**ep 82 plague**

**New Track:** Welcome to the endless knot podcast where the more we know,

[00:00:04] **Mark:** the more we want to find out

[00:00:05] **New Track:** tracing serendipitous connections through our lives

[00:00:08] **Mark:** and across disciplines.

[00:00:16]**Aven:**  Hi, I'm Aven

[00:00:17] **Mark:** and I'm Mark.

[00:00:18] **Aven:** And today we're going to be talking, a few months after it first became topical, about plague. Before we do a couple of things. First of all, we want to say thank you to some new patrons. Thank you very much to Thomas McDonald. Welcome back, and thank you again to Tim Hammack and great, and very individualized, thanks to A Pseudonym.

[00:00:43] **Mark:** Thank you all!

[00:00:44] **Aven:** Your support is greatly appreciated. Second, the last episode that came out was recorded before the murder of George Floyd and released just after things had started happening, protests in the States, but without addressing it, other than on our show notes page, this episode now has been recorded on the 25th of June; by no means are the protests over nor the things they're protesting, but this isn't about those particular events. We haven't recorded something directly about them. It's not something that we've specifically been able to kind of figure out a particular element that we can add to the conversation. But we can say that we very much believed Black Lives Matter.

[00:01:29] **Mark:** Yep.

[00:01:29] **Aven:** We very much support protests and the protests that are being made.

[00:01:33] And we urge you to, if you can, contribute time, money, and energy, self work, whatever is helpful or useful. And to our listeners who are affected by the issues of violence, police violence and brutality, our hearts are with you. We would also point you, if you do want to know some of what we think about some of the sort of larger and theoretical issues, which are not the specific issues of racism that are being addressed right now, but larger issues around race and racism, you could look at some episodes from several years ago now, episodes 51 and 52 are our two parts on race and racism in ancient and medieval studies.

[00:02:15] **Mark:** So in academia,

[00:02:17]**Aven:**  yeah. they were in part a reaction to the Charlottesville marches.

[00:02:21] Yeah. We also will repeat in our show notes, some particular places you can go for reading lists and for donations. And we also did an episode called "Us and Them", which is about words for race and divisions of humans in the ancient & medieval world. I'll put that in the show notes as well.

[00:02:42] And there are some other thoughts in our color series on white and black,

[00:02:46] **Mark:** Also on the various social media, I posted some etymologies appropriate to the current concerns, particularly addressing things like police violence. And, so looking at, you know, some of the, some of the vocabulary around that that's been thrown around, words like thug, for instance.

[00:03:06]so you can find those in our various social media, Twitter, Facebook, Instagram, tumblr,

[00:03:15] **Aven:** and I may also put a couple of other links to some, some of our, some other people who have been doing amazing podcasts on that subject. So I'll put a couple of those together into the links as well. So I just didn't want to leave that unaddressed.

[00:03:28] However, as we said, last time, we tend to take a while to get around to talking with topical things. We're not good at talking about what's directly in the news. Unfortunately, plague is by no means out of the news. Now this is very much still an ongoing concern, but you know, all the, all the on-it podcasts that were doing, their plague and disease episodes three months ago.

[00:03:50] But we're fashionably late to the party. So this episode is about plague, but we have a special treat, which is a special guest, indeed Moxie from the, Your Brain on Facts podcast has joined us for this. So what you're going to listen to is our conversation and sharing of facts and stories about different kinds of plague through history.

[00:04:16] And it was wonderful getting to chat with Moxie. She, her podcast is fabulous and you should check it out if you haven't. She also has a new book out, which you will hear about.

[00:04:25] **Mark:** Yeah. If you like our stuff, you really will, I think, enjoy Your Brain on Facts. Cause it's got all kinds of really interesting obscure stories that you probably haven't heard before and surprising facts.

[00:04:38] So if you like that kind of trivia content that we have in our podcast and on our YouTube channel, you will really enjoy this podcast.

[00:04:46] **Aven:** Exactly. So without further ado, we will turn to that conversation.

[00:04:51] So welcome Moxie. Thanks so much for joining us.

[00:04:58]**Moxie:**  I really appreciate you having me on.

[00:05:00]**Aven:** So before we get started on our various different takes on the plague. Do you want to give us a few words about your new book? Because this is definitely some of the most exciting, good news that I've heard in awhile.

[00:05:12]**Moxie:** So pretty exciting for me, if nothing else, the book is just like the podcast is called Your Brain on Facts. The show is the weekly half hour of things you never knew you never knew. So the book is an extension of that about two thirds of which are topics that have never, and will never be on the podcast, including some of my favorite things like, physicians testing things on themselves and the social hierarchy, mating and birthing of spotted hyenas, which is absolutely metal, and I never get tired of.

[00:05:45]**Aven:** Great. And this is now out, right? It was released a couple of weeks ago.

[00:05:49]**Moxie:** Yep. Available from, well, I hope from your local bookseller, you'll want to check in with them from a safe distance and you can get it through bookshop.org, which is like a central clearing house for indie bookstores. And of course, there's Amazon.

[00:05:59] If you have to.

[00:06:01] **Aven:** Yes, there's always Amazon. If you have this great, well, we definitely recommend everyone should try that out. And of course, if you aren't already listening to Moxie's podcast, you should be doing so. Get on over. Alright. So today we're going to talk, as I said, of various different takes on plague.

[00:06:20] And while some of these will certainly be serious, many of them are not necessarily focused on the most doom and gloomy bits, though I have yet to decide whether or not I'm going to read a particularly horrific passage from Lucan. We'll see. My getting in my Latin poetry fix. We'll see. but we're going to start as we usually do with some words.

[00:06:40] So Mark, take it away. Talk to us about etymologies for diseases.

[00:06:44] **Mark:** Yeah. So I'm going to start with, just a handful of words that we have been using a lot in the last few months, particularly pandemic and epidemic. So both of these words came into English around 1600, pandemic, comes from the Greek prefix pan, meaning all, and the Greek word demos, meaning people, which is also found in the word democracy, which means literally "people rule".

[00:07:12]so a pandemic is all the people. It's a disease that affects the entire, people. Epidemic, has a different prefix in the beginning there, it's epi meaning "among, upon". So among the people or upon the people and that word demos, it had the original sense, before meaning people, it meant a district, a region rather than the people, the place ,coming from the proto indo European root \*da- meaning to divide.

[00:07:41]Quarantine is something else we've been doing a lot lately. The, word quarantine essentially means a period of 40 days. The medical sense first appeared in English around 1660, coming from the Italian practice, dating back to the 14th century, of making ships arriving from plague stricken countries, anchor off shore for a period of 40 days and eventually the word extended to mean any period of isolation, not necessarily 40 days. Earlier in the 15th century, the same word had been used in English to refer to a place where Jesus fasted for 40 days.

[00:08:16] So it's not specifically tied to disease. It's just tied to the idea of 40 days. Then in the 16th century, there were legal texts, it was used in legal texts to refer to the period of 40 days that a widow had the right to remain in her dead husband's house if he hadn't left it to her. And so this is the, this could happen in the instance of entailment where it has to stay with the male line so he had to leave it to the closest male relative and therefore not his wife. The legal possibilities of leaving estates to women, for instance daughters, only came about in part as a reaction to the mortality rates of the black death, which we'll talk about later. Quarantine, comes ultimately from Latin, quadraginta meaning 40 from quattuor, meaning four, and can be traced back to the proto indo European root \*kwetr-, meaning four.

[00:09:12] And that initial K w that initial "qu" sound like Q U which, in English became the F sound in four, to match the F sound in five because they just thought it would be good if they alliterated, in Greek that "qu" sound instead became a T a T sound before front vowels, like "ee" and "ai", as it is in this case producing, the number word in Greek Tessera or tettare meaning four. When combined with the Greek word, peze, meaning foot or edge, this produced the, word trapezion, which, could refer to both the irregular four-sided shape, the trapezoid and a four-footed table, which kind of had that, that shape. And later this produced, this also produced the word trapeze because, with the crossbar, the ropes and the ceiling, it also made that that four-sided shape.

[00:10:14] So trapeze quadruped and four footed are essentially the same word made up with the same cognate word elements from Greek, Latin and English, respectively.

[00:10:25] Bacteria is a word that comes ultimately from a proto indo European \*bak-, which meant staff that's used for support. So a walking stick, essentially. Bacterium, was coined from the Greek bactron meaning staff because the first bacteria discovered were rod shaped.

[00:10:48] So it was simply a description of their appearance. There are a number of cognates for this word: imbecile comes from Latin in, meaning 'not' and bacculum, from that same root meeting stick or staff with the notion of being without support and thus weak. and this then came to mean weak or feeble, and later on, more specifically weak of mind.

[00:11:10] So that's a very late development in fact. Baguette is a rod shaped bread. Debacle, also from this root, comes from the notion of unbarring referring to the sudden rush of water that's released when the ice breaks up on a river and then extending metaphorically to a sudden downfall or disaster. Virus, which is the type of pathogen we're most concerned with at the very moment, ultimately comes from the proto indo European root

[00:11:39]\*wies-, meaning to flow; from this root, probably comes the Latin word virus or virus, meaning poison, which was the original sense of the English word virus in the 14th century, before it developed its modern sense related to infectious diseases, over the course of the 18th and 19th centuries.

[00:12:00] And finally, infection. Infect, which is attested in English since the 14th century comes from Latin infectus, the past participle of the verb inficere, which means to dye, stain, and by, extension corrupt or spoil, from the prefix in, as in ingest and inject, and facere, to make, or do.

[00:12:27] So the literal sense here is to put in, hence it relates to dyeing. You put the cloth into the dye to give it the color. Now in middle English, infect could sometimes be used with a entirely neutral sense, but it soon gained the negative sense and that, that sort of predominated, so moving from dye, which you might want to do, to stain, which is putting colors onto clothes that you might not want to do. And then having, the, the sort of more figurative senses of stain and to taint or spoil. The disease sense in particular was a post-Latin development. So this happened, this, this wasn't present in, in the Latin word, it's only there, it only sort of grows in the, English derivative.

