

Pestilence, Plague, and Perseverance

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Joshua Holo: Welcome to the College Commons Podcast, passionate perspectives from Judaism's leading thinkers brought to you by HUC Connect, the Hebrew Union College's online platform for continuing education. I'm Joshua Holo, your host. Welcome to this episode of the College Commons Podcast. We're going to speak with author Jeremy Brown. Jeremy Brown is a physician and historian of science and medicine and works at the National Institutes of Health in Bethesda, Maryland. He's the author most recently of *The Eleventh Plague: Jews and Pandemics From The Bible to COVID-19*, which came out in 2023 from Oxford University Press and won a national Jewish book award. Dr. Brown, Jeremy, thank you for joining us and congratulations on your award.

Jeremy Brown: Thank you so much for the honor of inviting me on.

JH: Your book, *The Eleventh Plague* is divided into four parts spanning ancient and modern history. But you start off with a very helpful timeline of plagues and Jewish history and that timeline actually reveals something very notable because between the 10 plagues in Egypt and the Black Plague in the 14th century, you list six incidents. By contrast, however, from the 14th century to today, you have a granular list of 10 pages of dates and epidemics. Tell us how we know about plagues in the earlier years leading up to the Black Plague, even though your timeline illustrates how we lack specific historical sources for them.

JB: What a terrific first question. Obviously, we have more data and more documents about that which happened most recently. And the further back you go, the fewer and fewer documents you have. And when it comes to that time period that you were mentioning, perhaps you might even talk about it as the time from the destruction of the temple in 70 AD until about the 11th century, we really know very, very little about what happened to communities in plagues. Now there is a notable exception, that's the plague of Justinian, named after the Byzantine Emperor Justinian who died in 465 and it came in successive waves and we have some writings from a contemporary historian about what happened there, but it's a sort of a period of ancient history that we really know very little about. In addition to this historian, we do have a Jewish eulogy from the Byzantine area, which was found in the Cairo Geniza, which was written in Palestinian Aramaic and describes an unnamed child who died in a pandemic. Other than that, we really know very little from the closing of the Talmud around 600 until we get to the early codes of Jewish law around 11th century. It's interesting though to note recent scientific discoveries have

actually gone back to look at that plague of Justinian in more detail, but I don't address those in the book.

JH: You discussed some of the potential scientific explanations for stories that are lost in the fog of religious memory, such as for example, the 10 plagues. What are the benefits and risks associated with trying to peg religious history to science?

JB: I think it depends what you mean by peg. For some people, and indeed I would say for all thinking people up until around the early modern eras, that's from the time of the Bible until the 1600s, the Bible was the single source of all knowledge and that include what today we would call scientific knowledge. Although it certainly wasn't called that until the early modern era. If you look at the little that the Rabbis comment on in terms of what we would call science, they're questioning, there's less observation and there's more we know this because of the verse in the Bible that says the following. So until, as I said, the early modern era, the Bible was the source of our understanding of the world. Since that period, obviously we have moved away from that and science is science and the Bible is the Bible and there are, of course, still people who claim that the Bible is a book of everything including science and therefore we can find what we need to find out about science in the text of the Bible. I personally don't subscribe to that notion and I've written about it in detail in another one of my books on the history of the Jewish reception of Copernican thought where I go into detail about this question of seeing the Bible as a book of science.

JB: But famously Galileo himself said, the Bible is a book that teaches you how to go to heaven, not how the heavens go. And that plan actually works beautifully in Italian. So that is the modern notion that we at best look to the Bible for stories of inspiration perhaps to shape in a very rough way the morality that we share in the Judeo-Christian tradition. But above and beyond that we do not look to the Bible as a source of science. Now, and in terms of explaining that which is described in the Bible, we again have two sort of large schools of thought. The first, these are miracles, they were brought by God. The second that these are, as you said, stories that had something in our historical memory, the details are fuzzy, who knows how they really started, but many people want to try and understand supernatural events, miracles in terms of signs. And so you get books written about the crossing of the Red Sea was really an earthquake and a tidal wave and the sea became dry. And as I discussed in my book, an attempt by many people to look at the plagues described in both the Torah and also in the Book of Samuel and try and understand them in terms of what could be going on here.

JB: This is an odd order of things and several historians have gone to, I think, great lengths to try and explain how the plague of frogs leads to the plague of lice and so on all the way through. Some are more convincing than others, but none are really terrifically convincing. And I brought them maybe to show that this is something that people do in somewhat of a scientific way to try and understand them.

