites is *Hello Future Me*. I love the way he breaks down exposition. For instance, delivering your exposition through conflict can be a way to make it interesting and meaningful. For a worldbuilder, you can get lost in the details. Knowing how to incorporate those details in a meaningful way can be

essential to your storytelling (if you worldbuild for the purpose of storytelling, that is).

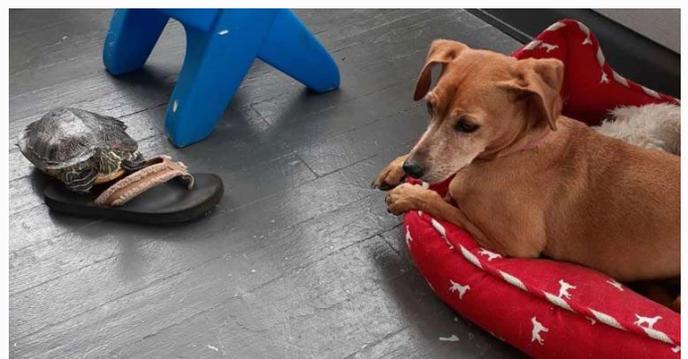
Tell us about your world! What type of economies do you incorporate?

I have a few different worlds I'm working on. One of them uses your typical coin currency. I'm afraid my currencies are rather boring! But honestly, working on this issue of *Worldbuilding Magazine* has made me think about alternative methods of currency and how to make them unique (which is, I suppose, the point of it). More on this story as it develops! In terms of economic systems, it's largely a market economy world with a huge river market. It happens to be the largest international market in the world's current time period and even comes with its own bridge-library. Its location makes the river a perfect for trade, but happens to be on the border of the most magically dangerous part of the world! The surrounding mountains on either side of the river are made up of magical ecosystems that have little investment in humanity's wellbeing.

Anything else to share?

Join us in our [Discord](#) if you haven't already! If you're going to New York Comic Con this year, feel free to message me! Hopefully I'll see you there.

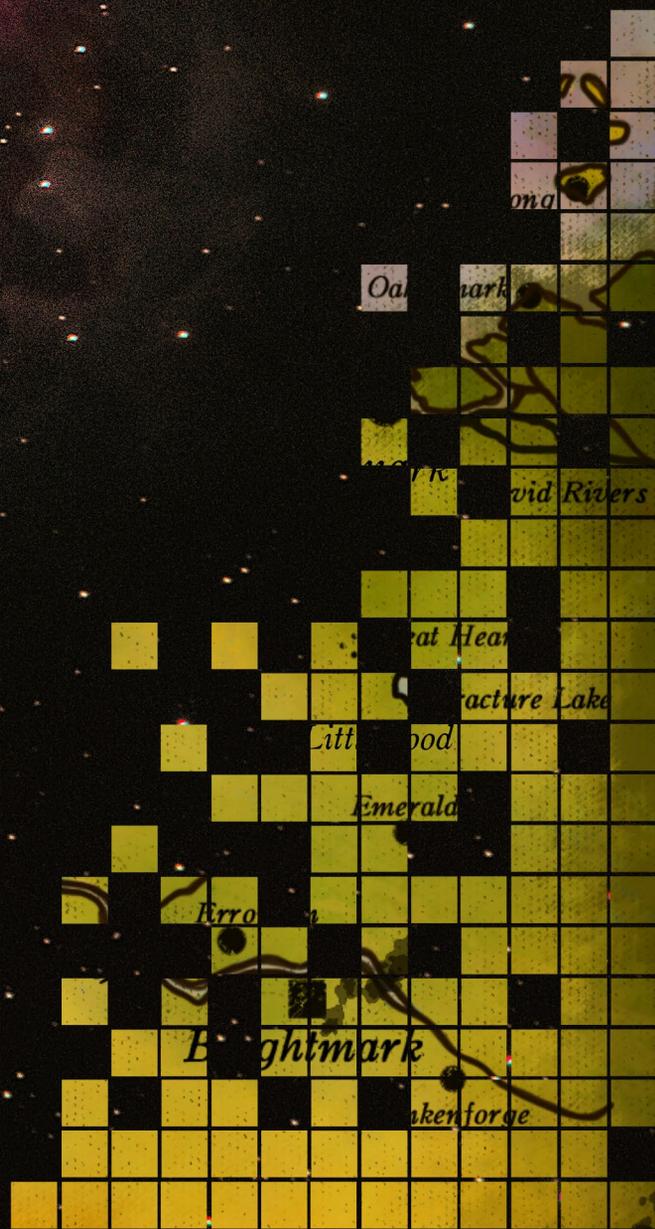
Also I have two pets! One is a grumpy and music-loving turtle named Chuckie. The other is a cuddly dog named Happy. They are both adorable. 🐢



BUILD SOMETHING NEW WITH US.

Worldbuilding Magazine is always seeking writers, editors, artists, and other passionate worldbuilders!

Our **Writers** help by providing content for the magazine **Editors** refine it and provide invaluable feedback. The **Artists** breathe life into the magazine and our **Layout Artists** arrange everything into the final products you see. Last but not least, the **Meta** department assist with organization and the community. If you are interested in helping with our next issues? Email, or find us on Discord.



Alexander Andrews, Adam Bassett

LETTER FROM THE EDITOR

Salutations, worldbuilders!

I hope you enjoyed the penultimate issue of our third volume. *Economics* has been a blast to compile for you. I'm very proud of the work our team has done here. Personally, it's been quite educational, and I hope you've found it such as well. It's a joy getting to interact with the members of the worldbuilding community, such as Dr. Hergenrader, and getting to see their perspectives and their creations.

I also want to thank [World Anvil](#) for partnering with us on one of their community challenges. It's always a pleasure working with them, and the submissions were all quite good. Seeing all the creativity and passion of the worldbuilding community is one of the main things that keeps me excited about working on this magazine. It's a community-run passion project. Everything you see in these issues is created by members of the community just like you. If you'd like to help contribute to the magazine in any way, please let us know! We're always looking for more artists, organizational help, editors, writers, and more. If you'd like to help, please send us an email at contact@worldbuildingmagazine.com, or drop by our [Discord server](#), which has an active worldbuilding community in of itself.

Even if you're not looking to contribute to the magazine, you may still find the people and resources on our server helpful to you and your worldbuilding. We have prompts every Wednesday, a place for you to try your hand at game mastering, a collaborative worldbuilding project set on the moons of a gas giant, and more!

Keep a look-out for our next issue. The last of volume three, *Trades & Occupations*, comes out in December! We'll be focusing on professions, which ones do or don't exist in a world and why, what impact they have on the rest of your world, and similar topics.

Happy worldbuilding!

LieutenantDebug, Editor-in-Chief

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