[00:13:16]**Aven:** Well, that's just a delightful set of words.

[00:13:20] **Moxie:** I learned so much just now I'm like, there's so many things I wanted to comment on, but I was like, no, he's, he's got more. He just keeps like

[00:13:26] the trapeze thing, the imbecile, the baguette... uh, if I could go all the way back to the beginning, am I, am I correct in describing it that epidemic means like the land and pandemic means the people, in terms of disease spread?

[00:13:41]**Mark:** well, they, it's the demos part that originally meant the land, the district and then came to mean just a group of people. So, that,

[00:13:50] that shift is, is in both of those words, the difference here is that pan means all the people and the epi part of epidemic means among the people.

[00:14:00] So not necessarily all the people, but affecting many people.

[00:14:05]**Moxie:** Okay. So sort of, sort of like yellow alert, red alert.

[00:14:07] Yeah,

[00:14:07] exactly. Go from epidemic to pandemic. Okay.

[00:14:09]**Aven:** Yeah. I'm a little unhappy that you stuck the baguette into all of that, because while it's an interesting thing, I just don't like associating my favorite type of food with bacteria.

[00:14:21] **Mark:** Fair enough.

[00:14:21] **Moxie:** If you like, if you like French food, you better embrace microbes because. fermented butter, yogurts cream, creme fraiche, cheeses

[00:14:33] **Aven:** wine. Yep. So microbes

[00:14:37] **Mark:** are really important to our food really.

[00:14:39] **Moxie:** Oh yeah. And don't forget beer. So, so I mean, not most food would be bad if we didn't have beneficial microbes, but French cuisine in particular

[00:14:48] would take a hit.

[00:14:49] **Aven:** And that's fair. That's fair. I guess the bread itself would hardly be rising without a couple of microbes along the way. Those aren't exactly bacteria. Though the sourdough ones are.

[00:14:59] Okay. Well with those under our belt, as it were, shall, we'll turn it over to Moxie. Tell us about a plague?

[00:15:09]**Moxie:** well, I, I like to do things a little left of center.

[00:15:12] So the plagues that I have brought you today are referred to as mass psychogenic illness. So what we have here is not a physical ailment moving from person to person, but what seems like a mental ailment that spreads quickly, within a group of people. Three in particular. And the first one is one that I think if you've heard of a mass psychogenic illness, you have probably heard of this one and it is the dancing plague.

[00:15:44] And our timing here is actually excellent because yesterday was the anniversary of the start of the dancing plague in Aachen Germany in 1374. And we couldn't have planned that if we tried.

[00:15:57] Cause I just, I ha it happened to be on History Pod, which is a great little, like three minute long daily, you know, this day in history was the first thing I listened to every day.

[00:16:06] But the, the dancing plague, also called dancing mania, st. John's dance st. Vitus's dance or choreomania. So chore-, just like a choreography choreomania, occurred, primarily in mainland Europe, between the 14th and 17th centuries. It involved groups of people dancing, erratically. Sometimes a dozen, sometimes hundreds, maybe even thousands.

[00:16:32] It affected men, women, and children who would dance until they collapsed from exhaustion. And many of them actually danced themselves to death. So there was the outbreak in Aachen in what at the time was the, the Holy Roman Empire and it spread outward from there. And there was another very notable incidence in Strausberg, Alsace.

[00:16:54] What is modern day France in, 1518. From author Justus Friedrich Karl Hecker, which is a lot of names for one person. he describes the spectacle of the choreomania as follows. "They formed circles hand in hand and appearing to have lost all control of their senses continued dancing regardless of the bystanders for hours together in wild delirium, until at length, they fell to the ground in a state of exhaustion.

[00:17:23] They then complained of extreme oppression and groaned as if in the agonies of death. Until they were swathed in cloths bound tightly around their waists, upon which they, again, recovered and remained free from complaint until the next attack." So people just started dancing, it would start sometimes with just a single person and other people would see them and they start dancing to, and more and more people and they would dance until they collapsed and then they'd catch their breath and they'd get up.

[00:17:52] And they would dance some more. People were seen to, to fall to the ground in almost like fits, foaming at the mouth and, and twitching in the limb. But as soon as that settled down, they'd hop up and start dancing again.

[00:18:06] **Aven:** Wow.

[00:18:08] **Moxie:** The name, the name Saint Vitus's dance refers to a Saint Vitus of the late middle ages, who was believed to have curative powers.

[00:18:16] As many saints were of course, in the Catholic church. One attempted method to address a dancing plague was actually that they sent musicians to play for the dancers. I guess it was sort of the sweat out a fever kind of, kind of idea that, that, okay. Let's just let them, let's help them get it out of their system.

[00:18:38] And then they'll stop. Didn't work. I'm sure to the shock of absolutely no one. There are some theories as to what could have caused this, the most common theory being ergot poisoning.

[00:18:52] **Aven:** And that's always the go-to, isn't

[00:18:55] **Moxie:** it?!,

[00:18:55] it is always yet. I know, I know that 99.9% of your listeners already know what ergot is, but for the person who just turned in, ergot is a fungus that typically infects grains like rye and wheat, and it has properties similar to LSD and is known to cause mania and bizarre behavior. And since lots of people will have eaten this tainted wheat, because when the ergot gets ground with the grain, it's just like E. Coli and ground beef and a processing plant. It may have been in just the one cow, but now it is everywhere.

[00:19:29]So that's how you get whole villages that are affected by this. It's what people think spurred on the Salem, witch trials and things of that nature. We just love, anytime there's bizarre behavior, we're like, Oh, ergot, must've been, it must've been a wet summer. It must have been a wet summer. There must be, or get in the rye . Though, if I could just like wild tangent here,

[00:19:51] **Aven:** what on our show!? Shocking!

[00:19:54] **Moxie:** Well, this one does have to do with words. It has to do specifically with last words. One of, one of the people put to death during the Salem witch trials was not actually on trial. It was a man named Giles Corey, and he had refused to enter a plea. Hmm. And there was nothing under the legal system at the time they could do with him.

[00:20:13] If he wouldn't enter a plea apart from apparently lay him between two boards and begin to stack rocks on him.

[00:20:21]And the only thing that Giles Corey said over the course of the three days, they pressed him under stones until he died, was "more weight". And if you can find like more bad-ass last words, call us here at the studio.

[00:20:40] Cause I want to know. And there were, they were also theories of, religious cults or one, throughline with mass psychogenic illness is it arising out of times of great stress and the middle ages were not a piece of cake for the average person. So, you know, there was a lot of stress going around, but it is, it is unlikely we will ever really know what caused these people to dance themselves to death.

[00:21:10] **Mark:** It was just Saturday night fever. Of course.

[00:21:15] **Aven:** I'm striking that from the record.

[00:21:18] **Moxie:** Well, I was going to make a joke about how they're then they're supposed to be staying alive. I really didn't want to feed into what he was doing.

[00:21:26] **Aven:** Thank you. I appreciate that.

[00:21:30] Yeah. It is such a, you know, it's one of those things where, especially if it had only happened once we probably would just not believe it, you know, no, the sources are, somebody made it up, it didn't happen. But the fact that we have multiple accounts and different times and different places, it really is.

[00:21:47] It's very hard to kind of wrap your minds around exactly what was going on.

[00:21:52]**Mark:** I love stories like that.

[00:21:56] **Aven:** There's certainly, I mean, of course, obviously it adversely affected certain people in this. If they died, that's very bad, but somehow it's still feels like if you're going to go of all the ways to go by plague, it doesn't seem the worst of the plague

[00:22:12] **Mark:** deaths to have

[00:22:13] **Moxie:** no, I mean, if you have to choose only in the category of plague, that's definitely one of the better ones,

[00:22:22] **Aven:** okay. Thank you. So, moving on to perhaps plagues that might have less historical relevance, but, not as much fun. Mark, did you want to talk a bit about plagues and literary history?

[00:22:36] **Mark:** Yeah. And I'm actually gonna start way back in ancient Greece in ancient Greek literature. so first of all, what words did they use to, refer to plague? there are a couple of words that are pretty common for that. One is loimos, which means plague or pestilence. that's the word that is used by Homer in his, Epic poem, the Iliad, and by Sophocles the playwright, in, his play Oedipus, the King, The etymology of this word is actually uncertain, but it may be related to a couple of other Greek words.

[00:23:12] One of which is limos, meaning hunger or famine. so you can kind of see the overall connection there. And it might also be related to loigos, which means ruin, havoc and can even be used specifically to refer to pestilence. But beyond that, we don't know where it comes from. However, it does go forward and indeed comes into English.

[00:23:36] There is an English derivative for this, meaning, pertaining to plague, the word is loimic, it was used in 1822, and I don't know that it's been used again since, I don't think this became a particularly common word. It was someone who knew Greek and thought it made them sound smart, probably.

[00:23:54]now. The other, commonly used word in Greek to refer to plague is nosos, which means sickness or disease. And again, it's of unknown origin. It possibly comes from a pre Greek language, and got adopted into Greek. Again, there are English derivatives, in particular, the word zoonosis, which first appears in 1876.

[00:24:20]and it means a disease communicated to humans by animals. This word will come up later. So, remember it,

[00:24:28] **Moxie:** It also goes the other way. It's also things that you can give to animals.

[00:24:31] **Mark:** Yeah, exactly.

[00:24:31] **Moxie:** Anyone who has had ferrets can attest because ferrets can catch human influenza.

[00:24:36] **Mark:** Right. Oh,

[00:24:37] **Moxie:** interesting. So don't sneeze on your ferret.

[00:24:40] **Aven:** Good life rule.

[00:24:42]**Mark:** so yeah, the plural is zoonoses, and, there are a couple of other, zoonotic, there are a couple of other forms of this. the other part of that, that word is zoon, zoon, from Greek just means animal. So it's the source of the word zoo, for instance, or zoology, if you prefer.