JH: Do you think that there's a risk, an intellectual risk, a spiritual risk in that attempt, either a risk to the integrity of religion or a risk to the integrity for that matter of science?

JB: I think the risk comes when people pin their belief on showing that the Bible contains all this stuff that we only know today scientifically. So for example, to go to a topic that I do not discuss in the book, Genesis and the Big Bang, countless books written on it, how really it's not six days, it's 6 billion years or whatever the number is. And if you understand the latest science, then you understand this is the message of the Bible. And I think that those efforts are really misdirected, for a number of reasons, not the least of which is that our scientific understanding changes and we don't know the truth. In science, we try to be less wrong. We try to understand our mistakes and get closer and closer to some approximation of what we think is happening scientifically. So it's very likely, and again I talk about this in my other book, how people use the science of their day to disprove the Copernican model that came out in the 1540s, that it's not true that the sun goes around the earth; actually the earth goes around the sun. And there were all kinds of attempts to discredit this theory based on science, which, of course, turned out to be nonsense.

JB: This attempt, therefore you have this risk that if you base your belief and indeed your practice on the Bible and your understanding of the science in the Bible, you are bound to be, I think, very, very frustrated. But the Jewish people have never really been the people of the Bible book. They've been the people of the Talmud book. We, traditional Jews, only understand the Bible through the lens of the Rabbis of the Talmud. In that respect, there is I think a little bit more leeway and, of course, the vast number of discussions in the Babylonian and Palestinian Talmud really reflect this idea that there are a number of different ways of looking at things. But if I can just add one more point to this, this push to understand what happened in the 10 plagues in a scientific manner, whether it was a volcano that caused the plague of darkness, whatever it was, it's not necessarily only a modern thing. And in the book I talk about, Yehuda Ayash, who was a Rabbi, lived in Algiers and died in 1760 and he, in his book V'Zot LiYehuda that was published in 1776, he asks a specific question as to why the Torah used the words the hand of the Lord will strike your livestock in the fields. That's from Exodus 9:3. Why does it talk about the hand of your livestock in the fields? And so Rabbi Yehuda Ayash used the best science of his day and he tells you the following, we all know, he says, disease is caused by miasmas.

JB: Miasmas are foul air that was thought to be the cause of all kinds of infectious diseases up until in fact the late Victorian times. So he said, because this is how we know disease spreads. There was, of course, no germ theory. The reason the Torah uses the livestock in the field is to tell you that even though the livestock went into the field where normally foul air would not be found, it was there that they were struck down by God and to show you how unusual this was. Now, of course, the Miasmatic theory of disease is consigned to history and it is not true. Don't get me wrong, we have pollution, but in terms of infectious disease, it's not caused by foul air. But here you see an attempt by a Rabbi commenting on the Torah to use what he believed was the best science of his day, to understand a verse. And I think that's very reasonable. It's just that if you hang a lot on that interpretation, you're bound to be frustrated when the science no longer supports what it is that you've said.

JH: You pay yourself into a corner.

JB: You do. And it's an unnecessary corner. I never have seen the Bible as the handbook of nature. Describing natural events is really not of interest to the Bible. It will describe miracles, but it's not something that we look to the Bible to tell us the science behind the events. That's something that I think is down to us to squeeze out from the text.

JH: It does seem that religion, perhaps the Bible, but certainly religion, broadly speaking as well is in fact particularly relevant and helpful in responding to pandemics in as much as religion bears a unique power to speak to fear and vulnerability such as Psalm 91, which you cite precisely because of that. Aside from the spiritual power of religion to speak to our most active fears and emotional needs, is there also a role for religion in its communitarian capacity and specifically Judaism's communitarian emphasis to also play a defining role in responding to pandemic?

JB: Oh, I think very much so. I think if you look at the most recent experience that we have all had something that seems so remote now, doesn't it Josh? It seems like really? I actually have a whole chapter in the book about Jews and Judaism in the Age of COVID. But it was for this exact reason that we formed communities, the Orthodox Jewish community in particular, but not only, the same is true of many church communities and mosques. They were disproportionately struck by a disease that is spread through social contact, coughing and sneezing. And so it's the very beauty of not only Judaism but other religions where there is an idea of coming together as a community, whether it's to pray or to celebrate milestone events. It was that very emphasis that caused them to be the victims in a disproportionate way. If you stayed at home and never went to church or synagogue and never went shopping and didn't have people coming in from the outside, you probably would not come down with COVID. So yes, I think there is a certain problem or side effect, if you like, of the emphasis on community. Of course, I would not trade that in for a minute. I don't think you would either. But Jews and Judaism had to learn what it was to rethink community during an age in which communities did not come together physically. And I think the different streams of Judaism all dealt with this in various ways.