[00:25:00]Now talking about those two Greek texts, Oedipus the King, a tragic play by the playwright Sophocles has this plague motif in it at the beginning. And in fact, the plague motif is a frequent one in ancient literature. so I'll be talking about two examples as I say of this kind of motif. So Oedipus the King was written by Sophocles, as I said, and starts off with a plague sent as a divine punishment, sent by Apollo for the ruler's misdeeds.

[00:25:32] Now the thing is the ruler in question, Oedipus doesn't know his origins or his misdeeds. He doesn't know why it's happening. So let's do some backstory. This is all stuff that Oedipus has doesn't know, but the audience would have already known it. There was a prophecy that foretold that the son of King lion and queen Jocasta of thieves would kill the father and sleep with the mother.

[00:25:57]this curse, upon Laius, was, given to him for violating sacred laws of hospitality. And there's another huge backstory about that, that I won't go into. so they decide to take action and dispose of this baby. they were trying not to have a baby but Laius got drunk and one thing led to another.

[00:26:15]so, they try to dispose of this unwanted baby, by just leaving it out on a cliff and hoping it died, but it was rescued. And eventually it was brought up by the Royal family of Corinth. Now Oedipus later on in his life receives essentially the same prophecy, but thinks it applies to his.

[00:26:35] Corinthian parents who he believes to be his actual real parents. And so therefore he does the smart thing and leaves town so that he doesn't go anywhere near his parents again. And they won't end up, having all these problems. And on his journey, he runs into Laius. He ends up killing him, not knowing who he is.

[00:26:54] And he also frees the city of thieves from a monster, the Sphinx, and as a reward, he is given the queen Jocasta to marry and the throne along with her, again, not realizing that she is his mother. So this plague strikes Thebes, no one knows why. So Oedipus is intent on investigating to save the city yet again, cause he's a hero. And many people try to dissuade him from this investigation, including the blind seer Teiresias.

[00:27:26] He says you don't want to know, just drop it. Well, eventually he does find out. He finds out his whole backstory, he realizes he's murdered his father and, slept with his mother. And so he blinds himself. The end.

[00:27:39]**Moxie:**  Like you do

[00:27:42] **Mark:** great story.

[00:27:43]**Moxie:** So Apollo sent a plague to punish the ruler who didn't know why he was being punished.

[00:27:48] It sounds a lot like Apollo is a passive aggressive girlfriend going like, well, if you don't know, then I'm not going to tell you.

[00:27:55] **Aven:** Oh, yeah, there is nothing more passive aggressive than the Greek gods.

[00:27:59] **Mark:** So Homer's Iliad starts off with exactly the same motif, though in this case they know why it's happening at least,

[00:28:07]so it starts off with a plague brought on by essentially a leaders in competence. There's a plague in the Greek.

[00:28:13] **Moxie:** Wait, wait, wait, can we go back to that phrase, please?

[00:28:15] **Mark:** A leader's incompetence? Yeah, this is going to come up again.

[00:28:18] **Moxie:** We just need a minute to sit in the phrase: "a plague brought on by the leader's incompetence."

[00:28:24] **Mark:** Yes. We'll return to this point. This very obvious connection.

[00:28:28] **Moxie:** Why return? We're here right now.

[00:28:30] **Aven:** We never went away.

[00:28:32] **Mark:** We never went away. Never left.

[00:28:33]So essentially what happened was, It was brought on by the leader because that leader Agamemnon leader of the Greeks refuses to return Chryseis, who is the daughter of the priest, Chryses of the Trojans.

[00:28:48]He has her because he captured her during the war and her father, Chryses, prays to Apollo who sends the plague. And when the Greeks realized that this is the reason, they're all understandably, I suppose, unhappy with Agamemnon, but particularly Achilles is unhappy with Agamemnon for this.

[00:29:08] And he yells at him and says, you've got to return her, ou're a terrible leader, what are you doing? And so when, Agamemnon finally relents and returns Chryseis, he's bearing a grudge against Achilles. So instead as a recompense for the loss of his captured girl, he takes.Achilles' captured girl, Briseis. This incenses Achilles barking, his wrath who refuses to fight for the Greeks anymore. And the rest of the Epic is basically working out of this wrath. That is the summary of the Iliad.

[00:29:41] **Aven:** Yup, can't fault you there. Yeah, a bunch of bad leaders and toxic masculinity, that's all it is .

[00:29:49] **Mark:** So in both these, texts, plague is figured as a reflection on their leaders who are in various different ways problematic. This makes sense in terms of ancient understanding of disease, since they didn't have a germ theory of disease. So plagues seemed. Random and capricious. So therefore they must've been brought on by the gods. And since leaders are ultimately responsible for their kingdoms, the, it must be something that their Kings did wrong.

[00:30:19]This is similar, I guess, to the, and you're going to hate me for bringing this up Aven, but this is a bit similar to the idea of sacral kingship, which mythologist Sir James Fraser kind of ran way too far with, and any ways he was really talking about fertility. So what happens to if the fertility of the land is, is, goes down it's because it's connected to, the health of the King.

[00:30:40] And so you save the land by sacrificing the, the King and getting a new King and rebirth the land, but it's the similar idea of there's a connection between the King and the kingdom. And so if, something is wrong with the King, something is also going to be wrong with the kingdom. So in other words, if a leader errs, all his kingdom suffers, and that can also be seen as a very apt metaphor

[00:31:07] **Aven:** I don't think it even comes to the level of metaphor, I think it's just statement at this point.

[00:31:14] **Mark:** So indeed, this reflects on leaders in times of plague and they have some relevance perhaps today. We too judge our leaders in times of hardship, such as right now with the COVID-19 pandemic. Just think about how many articles op-eds social media posts, etc. compare the responses of the various world leaders saying, well, this one is doing better than this one and so forth. And so it's a sort of barometer for what we think about our leaders. Not naming any specific names of course.

[00:31:48]**Aven:** And not comparing any specific country with any other specific country. No, we would not do that to a guest.

[00:31:55]**Moxie:** Really. I'm already traumatized.

[00:31:58]**Mark:** So that's, how plague has figured figured in Greek literature. Now, Aven you're going to talk later about Roman literature. So I'm going to jump forward to medieval literature and again, talk about two particular texts that have plague in them.

[00:32:12] In medieval literature too, plague can be seen as divine retribution for sin, and, in medieval world, responses to plague kind of reflect this.

[00:32:21] So for instance, there is a rise in what are called flagellants around the time of the black death in the 14th century. Flagellants are, people who basically this is an extreme version of mortification of the flesh. They basically whip themselves as punishment for their sin, which is. They thought was bringing on the plague.

[00:32:40] And in fact, a lot of times that the thinking was they could go really overboard and make up for other people's sins if they really punish themselves. So to balance the books, they'll take, take on, all the punishment for the entire land, the entire city or whatever. So there was a big boom in that, right around the black death.

[00:33:00]But with the unremittingness of the plague, there were other responses too. One of these responses, at least according to some scholars, is the Renaissance. Instead of focusing on the divine retribution, since the church didn't seem to be able to make anything better and nor were these, these flagellants, people just sort of thought, well, Nothing makes it better. So let's start thinking about something good instead and take our minds off the trauma of plague. Now let me just give a little bit of background on what the black death specifically is. The black death was the outbreak of the bacterium. yersinia pestis in Europe peaking between 1347 and 1351.

[00:33:50] Now this particular bacterium did continue to have outbreaks, so this isn't just a one shot deal. It reoccurred many times over the next few centuries. But when we use the term black death, now we're referring to this one particular outbreak in the middle of the 14th century. Though as I'll discuss later, the term black death is a bit of an anachronism to refer to that 14th century outbreak. But it was, this particular outbreak was the most deadly pandemic in recorded human history. It had a profound effect on European history and culture and its effects were reflected in European literature at the time.

[00:34:24] The most famous example of which is a work by the Italian Giovanni Boccaccio, right around the time of that plague in the middle of the 14th century, this text is called the Decameron and it's a collection of short tales with a frame narrative in which seven young women and three young men escaped the black death in Florence, Italy by retreating to the countryside in a Villa and entertain each other by telling tales in prose.

[00:34:51]These tales focus on very human affairs in contrast to the sort of divine matters, that are at the heart of that other great Italian, work, the Divine Comedy by Dante. this is entirely sort of focused on human affairs instead of the divine. And so it touches on matters such as sexuality love practical jokes wit and even church corruption.

[00:35:17]Many have seen this work as the beginning of the Renaissance and as a shift away from the religious to the secular as a reaction to the grimness of the plague, dissatisfaction with the church and corruption within the church was already there. So it's not the first example of this, but the failure of the church to provide any respite from the horrors of the plague may have intensified it.

[00:35:41]So we could ask ourselves, in what ways does this reaction of a turn towards the profane, the earthy, the frivolous, mirror, our reactions to COVID-19? We're all watching a lot more Netflix, I suppose. we could look at the social

[00:35:58] **Aven:** I don't watch anything raunchy or profane on Netflix and I take personal exception to that suggestion

[00:36:05] **Mark:** and we can also,

[00:36:06]**Moxie:**  I want a list of those things so I can avoid them!

[00:36:09] **Mark:** Yes.

[00:36:10] **Aven:** Check the show notes for things I'm definitely not watching during the pandemic.

[00:36:14] **Mark:** And of course people's social media behavior has increased.

[00:36:19] **Aven:** distraction. Let's put it that way. Distraction has certainly been something and I would say not on the raunchy side, but on the human side, like the early preoccupation with baking. Yeah. That's so many people faced, I think actually was, in some ways a reaction to that sort of need to find some sort of bodily comfort

[00:36:35] **Mark:** Yeah, a turn towards just the sort of everyday.

[00:36:38] **Aven:** I also have a pet theory that it was all about us showing mastery over microbes, but I don't know how psychologically valid that is. Look if one microbe's going to get us I'm damn well gonna figure out sour, sourdough,

[00:36:52] **Moxie:** I have been curious how many people's sourdough starters are still alive.

[00:36:56] **Aven:** Mine's in the fridge, and still alive, but, I'm not baking a lot cause it's now 30 degrees, sorry, like 105 or something all the time, so Yeah, it was a little bit of a brief madness, the sourdough plague.

[00:37:08]**Mark:** So Boccaccio's book had a big influence on other writers. most importantly, Geoffrey Chaucer, the English writer, in writing his Canterbury tales, which is a kind of similar sort of book, it's a collection of short tales here written mostly in verse, rather than prose with a frame narrative. once again, here in this case, it's a group of pilgrims on their way to the shrine of st. Thomas Becket in Canterbury. Now, though this pilgrimage is not specifically tied to the black death, such a trip would be made to give thanks for recovery from past illness.

[00:37:42] So you can sort of see that it's kind of implied, but never made explicit that there was a connection. but it could also be seen this, trip. this pilgrimage can also be seen as a kind of springtime vacation. the Canterbury tales starts off with a description of spring and everything's growing and everything's nice and people think to go on pilgrimages.

[00:38:04]and, again, this is a turn towards human existence and the frivolous, like we saw in, the Decameron. Now, the plague is not very clearly referenced in any of the tales, but there is one tale that does seem to have a reference to at least plague in general, if not the specifics of the black death.

[00:38:23] And that's in the tale called the Pardoner's Tale in which three, rioters, basically wild, crazy drinking guys, are out reveling in a Tavern during a time of plague -- sound familiar?. they're reveling in sinning, which they really shouldn't be doing during a plague because they're

[00:38:43] **Aven:** likely to die,

[00:38:43] **Moxie:** likely to die.

[00:38:46]**Mark:** So during their reveling in the Tavern, they hear that a friend of theirs was killed by a thief named Death who has also killed a thousand others during this plague. So they decide to get revenge and go in search of death, but they find a hoard of treasure under a tree instead, and forgetting their original purpose, they are overcome by greed and decide to wait with the treasure until nightfall when they will carry it away. But their greed gets the better of them. And, in the end they end up killing each other, so that, you know, each one wants to have all of the treasure and thus they do indeed find death.

[00:39:27]And this story, this story, once again, makes an interesting parallel to people's reactions to the current outbreak: reveling in the face of death, even though it's dangerous, letting personal self-interest get into the way of doing the right thing. does pandemic bring out the worst in people? Do we turn on each other?

[00:39:49] Do we engage in careless behavior?

[00:39:52] **Aven:** That might've been a rhetorical question, but really wasn't Moxie has

[00:39:57] an answer.

[00:39:58] **Moxie:** Yeah, no, all three, all three options on that scan-tron were yes,

[00:40:01] **Mark:** yes.

[00:40:03]**Aven:** Yeah. It also brings out the best in people. It just also brings out the worst in people.

[00:40:07] **Mark:** It seems to me and I particularly like that bit about people going into the taverns and celebrating.

[00:40:13] Yeah.

[00:40:14]**Aven:** Indeed. I mean, at least they didn't know it was contagious in quite the same way. So they had that going for their not being such horrible people.

[00:40:22] **Moxie:** Yeah. They would have been like, well, there's no miasma in the pub.

[00:40:25] **Aven:** Definitely smells great in here. There's no way it smells great in there.

[00:40:29] **Moxie:** There's no way it smelled good in there, no.

[00:40:30] no, it would have smelled yeasty

[00:40:33] **Aven:** at the very best, if you were lucky.

[00:40:35] **Mark:** So there you go. I think those 10 Florentines, a slightly better reaction, just go into a Villa in the countryside and quietly entertain

[00:40:43] **Aven:** yourself in a way both sets of people are, turning it internally, right?

[00:40:47] Like they're doing what is best for them in their own way and that wasn't necessarily harmful in the sense of the Florentines, except for they make their. As I recall, they make their servants go back to the city and get them, their food and things like that. So, yeah.

[00:41:00] **Moxie:** no, it's still parallel all the poor, door dash folks.

[00:41:03] Yep. If you're, if you're still ordering delivery, whether it's Amazon or food or groceries, you tip like your ever loving soul.

[00:41:11] **Aven:** Oh yeah, exactly. Exactly.

[00:41:14] well, so I want to follow up on what you were talking about, Mark with, some more discussion of sort of literary plague, that advances a different kind of model of understanding of the relationship between very literally the body politic and using that metaphor and plague. So of course, my mind always turns to the Romans because it just does.

[00:41:35]and when we look at the Romans, obviously they're inheriting both medical theories and literary background from the Greeks. So they definitely are working with some of the same ideas, but rather than go over those, I want to look at some of the places where there's a, sort of a different understanding of plague.

[00:41:51] And I'll, I'm drawing here from a couple of things, but in particular, from a very recent book called Pestilence and the Body Politic in Latin Literature, which came out right at the end of 2019. And as the reviewer I saw of it said, It's a shame it was published just before, but obviously this book is extremely relevant to anybody teaching in the ancient world right now; by HH Gardener.

[00:42:14]So in that book, she talks about particular examples and she's focused in particular on the late Republic and early. Imperial period. So I'm not going to talk about everything she talks about, but I will say a couple of things. First of all, just the vocabulary of plague. you pointed out, we don't get a lot of English derivatives from those Greek words, but it's from Latin that we get the vast majority of them.

[00:42:32] So the basic words for plague are pestis and related words like Pestilentia, pestilitas. and then morbus, which just means sickness, lues, which is the sort of word for, disease and plague but is connected with flowing, you know, things that, spread from one thing to another and then the word contagium.

[00:42:53] And that's the word I want to kind of focus on because it is a word that brings in another idea about disease that we don't find in the Greek writers, but I'll come back to that in a moment. So pestilence of one sort or another is often paired or contrasted with war. So we have that all the way through plague and war go together.

[00:43:14] Obviously they literally go together, but they are the sort of the main things that can happen to a people that are bad: plague or war. So they can be contrasted because war is human led and plague is natural or sort of uncontrollable or they can be put together, but for the Romans in particular, pestis is commonly invoked in a context of civil wars, of internal wars and internal dissension.

[00:43:38]Now the plague metaphor is very common in Roman literature and also in Roman politics. The usefulness of the plague metaphor in political discourse, really presupposes familiarity with plague as a real experience, right? Either contemporary or recent memory, because if it's going to be an active metaphor, it's important that people sort of have an idea of what plague is.

[00:43:57]Side note. That's what the book says. And she's quite right. But it made me think that we use the metaphors of plague all the time. several generations it's been since. We really have, I mean, of course we have endured things like the AIDS epidemic, but this sort of generalized, idea of play as a part of the world.

[00:44:17]We haven't really had plagues for a couple of generations, but it's clearly enough in our memory. Though I did see the Twitter threads about how we have to retire the expression, "avoid like the plague", because clearly we don't.

[00:44:31] Nope. Doesn't work. Turns out, avoid, like the plague means run towards embracing it, So Rome did have a history of plagues, specifically. It had a history of, of kind of endemic plagues, where it arose within the community. So Rome is built on seven Hills, but the seven Hills surround essentially a Marsh, which eventually was drained to become the central forum.

[00:44:58] But malaria was an ongoing problem in Rome, seasonal illnesses, and then other kinds of things that we can call plague, but we don't know what particular diseases they were. They were not seen as being imported from outside. They were seen as just happening and they happen on a reasonably regular, there was a seasonal cycle, and then it was just sort of an.

[00:45:17]Sometimes there'd be a plague sometimes they wouldn't be. And so the Romans certainly did have experience with it and it was seen as something that could arise within the country for many different reasons. The prevalent sort of humor-based medical theories, the Greek theories. So when I say humor here, of course, I don't mean what we mean by humor, but I mean, the idea that the balance of the body between four different fluids is what keeps you healthy,

[00:45:41] **Mark:** It's nothing to laugh at.

[00:45:42]**Aven:** that those medical theories, which is, were the predominant Greek medical theories, couldn't account for, or respond to plague. Because if a whole bunch of different people get a disease, it can't be about their individual bodily balance being off like it doesn't work, plus you can't fix it by fixing the humors.

[00:46:00] So there, is a surprising lack of writing about plague in our medical Greek texts, because they saw it as something that was, you had to deal with the divine, or you just had to wait it out. You could maybe list the symptoms and talk about trying to deal with the individual symptoms, but they didn't see themselves as being capable, able to cure plague, if you see what I mean, because they, they didn't have a theory that could account for it.

[00:46:23]**Moxie:** I never thought about how the humoral theory

[00:46:25] it

[00:46:25] would not hold up during a time of, of,

[00:46:30] **Aven:** of a widespread disease. Yeah. In other words. So yeah,

[00:46:33] **Moxie:** it must've come from the gods because our medicine says things only happen on a person by person basis.

[00:46:39] **Aven:** Basically.

[00:46:39] I mean, of course you had the paired miasma model, which we kind of alluded to before the miasma model of the bad air. So that was sort of one way. So the only way that the doctors could account for, or deal with plague was to say, like remove yourself from places of bad air. Basically they could try to make the air better, but, That's so we do have writing about it in Airs Waters Places, for instance, where they talk about certain places being susceptible to plague, because those places are bad, but they didn't have the trends.

[00:47:08] As you say, they don't know the germ theory. Right? So there they discussed what places were unhealthy and how to mitigate bad odors. But that is as far as they really went. The one element of humors that could sort of interact with plague was the ethnically based understanding of humors that certain peoples were by nature, dry or moist or hot or cold like that.

[00:47:31] And then we do see that in the ethnography of Airs Waters Places, which is a medical text. So if a certain area, you know, happened to be getting plagues on a fairly regular basis, you could say that all the people would, they'd have similar constitutions. So they might respond to plagues in a somewhat uniform way.

[00:47:50] So there's an overlap there, but again, there's not very much you can do as a physician. If the constitution of a people is such that they get a plague, right. There's not much you can do about that. Now, outside of medical theory, there was some awareness of transmissibility, specifically Thucydides.