JB: Some of it had strengths and some of them had weaknesses just to pay two very broad camps, the traditionalist camp that said, listen, we appreciate the need to include people, but we don't approve of the use of Zoom on Shabbat because how it uses electricity. Well, that encouraged the people to become physically close 'cause they had to be in order to pray. But it left out so many people who were confined to home, the elderly people who couldn't make it to synagogue. And so it left that whole aspect out and that was a real problem. On the other hand, other communities like the Reform community where the use of Zoom began seamlessly, almost. That was a tremendous strength including people who otherwise could not get together, its weakness was, I believe you don't end up with the same power of community when you are all on Zoom and nothing else, and there's no physical interaction. So I think that the beauty of Judaism and its focus on community communal events is something that was troubling to us and we paid a price for it. If you look at the numbers during the early period of the COVID outbreak.

JH: Not only do I agree with you that we would not want to exchange our communal sensibility, we wouldn't want to get rid of it at all because it's too much of the DNA and the value proposition of Judaism. I think we're still figuring out the post pandemic reality of the communal experience, what Zoom has afforded us that we never had before, and what it has denied us or what it has overemphasized at other expenses. All of us have some living and thinking to do, I think.

JB: Yeah, I think that that's absolutely correct. And by the way, it's not only religions who deal with this. I work at the National Institutes of Health and we have like probably many or most of your listeners Zoom meetings with people. We don't get together physically. And while that's great 'cause it means I can be in the meeting and talk to my colleagues from my basement, I'm not interacting with them. It's exactly that dichotomy. It's expansive in many ways, but you know what, when we all make the effort to at least come in once a week to the meeting, it's actually very pleasant and refreshing and stimulating. So it's not only religious communities that have to deal with this, I think it's society and that includes workspaces. And we've heard a lot about the push to get people to come back in the buildings, other office situations where they say, No, totally remote. And yet as you say, we're still thinking about this. And the dust hasn't settled yet.

JH: The dust hasn't settled. We agree. In the pre-modern Jewish world, there were at least three categories of response, probably many more, some of which you outlined, to pandemic. One was penitential fasting, another was to isolate, and the third was to flee. Do you think it's possible that the Rabbis to some degree over the course of time from the Talmud into the Middle Ages, in many cases enshrined and actually legitimated either isolation or flight as alternatives to penitential fasting because they may have had a deep seated but rather impious sense that fasting doesn't work? Or do you think that they're just different responses?

JB: Now, I think that they compliment each other. The Talmud is very explicit about staying indoors. There's very little direct advice about pandemics, although there is a little, and I cited it, but the Talmud is very specific. If there's a plague in your city, gather your feet, meaning stay indoors. And that became what people did. But as societies developed the Rabbis of the early modern period, and I'm talking here about the Maharal who died in 1427, Rabbi Shlomo [0:17:01.7] ____ Luria who died in 1537, all of these and others spoke about the need to justify people who flee from a plague because this is what people did. And so it is an interesting example of Jewish legal theory catching up with Jewish practice. It turned out that by the 16th century, Jews ignored the advice of the Bible by and large, and they all fled when they could. And one great example of this is Rabbi Moshe Isserles, the great Rema who some of your listeners may have visited his synagogue in Krakow, in Poland. He wrote the definitive gloss on Shulchan Aruch, the Code of Jewish Law, and it's his gloss that we Ashkenazi Jews follow when we are looking for what the Jewish law is. It's interesting that Rabbi Moshe Isserles fled from a plague. He actually writes about it in his first book, Meh'ir Yayin.

JB: He writes about what happened when he fled Krakow in 1556, and he writes that he was sojourner in a land that was not ours. He was unable to celebrate the festival of Purim because he was outside the city. And he actually resolved, therefore to write a book on Megillah Esther the scroll on the book of Esther that we read on Purim. And that was his first publication. So

here was a leading Rabbi, perhaps one of the most influential Rabbis of ever perhaps, who himself fled. And as I said, this is in contrast to the advice that the Talmud gives on the matter. In my book, I contrast that behavior with behavior of someone who was contemporary, who was Martin Luther. Now of course, Martin Luther was a terrible anti-Semite, so I'm careful to quote him, but it's fascinating to note that Martin Luther was very clear that you should not flee that as a Christian, you should place yourself in danger to come to the aid of others. And this is not, by the way, standard Jewish teaching. So I think we see here an interesting split in the religious approach. One is take care of yourself first, run far away. And the second is Martin Luther's approach.