[00:48:05] People always point to the fact that Thucydides who writes about the plague of Athens during the Peloponnesian war talks about how those who, took care of the sick got sick. And those like doctors who went from sick person to sick person were the most likely to catch it. So he shows an awareness that being in contact with people who were sick was likely to leave you being sick, but it doesn't get theorized as a, as a sort of generalizable idea. However, when we come to Latin literature, there emerges this terminology of transmission through touch, through proximity or touch, and that's where the word contagium comes up or contagium. And Mark, you have a little bit about where the origin of that word.

[00:48:47] **Mark:** Yeah, it's very simple.

[00:48:48]I mean, so contagion first appears in English in the late 14th century unsurprisingly right around the time of the black death, in the sense of a communicable disease or a harmful or corrupting influence, not necessarily plague in the literal sense. it came, from old French, in part from old French and in part directly from that Latin word, contagio, a touching, contact.

[00:49:13]It was often used, though not necessarily always, but often used in in a bad sense. So contact with something physically or morally unclean, And that word comes from the verb contingere, to touch, which has an assimilated form of the, prefix com- meaning with or together. Plus, the verb tangere, which means to touch, which itself comes from the proto Indo European root \*tag-, meaning to touch or handle.

[00:49:39] And I think I find that very appropriate that the root is tag. I just love that. the past participle of that, of that word, contingere, is contactus. And from that we get the English word contact. So they're related. we also get the word contaminate from this same root. So contaminate, which first appears in the 15th century comes from, the same ultimate sources, contagion or contagious and, contact, that base \*tag-.

[00:50:07]And it was also, it also formed the basis of the compound Latin noun \*contagmen, which is not actually attested, but it's a reconstructed form. It must have existed at some point as contagmen, meaning contact or pollution, which then became altered to contamen. And from that, this developed the verb contaminare whose past participle gave us contaminate.

[00:50:35] So these two words are basically the same word, right? so again, one has to ask the question, why is plague figured in terms of contact?

[00:50:46] **Aven:** Right? So. We don't really see a major development in the medical theories around plague as transmitted through contact. But we do see that that becomes a major if not the major metaphor by which the Roman writers talk about plague.

[00:51:02] So they aren't, I'm not talking now about medical writers, but just generalized people. And in particular, in politics, they use the vocabulary of contagium both for plague and for the spread of socially acquired habits, bad habits, usually, I don't think they ever talk about the contagium of, you know, picking up and cleaning your room or something. so physical sickness and moral corruption become sort of entangled in narratives of contagion. You spread moral corruption, you spread physical illness in similar ways, and this becomes the standard metaphor. So. because of, they have this idea of endemic illness where it isn't somebody, it's not that they have contagion as the idea of somebody coming in from outside and spreading, like the typhoid Mary kind of idea.

[00:51:47] But instead that, that someone within the citizen body like a part of the citizen body, and there's a real reason for calling it, the citizen body, like a part of it becomes infected and spreads that throughout the citizen body. And if you don't deal with it, You are left with, unrest and civil unrest and maybe civil war. As civil Wars began to recur in the late Republic.

[00:52:09] So from about 100 BC down to well, 30 BC, we have minimum, well we have the social war before that. So let's say from one 10 to 30, we have one, two, three, four, Five, let's go with five things that could be called civil Wars within the Roman state. And the metaphor becomes more and more apt. This idea of recurring illness that comes up and it's sort of spread through the citizen body.

[00:52:38] So we see it in things like Cicero's speeches about Catiline, which is not counted in that five because it was a foiled plot, but Catiline was accused of planning a coup and Cicero calls him a pestis who breathes out sickness. So he's a pestilence who breathes out sickness and it's in the same speeches as he frequently talks about how Catiline spreads, the moral degeneracy that leads to debt.

[00:52:59] And that makes the young men around him susceptible to talk of, of uprisings because he spreads this moral degeneracy. He spreads this plague and it leads to potential civil war. Much later after this period, but in talking about this period, Lucan, a poe, I mentioned, he's writing in the second century CE, but he wrote about the civil war between Pompey and Caesar, the most famous of the civil Wars that we've talked about at this point.

[00:53:23] And he repeatedly compares it to a pestilence, like all the way through there's this ongoing sort of metaphor of pestilence. And he very closely connects it to the moral, the moral plague of greed that made the people ready to follow Pompey. So Pompey and Caesar themselves are not so much diseased as mad with power.

[00:53:42] And they're just horrible people. This is a poem without a hero. Everybody in it is awful. but the reason the people are ready to follow them is because they've been contaminated with greed the contagion of grief, which came about in the late Republic after, and here, we do have a little bit of the outside influence, after empire brings in so much luxury that it makes everybody.

[00:54:03]become greedy. They get too soft and then become greedy. And then they're ready for civil war. And in particular, there's an episode in his Epic, when the main armies of Caesar and Pompey are beginning to fight, are preparing to fight and Caesar's besieging Pompey's army inside of a camp and an actual plague breaks out in Pompey's camp.

[00:54:19]first in the horses who are mentioned as having been fed on imported hay, which possibly suggests Lucan was always suggesting things at lots of levels, but probably suggests in part Pompey's reliance on Eastern wealth and allies. So he's, you know, he's relying on outside support and that causes sickness, but then it spreads to the soldiers and there's this, I'm not going to read it, but there's this very gory, everything is gory in Lucan, everything is gory and extreme and it's all about bodies wasting away and melting into the ground and causing the illness to spread through the whole camp.

[00:54:52]it's ended when they final, it was sort of sparked by a famine and ended when they get relief of their famine. But it, it acts like a miniature version of the whole Epic and story. And the plague symbolizes the disease of civil dissension that has gripped Rome's citizen body.

[00:55:07] Right. And I think what's interesting here is that in the Republic in particular, and even later in the imagination of Romans under the empire. So even once they have emperors, who are the leaders. In the sort of literary imagination of at least and political imagination of the Romans plague is not actually a reflection of the leadership of the state, but of the moral qualities of the citizen body itself, a body that was always vulnerable to being touched and contaminated by bad ideas by vices or by imported problems.

[00:55:38] So they can come from within, but they can come from outside and of course they could always be divinely. the, the, the standard reaction to plague was some sort of divine intercession trying to, you know, sacrifices, or very often they'd come up with a new form of sacrifice. the theater games were imported in as a response to a plague.

[00:55:57] For instance, a new temples to Apollo Apollo was imported to Rome as a response to one of the plagues. Aesculapius the God of healing was imported to Rome. And when I say imported, I mean, they literally bring a statue of him from another shrine and then build a shrine for him. They import him to Rome, in response to a plague.

[00:56:13] So there are divine responses, but There is a sort of a duty of every citizen to watch out for the kind of corruption that can lead to plague, but also the kind of corruption that can lead to civil war. Those are the same in some ways. So I think it's interesting to look at the two models, the model of the leader and of the citizen body, when we look at our reaction to plague today, because everything you said about how we think about leadership is absolutely true.

[00:56:40] But I also think both, that both models have been activated because we definitely also have, narratives of people and their individual reactions and the reaction of like, what American reactions are ,not leadership, or Canadian reactions or Swedish reactions of British reactions, or, you know, Chinese and Korean, then there's narratives, however, incorrect and sometimes profoundly racist some of those reactions are about the national qualities of a people or whether they are more likely to follow authority or not, or, and then the talking about, you know, what you were talking about towards the end there about like people going out into the pubs or whatever, A sort of a vulnerability to disease that comes from the moral qualities of the citizenry.

[00:57:21] And I think, I think we're seeng these models in different places and different segments of society, different, you know, some people are blaming leaders, some people are blaming their neighbors for making the wrong choices. People are acting as if it's an individual responsibility And then of course we do have the model of it's all a foreign influence.

[00:57:39] It's, you know, the blaming of the, of the foreign contamination and all of those things also suggest different societal remedies, if it's leadership or if it's moral qualities of the citizen body, what we do about it is different. And I think we're seeing that too, because we're seeing many different kinds of, solutions suggested.

[00:57:59]**Mark:** So we're, we're being punished for our globalized airplane. Fly everywhere culture.

[00:58:05] **Aven:** Well, I mean, as I say, I've seen, I've seen many narratives, different ones and they don't all, you know, they don't always go together. Sometimes they're in contrast and sometimes they, they mesh. So, anyway, I just thought that was an interesting, you could say that the Roman idea is a more democratic idea, which is kind of funny because Rome is in no way really democratic, but that responsibility on this sort of citizenry is a part of it too.

[00:58:31]**Moxie:** And I reckon we're being punished for a lot of things.

[00:58:35]**Aven:** Yeah. So it's an interesting thing to think about because I do think that like, obviously the virus is a virus and our stories, we don't tell about it don't change what it is, but they do change how we react.

[00:58:48] You know, the reactions that we make and what choices we're willing to make or not willing to make, do come about from what stories we tell ourselves about how plague works and what it means.

[00:58:59]**Mark:** And it's interesting. It's kind of like, you know, plague as a meme as well as the physical yeah, you know, contamination, which brings us back nicely to our psychogenic .

[00:59:12] **Aven:** Yeah, because it's not only about what physical transmission there is. It's about how you're thinking about the world. So Moxie, as we continue on this sort of down note, would you like to tell us more about, mental contamination?

[00:59:26]**Moxie:** Yeah, pour yourself a stiff drink listener unless you're driving in which case wait till you get home or work out depending.

[00:59:33]this was one that I actually found in my research when looking up the two that I was familiar with and I found this utterly, utterly fascinating. And unlike most mass psychogenic illness, this is actually many, many separate incidents. It's not a matter of. like the laughing plague of Tanganika, where one girl started just laughing hysterically in class and then other classmates started laughing and then other kids in other classes and kids and other schools that they were exposed to.

[01:00:00] This is called resignation syndrome or, traumatic withdrawal syndrome. Or, and I'm going to go for the Swedish here: uppgivenhetssyndrom. I always do it in German, it always comes out German, no matter what I do. And this is an incredibly specific form of mass psychogenic illness. It affects the children of refugees in Sweden who are not going to be able to stay in the country.

[01:00:25] Hm. So their security there is now threatened and these children will go into some degree of a catatonic state. They just withdraw. And it's not just that they're being quiet today and didn't eat their dinner. There's one young lady they talk about in a BBC article who's had a feeding tube for two years.