JB: Put yourself in the hands of God and take care of those who are less fortunate than yourselves. And by the way, there are many examples of Jews who took care of those who fled plagues to other communities and great risk to themselves actually later contracted disease while they were taking care of others. So yes, this idea of fleeing is an interesting example of Jewish lived experience versus theoretical Jewish law.

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JH: Let's move on a little bit to vaccines, which are so much a part of the story of COVID, but let's go back in time a little bit first to a fascinating chapter that you share with us. At the intersection of the small pox vaccine and Jewish communal policy. Tell us about Jenner and the Jews.

JB: The chapter that I have on smallpox vaccination and hope is titled, God Has Opened The Eyes Of The Wise-hearted Dr. Jenner. These are the words of Rabbis who saw what Jenner had done with the small pox vaccine and how important it was in the lives that he had saved. So just to bring people back, small pox is a disease that none of your listeners have seen and none of your listeners know anybody who've seen it. It was eradicated from the earth in 1979 following a smallpox vaccination. Many of your listeners may have had a small pox vaccination as children, but beyond that, it's a disease that was eliminated in 1979, 1980. But before that, it was the most terrible of diseases. It had a mortality rate of somewhere around 30% to 40%, nearly all its victims were children, because if you survived childhood small pox, you didn't catch it a second time, and so most adults were immune by the very fact that they had likely contracted it as children, so the victims were almost entirely children. It was a grotesque disease causing ulcers on the skin, in the eyes, causing blindness.

JB: A most horrible disease. But Jenner noted that the milkmaids who were milking cows never got smallpox. But they did get something called cowpox which is a much more mild disease, and it's a sort of a cousin of small pox. And so Jenner figured out these milkmaids must be immune to whatever the small pox is, and he deliberately inoculated a child with a cowpox

vaccine, and the child did not develop small pox and from there, things took place very, very quickly. The 8-year-old boy, James Phipps was the test case, and by 1797, he published his work, it was translated into German, Italian, Dutch, Portuguese, and by 1853, for example, so barely 50 years after his work, the British government mandated vaccination against smallpox. The question here, though, for the Jewish community was, what do we recommend in terms of our own Jewish law, because before Jenner's vaccine, there was a smallpox inoculation, and what would happen is that they would take the pus from a boil and they would inoculate it, and I use the word deliberately, inoculate it, meaning place it under the skin of the person who hadn't had the disease, and then you would sit back and hope that the person developed a mild case of smallpox and became immune.

JB: All of this depended on chance, a little bit of skill of the inoculator, how deeply the pus was placed and so on, but there was a great deal of chance you could give too much and the person would die, you could give not enough and there wouldn't be an immune reaction. In any event, this was the smallpox inoculation that was around before Jenner. And the question in Jewish law was, is that something we should do because it has a mortality associated with it? 3%, 5%, a much higher mortality than anything we have today that's a vaccine. So what then happened was many Rabbis with some justification said, Listen, this is an intervention that has a significant morbidity and mortality associated with it, we do not recommend it. And then came along the vaccine from the word *vaccinus* meaning the cow because it was from cowpox. And this was completely safe, nobody died from the vaccine. And what you have now is Rabbis turning from an inoculation that, yes, saved many people and also introduced disease in others to a totally safe vaccine, and some rabbis required it because it was quite different to the inoculation that had gone before it.

JB: So this is the story of the wise-hearted Dr. Jenner, and how he introduced smallpox vaccination. Jenner could never have thought that barely 200 years after his vaccination, smallpox would be eradicated.

JH: In the description of the story, you cite one of the Rabbis who argues that the government acts in good faith, and the fact that the government adopted Jenner's vaccine as a social policy was in and of itself a motivating factor for those who were in favor of the vaccine in the Jewish community. I'd like to contrast that or use that as a point of understanding of relationship with contemporary anti-vaccination movements, Jewish and otherwise. You point out in the contemporary section of your book that one's level of education is often not an indicator of one's attitude toward vaccines. Is it therefore as contrasted with the case surrounding Jenner, a matter of trust? Trust in public institutions, trust in the public avenues for the dissemination of information. And if so, has trust declined or is something else going on?