[01:00:49] Wow. Because she's basically just inert and her, her family has to care for her as if she were in a vegetative state. and the resignation syndrome is not very well understood because it is such a rare thing, because again, it only happens in Sweden. It hasn't been documented anywhere else.

[01:01:10]And only the children of refugees whose safety, of being able to stay in Sweden is then threatened. So we're not talking about like a lot, a lot of people. So it makes it very hard to study this. There is some hope to it though. There has been one method of treatment, which has provided some benefit, which was actually to remove the children from their parents' home, which doesn't normally sound like it would be a positive thing, particularly when we're talking about people of different ethnic backgrounds in a foreign country. See my episode about, the, the Indian schools and the Aborigine programs, but

[01:01:46] **Aven:** residential schools in Canada is the term we use. Yeah.

[01:01:49]**Moxie:** Yes. Yes. I was talking to folks on a Canadian show and, and one of the hosts mothers had gone to residential school and like, wow, it's that recently, huh? but, it is a residential program, but it is a medically minded one. They're not being snatched by the state or anything. And the thought is that taking the children away from that worry of what's going to happen to my family. What's going to happen to my parents. Are we going to be separated and things like that and trying to create an otherwise normal life for them in the residential program of, you know, we're going to get up at this time of the day and put on our clothes and have our breakfast.

[01:02:28] And even the children who are entirely unresponsive, you know, they, they get them dressed and, they'll give them little treats like a little, straw full of Coca-Cola, even for the kids who are on a feeding tube and they'll play music and games and stuff. And they have found that some of the children actually do come around.

[01:02:46]Families had been able to stay in the country because the children were sick, but after a few years, that policy was reversed. So now the parents had two things to worry about. Now they have a catatonic child and they don't know where to go. So I don't have like a really great wrap up of, of this situation because it's still ongoing and it's just so poorly known.

[01:03:09] Cause we're talking about less than a few hundred children total,

[01:03:13]**Aven:** still

[01:03:14] **Moxie:** the fact that it's so utterly fascinating

[01:03:16] **Aven:** that there's even as many as a hundred or more children in this situation is appalling. Yeah. Yeah. I did not know about that either. I mean, mean, I'd like to say it's shocking, but there's too many elements, elements of it that are not completely shocking, but still that is

[01:03:32] **Moxie:** a strangely unique and isolated response because there are refugees everywhere

[01:03:38] **Aven:** and there are people going through uncertainty and whose kids are going through uncertainty in all sorts of different ways.

[01:03:43] Yeah.

[01:03:44] **Moxie:** Yeah. But only in Sweden, of course, every refugee child, but only in Sweden, do they end up. In these, these diminished or catatonic States and no one knows why. Cause every fact sounds better if you add with "and science doesn't know why",

[01:03:59] **Aven:** and it's still a mystery to science. Yeah. Oh, that is fascinating.

[01:04:04] **Mark:** Fascinating and grim.

[01:04:05] **Aven:** Yeah, but I mean, we did put plague right in the title

[01:04:10] **Mark:** it's going to

[01:04:10] **Moxie:** get grim. And like I said, there was that residential treatment facility that is showing some promise.

[01:04:15] **Aven:** Yeah, that's good. That's good. But yeah, it's when, one imagines that, taking away the uncertainty would be a big step for some of these people, but apparently that's too much for a government.

[01:04:24]Not, I'm not specifically singling out Sweden there. I'm sure we've done. You know, every country has it's dark history in terms of,

[01:04:32] **Moxie:** yeah, no, nobody's getting out of this.

[01:04:33] **Aven:** Yeah.

[01:04:34] **Moxie:** Looking like, like a saint, like an angel.

[01:04:37]**Aven:** Alright, Mark. Cheer us up with some etymological facts.

[01:04:40]**Mark:** Well, As I mentioned, before there was a bunch of words that come into English as a result of the black death outbreak in the middle of the 14th century,

[01:04:50] **Aven:** I said cheer us up, not talk about black death again,

[01:04:52] **Mark:** I'm afraid this will get grim, but also with a happy ending.

[01:04:55] **Moxie:** I'm sorry, the black death doesn't make you happy?

[01:04:58] I always feel happy when we're talking about the black death.

[01:05:00] Did you know you can catch bubonic plague from Prairie dogs?

[01:05:03] **Aven:** Yes, I did. I did. Our younger son went through a phase of being certain that he was going to get the bubonic plague because of some YouTube videos on that very topic. Just for the record. There are no Prairie dogs in Northern Ontario, like, we're okay.

[01:05:19] Yeah.

[01:05:20] **Moxie:** It's like son, you're 1500 miles from the nearest Prairie dog.

[01:05:25]**Aven:** I swear you're ok!

[01:05:25] **Mark:** So the words, plague and pestilence themselves only come into English after, the black death. so let's then look at some pre black death etymologies first, one of which is simply the word death, which comes from old English death.

[01:05:40]basically almost sounds the same, and it could be used not only generally to mean death as we would now, but also in a specific sense, of a widespread mortality due to plague. and it comes from the proto indo European root \*dheu- , which means to die. So, I mean, this word is pretty stable. it is also the source of words, like dead die and dwindle.

[01:06:04]and it's also related to, the Latin word funus, which means funeral. And from which we get the English word funeral. Now we can see this, this kind of use of the word death, even still in phrases like black death. which just,

[01:06:18] **Aven:** yeah, I guess I never really thought about the fact that that clearly means more than just like a person.

[01:06:23] **Mark:** It means the black plague and that's another possible phrase, black plague. and it is interesting that we use, Black death or black plague to refer specifically to that 14th century outbreak, since, they were not originally used in reference to that outbreak, in the 14th century, they were, it's a later occurrence.

[01:06:41]it first appears in, the 18th and 17th century respectively. So the 18th century for black death and 17th century for black plague. So they were originally referring to later outbreaks of the same bacteria. but not that particular instance, another word that could be used to refer to plague is the word starve, which is you know, kind of related our modern sense of the word starve but the sense has changed. So starve as a noun, in Old English appears as steorfa and it could be used to mean plague, As a verb starve or in old English, steorfan means to die more generally. it only later narrowed to the specific sense of, to die through lack of food, but it was originally just a general word that meant to die.

[01:07:27]and it goes back ultimately to the proto indo European root \*ster- , which means stiff. So the sense transition here is from the sense of to become rigid and therefore die. it's also the source of words, such as starch, which makes things stiff, stark, as in, Stark

[01:07:45] naked, but also, I don't know why that was the first one that popped in my mind, but, like a

[01:07:51] **Moxie:** You're either gonna think stark, naked or Ironman.

[01:07:54] **Aven:** Yeah, that's right. They can go together, frankly,

[01:08:00] **Mark:** also stork because of the sort of stiff way that storks walk, and strut for similar reasons. When you strut you're kind of moving stiffly

[01:08:09]Another possible older word for plague is manqualm, which I love this word or just qualm on its own.

[01:08:17] So again,

[01:08:18] **Aven:** No, manqualm is definitely better. Yeah. I have a lot of manqualms.

[01:08:23] **Mark:** This word obviously has shifted in sense, since its original meaning. so in old English manncwealm meant, Mortality plague or pestilence. it's literally man, plus qualm. those, those words are exactly the same. so in old English, man could be used more generally to refer to a person not specifying gender. And it ultimately comes from the proto indo European root \*men- , which means to think, or the mind or spiritual activity. So a human, in other words, And, the, the second element cwealm , meant death disaster, or plague .It's related to the old English verb cwellan from which we get modern word quell, which in old English meant to kill.

[01:09:08] And it's also slightly more distantly related to the word kill. So, ultimately it goes back to the proto into European root \*gwelə- which means to throw, reach, or pierce. So manqualm, literally means like human, human death, person death. But I think we can feel free to use the word .

[01:09:28] **Aven:** I'm totally using manqualm. I'm going to be having man qualms from here to the end of time, I tell ya,

[01:09:33] **Moxie:** Yeah, I'm on my second husband. Team man qualm.

[01:09:38]**Mark:** Now post black death. We get a bunch of words coming in. Including. So you mentioned those, those Latin words, pestilence or pestilentia, and pest also from that same Latin word. So pestilence and pest could both be used to refer specifically to plague. and they came into English from French in the late 14th century.

[01:10:00] So just, after, the black death and pest, I think, gains that sense of referring to plague in the late 15th century. So just a little bit later. Originally, they come from Latin pestilentia, which meant plague or pestilence, which itself comes from pestis the other word that you mentioned, which is on its own just means plague and pestilence.

[01:10:21]Now the origin of this word is unknown. So we don't have a clear sense of where pestis comes from. but I have mentioned it before, in, earlier in the podcast, remember that the scientific name for, the plague bacterium, pestis. So that's the scientific name, pestis there. Another pair of words, that come into English just following the black death: first of all, mortality, that comes in, the early 15th century. And it could be used to specifically refer to plague. It came into English, through French, from Latin mors, death, ultimately from the proto indo European root \*mer- , which meant to rub away or harm, which is also the source of the word nightmare.

[01:11:08]so whole bunch of Latin dying words come from this as well.

[01:11:12] **Aven:** Latin has a lot of dying words just for the record. Very good at dying words. Killing words, actually, maybe more than dying words, but we got you covered. So

[01:11:21] **Mark:** you mentioned, I think morbid

[01:11:22] **Aven:** morbus. Yeah. Yeah.

[01:11:25]**Mark:** also the Latin verb,mori, morior, mori, which means to die, which passed through French, eventually producing the English word murrain.

[01:11:35] Which is was used to refer to a disease or plague in the late 14th

[01:11:38] **Aven:** century

[01:11:38] with a U? Not moraine, the hill caused by receding glaciers, famed to every grade seven geography class.

[01:11:48] **Moxie:** That's exactly what the first thing I thought when I heard that word. Yes. That's a new piece of my vocabulary.

[01:11:55]**Mark:** Yeah. It was common enough at the time to refer to plague. it's now rare and when it is used, it's used mostly of animals. So you talk about a murrain affecting, you know, cattle or something like that, but it used to be used, of people as well. So those all came in, kind of as a result of the black death.

[01:12:13]Another word that came into English around that same time is the word plague itself. So plague, It was not used to refer to an epidemic anyways until the late 15th century. it first enters English in the sense of affliction, calamity, evil scourge, coincidentally, I suppose around that time, late 14th century, but it doesn't have the disease sense until a bit later.

[01:12:40]it comes through old French from, a Vulgate Latin word, plaga, which meant pestilence. So in, in the Vulgate Latin version of the Bible, the word plaga was used specifically to refer to pestilence in the Bible. that in turn did come from a classical Latin word plaga, but that had a different kind of a different meaning, more related to it's the original sense of the root, plaga meant blow strike wound.

[01:13:07] **Aven:** And that's how I know it. Yeah.

[01:13:08] **Mark:** Yeah. From the verb, plangere which means to strike or beat ultimately from, the proto indo European route \*plak- to strike. So a plague is something that strikes. that's how that, that kind of comes about now, the black death, is commonly said this, I think people are quite familiar with at least the basics of this.

[01:13:29]it was brought to Europe in the fleas, which lived on the rats in the ships, due to trade from Asia. And like the ancients, as we've kind of mentioned before, they didn't have a germ theory of disease in the middle ages. they did, I guess, have a somewhat more scientific theory that was already kind of coming up in Galen I guess it's towards the end of the ancient world. this miasma theory that we keep mentioning the idea being that disease was spread by bad air. Hence malaria, literally bad air. but that's, that's the best that they had scientifically, And that's why we have that image of those plague doctors with the strange beak shaped masks, those beak shaped masks contain various aromatic materials like herbs and so forth to sort of block out that bad air, supposedly keeping them safe from the disease.

[01:14:25] **Aven:** And it's very important to talk about when...

[01:14:28] **Mark:** that, this is not medieval. It is a response to that same bacteria, most likely, but, not the 14th century outbreak. It doesn't occur really until the 17th century, so early modern. so that's one of these, myths about the middle ages that these plague doctors were medieval.

[01:14:45] **Aven:** We have a good friend who would disown you if you didn'tpointthatout.

[01:14:49] **Mark:** So those masks anyways, plague doctors in that form is specifically a 17th century and later thing. Now as we've seen the plague may have been, an initiating factor for kicking off the Renaissance when it arrived in Italy.

[01:15:04]And indeed it had a profound demographic effect on Europe as well. it killed something like 40 to 50% of the people in Europe, which is staggering number, and. One of the consequences of this is that it created a huge labor shortage.

[01:15:21] Now this is sometimes somewhat inaccurately said to have ended feudalism, and there are a bunch of problems with, with this statement. So first of all, feudalism, doesn't refer to the relationship between peasants and landowners. so. That relationship is more properly called manorialism. Feudalism is the sort of aristocratic military relationship among the nobility.

[01:15:45]So it didn't end feudalism. It ended manorialism is more accurate to say, Also, the effects of the black death varied widely, depending on where you're talking about in Europe. so in some places it caused, say rampant inflation, in other places it had different effects. So when we're talking about this particular effect on manorialism, this is specific to certain places, particularly England.

[01:16:13]So when we say. The black death ended Manorialism. It ended manorialism in England and maybe a few other places, but not all of Europe. Certainly that system of land tenure continued, for, quite a while in many other places. And in some places it actually started that system of land tenure. So their reaction was completely the opposite.

[01:16:35]Also, it should be noted that the decline in that manorialism system, was already underway before the black death. So it was more of a nail in the coffin kind of thing.

[01:16:45] **Aven:** A lot of nails and a lot of coffins. Yeah,

[01:16:47] **Mark:** sure. Yeah. What a metaphor to use,

[01:16:50] **Moxie:** if you could afford one,

[01:16:51] **Aven:** if you were very lucky, you got a coffin.

[01:16:53] **Moxie:** If there was anyone left in the village to build one

[01:16:56] **Aven:** that's right.

[01:16:57]**Mark:** So what we can say, however, is that this labo shortage in England led to an increase in wages amongst the laboring classes. The food was also better, because there were, since there were fewer people, they still had the same resources, but fewer people to share it out amongst

[01:17:14] **Aven:** Though presumably the lack of labor did mean shortages or less food was being grown

[01:17:20] **Mark:** well grown. Yes. However, animal husbandry, there was a big boom in animal husbandry after the black death, because it's more labor efficient, you just need like a shepherd or whatever to

[01:17:33] watch the,

[01:17:34] grain is labor intensive.

[01:17:37] So, they were eating more meat. Hmm. and you know, that's a better food source, nutritionally speaking. of course, the land owning class, try to push back, on these new found, you know, benefits going to the laboring class. They introduced legislation to try and return to pre plague, wages.

[01:17:58]they try to enforce stricter rules about the freedoms of the laboring class, like the ability to move and go work somewhere else. and they try to, even pass sumptuary laws, which restricted how these now richer lower classes could spend that money.

[01:18:15] It's all very well for them to have it, but you can't use it to buy anything you want, for instance, fancy clothing or better food or whatever. So they tried to restrict that, but, you know, ultimately the cat was out of the bag, and it meant that there is this disparity between. the sort of average wage for labor in Northern Europe and in more Southern parts of Europe, in the centuries following.

[01:18:40] So particularly in England, labor was relatively more expensive and because labor was relatively more expensive in England, there was therefore an incentive to develop things like labor, saving agricultural technologies. And so instead of, for the sort of wealthier people, instead of spending your money paying for these very expensive workers, you could say, well, maybe I can take that capital, that money in the sort of, one of the things that kicks off capitalism and use that to invest in technology that will obviate the need for that expensive labor.

[01:19:15]and this may have been one of the factors that sparked the industrial revolution, which is more of a feature in England than anywhere else in Europe. So it actually is quite appropriate then that we're when we were saying, talking about the effect of the black death, that it's particularly England, we're focusing on.

[01:19:32]Now the technological boom of the industrial revolution, led to a boom in manufacturing, which by the way, ironically made higher material standards of living more attainable for lower classes, the opposite consequence of those sumptuary laws. but this manufacturing boon also led to urbanization with population leaving the countryside for factory work in the cities. At the beginning of the 19th century, one fifth of the population lived in cities; by the end of the 19th century in England, in England. Yeah, by the end of the 19th century, more than three quarters did, that's a rapid and radical, radical shift in demographics. And with the dense city populations, this made the outbreak of disease a much bigger problem, a much bigger danger.

[01:20:26] So for instance, there were cholera outbreaks that became a real problem in the 19th century. Cholera, by the way, is an infection of the small intestines, so it's caused by this, bacterium, Vibrio cholera. Or cholerae, sorry. which can lead to severe dehydration, therefore death. Cholera isn't passed really person to person, but through the water supply through water that has become contaminated by human wastewater.

[01:20:54]The natural habitat for that bacterium Vibrio cholerae is in brackish water, where it attaches itself to shells of certain types of Marine life, in particular plankton. plankton can act as a sort of natural reservoir for this bacterium. so this term natural reservoirs is, basically, kind of like a host that doesn't suffer from the infection itself, but can store it up and therefore,

[01:21:22] **Aven:** Transmit

[01:21:22] **Mark:** transmit it.

[01:21:23] So it's like those fleas on the rats, which were the vector for, the black death. it's like, What we're worried about today, bats and possibly pangolins , They're trying to work this out exactly what the

[01:21:35] **Aven:** Bats definitely are, do act as reservoirs for a number of corona viruses and other viruses.

[01:21:40] **Mark:** Yeah. So this is currently what a lot of researchers are kind of looking at. Try to understand

[01:21:46] **Aven:** zoonotic.

[01:21:47]**Mark:** Diseases

[01:21:49] **Moxie:** circle right back around.

[01:21:50] **Mark:** I told you that word would come back. There it is. So the zoonotic diseases that are a problem for us today, we have to look very carefully at what animals are maybe, harboring them.

[01:22:00]but in the 19th century, the doctors still basically didn't have anything better than that old miasma theory. Germ theories were beginning to be proposed around this time, but they weren't generally accepted. So, you know, city officials and so forth were not thinking along those lines. and indeed when there were cholera outbreaks, they tried to control them by using strong smelling substances, like pitch.

[01:22:24] And they would like burn stuff to create, air that masked the, the miasma. But there was one physician, named John Snow who produced evidence that the cholera outbreak that happened in Broad Street, in the Soho district of London in the year 1854 was caused by germs in the water supply. He did this by tracking and mapping out the locations of those who were succumbing to the disease, and then removing the handle from the Broad Street pump, forcing people to draw water from a noninfected source and then tracking the change. And this was the very first, epidemiology. This was the very beginning of that field, which today is so important in controlling the current COVID pandemic and hopefully finding a cure for us.

[01:23:13]So in a funny sort of way, you could say that the black death, which increased wages triggering the industrial revolution, causing the overcrowded urban environments in England, where a cholera outbreak happened, which was studied by John Snow kicked off the field of epidemiology and is now working to protect us from our current plague.

[01:23:33] So we have the black death to thank for, our hopeful rescue, from our, our current plague. Oh, and as for that plankton, the word plankton was coined in 1887 by German physiologist and zoologist, Victor Henson from the Greek word plagtos meaning wandering or roaming, which comes from the verb plazein, meaning to drive away, turn aside, which comes from the root \*plak- to strike, which lies behind the word plague, as I said earlier,

[01:24:04]**Moxie:** I was hoping I could bust out John Snow and the Broad Street pump, but

[01:24:07] Nope, gotta get up pretty early in the morning to get ahead of you guys. Yeah. Other doctors were not onboard with his, with his theory and most of London was just cholera waiting to happen. I mean, you want to talk about brackish water full of bivalves and human waste.

[01:24:22] I believe we call that the Thames but he was able to show not only that just the people around the Broad Street pump were getting sick, but there were some people who lived in other areas who got their water from the Broad Street pump, had it brought to them. And that the, like this, just this one house that was normally served by another pump. The people were getting sick because they had water in jars from broad street.

[01:24:46] **Aven:** Yeah. Yeah. And it's amazing

[01:24:49] **Mark:** how much resistance he faced. He, you know, he had this, this, you know, really good evidence and no one wanted to believe it. And for a long time afterwards, people were still denying it.

[01:24:59] **Aven:** I don't understand that. Mark. The idea that people would deny good medical evidence about how things work in the face of essentially incontrovertible proof, it seems completely bizarre. I mean, it's a good thing that we, as a society have moved so far beyond such things.

[01:25:15]**Moxie:**  Absolutely moved past that. And yeah, it's like, well, like the, the maternity hospital, there were two maternity hospitals in town.

[01:25:22] One run by midwives and one run by doctors. The mortality rate in the hospital run by doctors was so high that women would give birth in the street rather than let themselves be dragged into that maternity hospital and the doctor who was advocating for doctors to, you know, here's an idea, change your apron and wash your hands between an autopsy and a delivery.

[01:25:42]his colleagues were like, well, there's no way I'm spreading disease. I'm a doctor. I help people. It's like, Nope. So it took, it actually took someone accidentally cutting themselves during an autopsy and subsequently dying of infection to kind of get any of the doctors to be like, okay,

[01:25:59] **Aven:** I'll listen to you.

[01:25:59] There's something to this. Yeah. Yeah.

[01:26:02]**Moxie:** Germ theory had just huge hurdles to get over. It was really surprisingly hard to get the medical establishment.

[01:26:10] **Aven:** And it's interesting. When we look back at things like what I'm talking about with the Roman metaphor of plague as a contagion, like It's not like people hadn't observed. There's a reason why even during the black death, people would quarantine and leave the city. It's not like there wasn't empirical understanding that you could get it from being near somebody who was sick and yet sort of taking the leap from that to actually thinking about the mechanic mechanism of transmission, just.

[01:26:38] Nobody wanted, well, not nobody Western European medicine. I can't speak for other medicines. Just, were not ready to see that.

[01:26:45] **Mark:** I think there were other places that dumped miasma theory earlier than it hung out in England, long time in England. But I think it was dumped in, in Asia earlier.

[01:26:56]**Moxie:** Yeah. And I'm going to assume in the middle East, since they were, you know,

[01:26:58]**Aven:** smarter about a lot of this.

[01:27:01]Yeah, though. They were surprisingly influenced by Aristotle too. And Aristotle lies at the root of an awful lot of mistakes. So who

[01:27:09] **Moxie:** knows? Ya gotta to take the bad with

[01:27:10] **Aven:** the good, yeah.

[01:27:12]All right. Well, let's turn our minds to something maybe a little more, I don't know, uplifting is not quite the right word, but a slightly lighter. And, end on a surreal note, Moxie, would you like to tell us about what I have in my notes down as meowing nuns?

[01:27:30] **Moxie:** Yeah, this one also has really good timing, at least on my end of things. Because two days ago we got a brand new kitten and he is adorable and perfect and wonderful, a tiny, tiny, tiny little ginger Tabby.

[01:27:43] And I would have him. I would have him Meow into the mic, but he he's asleep right now. And it's, you know, 15 minutes of Ram, 15 minutes of rampage and two hours of

[01:27:51] **Aven:** coma,

[01:27:52] **Moxie:** the life of a kitten. But, yes. So it came to pass in Germany in the 15th century that a nun during services began to Meow and she began to meow for hours. And other nuns started meowing.

[01:28:12]This went on for so long. And spread so widely that effectively the militia was called in to quell it. Soldiers were sent with orders to beat the nuns if they wouldn't stop. So think of the devotion level of the average person in that era and being ordered to go and beat. Nuns who are, when you walk in loudly Meowng into one another's faces and you're like, I will risk eternal damnation rather than listen to another minute of this.

[01:28:49] This is freaky. This is terrible. but this may have come from a, one of the hypothetical causes of mass psychogenic illness that we touched on earlier, which is stress, particularly when you have lots of people under the same kind of stress, because many women who were in convents were not there because they were especially devout.

[01:29:14] They were there because their families were poor and couldn't provide for them. So. Okay. Well it's free room and board over in the nunnery, you know, or. They refuse to marry, or they were, insolent or, you know, in any way inconvenient, get thee to a nunnery. So it's prison with worse clothes, if you ask me, cause at least in prison, you get to wear pants.

[01:29:38] So you, you have all of these young women who are forced into this life that they, they did not choose where life is pretty harsh because you are meant to be poor and you are meant to labor and you are meant to suffer to a degree and physical punishments were not uncommon. And no one knows what set this off.

[01:30:01] We don't know what set off any of them really, but, but so bizarre for someone to just start meowing, just meowing in the other nuns faces, and then the other nuns start doing it. And then they have to call the militia. And that's when things get out of hand. But thankfully the militia didn't actually have to, beat the devil out of the girls.

[01:30:23] That, that was actually one of the main concerns. I, I buried the lede a little bit there because cats have that reputation of being, witch's familiars and closely associated with the devil. So it's not only that they were being weird, but they were being weird in a way that people could kind of easily wall of red string to Satan, right? So, you know, Oh, well, cats are wicked. So this must be extra, extra bad, call in the soldiers with the sticks. But thankfully the nuns did stop under the threat of violence and did not actually have to be beaten to get them to stop. So. There's there's, there's a, there's a positive note to end on. No nun beating!

[01:31:01] **Aven:** I mean, every, every story that ends without a beaten nun is a happy story. Right?

[01:31:06]**Moxie:** It's what I've always said.

[01:31:08] **Aven:** You know, I'd heard, I'd heard vaguely of this before, but I didn't know the details of it. And that, yeah, that is just bizarre.

[01:31:15] **Mark:** This just reminds me of that doctor who episode with the cat nuns.

[01:31:20] **Aven:** Oh, the cat face nuns. Yeah, the

[01:31:22] **Mark:** cat

[01:31:23] **Aven:** people. Nuns. Yeah. but they never me out. It's very disappointing. It could have been a great historical hidden historical allusion, but no it's just

[01:31:31]**Moxie:** Well, that's just a missed opportunity

[01:31:32] **Aven:** right there.

[01:31:33] Absolutely.

[01:31:34] **Moxie:** Speaking of Doctor Who, I also have a dog named Stormaggedon, just going to drop

[01:31:38] that.

[01:31:39] **Aven:** Oh! Very good. Very good. All right. Well, I think that's a good note to end on. I think we have. We've by no means exhausted all elements of the plague. We can talk forever and ever. There's so much to say, but I think we've taken a good number of different, different angles on it. so tell us one more time, Moxie the name of your book, the name of your podcast.

[01:32:03] That'll be quick. Cause they're the same.

[01:32:07] **Moxie:** Well, you think that! The podcast is called Your Brain on Facts. For some reason, my publisher let me name the book, Your Brain on Facts: Things you didn't know, things you thought you knew and things you never knew you never knew. That is the full title. It takes up half of the front cover. Though I have to absolutely not even humblebrag. This is an outright brag that on the front cover is a blurb from Mangesh Hattikudur one of the cofounders of Mental Floss.

[01:32:34]And the publishing company, his nickname is mango. The publishing company is mango publishing, and I put out to the world, Hey friends, I'm getting the kitten urge. You know, tag your rescue friends. And the first kitten I see is this beautiful blue-eyed orange Tabby named Mango.

[01:32:51] **Aven:** When the universe tells you what to do to

[01:32:55] **Moxie:** hand him over, he's clearly mine. So, yeah, you can go to yourbrainonfacts.com or once you have finished the entire back catalog of Endless Knot, you should be able to find it on the same app you're already listening on.

[01:33:07] **Aven:** Well, thank you again for joining us. This has been absolutely delightful in spite of the topic

[01:33:12] **Moxie:** I have learned so much.

[01:33:14] No, I love, I learned so much that I never knew. Like I couldn't even hold on to stuff to comment later. Cause it was just so much of it.

[01:33:21]**Aven:**  A little bit of a water spout of information there, but

[01:33:24] **Moxie:** it's sort of fact waterboarding, but Hey.

[01:33:30] **Aven:** Yeah, it's just a little,

[01:33:32] well, it's a great pleasure. And again, if you haven't listened to Moxies podcast, please do, because it's always a bunch of really fascinating facts in a nice, in a contrast to our, our podcast in a nice digestible format.

[01:33:46] That you can actually hold onto the information from, and I highly recommend it. So thanks again. And to our listeners, we'll be back, I don't know, in a month or so maybe we'll do something that's only three or four months old by the time we get to it. We'll see no promises though. Thanks for listening.

[01:34:09] **Mark:** Bye bye.

[01:34:09] **Aven:** Bye.

[01:34:11] **Moxie:** Bye!

[01:34:12]**Aven:**  For more information on this podcast. Check out our website, www.alliterative.net where you can find links to the videos, blog posts, sources, and credits, and all our contact info.

[01:34:23] **Mark:** And please check

[01:34:24] out our Patreon where you

[01:34:25] can pledge to support this show and our video project. You can go directly to the videos at youtube.com/alliterative

[01:34:32] **Aven:** our email is on the website, but the easiest way to get in touch with us is Twitter.

[01:34:36] I'm AvenSarah a, V E N. S a R a H,

[01:34:41] **Mark:** and I'm alliterative. To keep up with the podcast, subscribe on your favorite podcast app or to the feed on the website,

[01:34:47] **Aven:** and if you've enjoyed it, consider leaving us a review on Apple podcasts or wherever you listen. It helps us a lot. We'll be back soon with more musings about the connections around us.

[01:34:56] Thanks for listening.

[01:34:57] **Mark:** Bye.

[01:35:06]**Moxie:** Okay. Let's see if you guys can hear this. He just woke up and got up on my lap and he's purring and I'm going to put him right up on the microphone. We'll see.

[01:35:12] Yeah, I know.