JB: The anti-vax movement is complex. Generalizations are not sufficient. As you point out, we have plenty of studies showing that vaccine skepticism is not a matter of education, there are some extremely well-educated people who are vaccine deniers. Vaccine uptake is not only a question of religiosity, there are a number of orthodox Rabbis who have come out in favor and in deed, in requiring their communities to be vaccinated, so it's not the case that the more

rightwing you are, the less you invoke the need to vaccinate. It's complicated. And we know, however, that if we're going to be general, that there is some vaccine skepticism, especially among some Haredi Jews, just as there is vaccine skepticism on the left, but there is, as you mentioned, a distrust for official rules or policies and in general, it's not Haredi Jews who demonstrate this. It is extreme Jews. And this is not something that is unique to the Jewish community.

JB: Fundamentalist communities share many things in common, among of which is skepticism of the government and skepticism of science. That's almost part and parcel of what it means to be a fundamentalist, whether you're a fundamentalist Christian, fundamentalist Muslim, fundamentalist Jew. And in my book, I say that it's not that there are Jewish anti-vaxxers, there are anti-vaxxers who happen to be Jewish. And I think this is an important point to get over, and I only understood it after I'd spent a great deal of time researching the book and writing it.

JB: I was concerned, for example, that some people might use some Jewish texts to promote an anti-vaxxer platform. But it's not the case. There are plenty, plenty of orthodox rabbis who fully support and require vaccinations. What happens is that you have deep anti-vaxxers who in many ways would even describe their primary identity as an anti-vaxxer, and then they happen to be Jewish. And so what they do is they share many features in common with other anti-vaxxers, which is a distrust of government, a distrust of science and so on. So what we see when we have the anti-vaccination movement in Judaism, first of all, as I said, we have to be careful of generalizations because this is an example where people who might politically and religiously be on the very left somehow meet up with people who're politically and religiously on the very right, but this is a feature of fundamentalist Jews, as it is a feature of fundamentalist Christians and fundamentalist Muslims. It's not a feature of Jewish thought. Quite the opposite. The overwhelming majority of those who write on this topic from knowledge, of course, fully support the vaccination program that we have.

JB: One of the great pleasures in reading this book is the suspicion from the reader's point of view that you, the author, Jeremy Brown, had a great time writing and researching the book, and that you yourself learned a lot. What surprised you reading this book?

JB: You're absolutely correct, Josh. I've written a few books in the past, this was by far and away the easiest book I've written. These sources jumped out to me from the pages. I could barely contain my excitement when I would come up from the basement and share what I'd found with my wife and synagogue. Just to give you a very quick example. For those of you who may recall, 2020 was the Shmita year. The year in which the land must lie fallow in Israel. This happens every seven years. According to the Bible, every seven years, you don't work the land, and 2020 was such a year, and it was also of course a pandemic year. It turned out that there was also a cholera outbreak in Palestine that coincided with the Shmita year. It was the beginning of the 20th century. When I discovered this, of course, I thought it was incredible that what we think is new and has never been seen before, the meeting of a Shmita year with a pandemic, well actually, it happened a little bit more than 100 years ago. So it was sources like this that I took great pleasure in learning about, some of them I uncovered, some of them I read

the work of others who done cover them. I was also very taken by the response of the Jewish community, really throughout history to... Not to allow pandemic to end Jewish communal life 'cause we spoke about at the beginning of our talk.

JB: Jewish communal life suffered as a result of COVID, but we see especially in the medieval period, but later than that, that there were many rabbis who went off, fled pandemics, set up a hut in the field with their families and sat and said, Well, listen, I can't do anything else now, so I'm just gonna write a commentary on one part of Bible or another, or I'm going to write a book about astronomy and Jewish law. These are all responses to pandemics. The Jewish response to pandemics historically was never giving up. It was doing everything you could to survive and not only survive, but flourish in your community, whether it meant taking your printing press with you, or whether it meant writing a book in exile, or whether it meant turning to Zoom and other modern things that we have in our lives to flourish as Jews one more. That too was something that I was unaware of and something that I am incredibly proud of as a feature of Jewish history.

JH: Well, Dr. Jeremy Brown, thank you for the delight of the book and the discovery and its consummate relevance for our condition today, and a little bit of distance a couple of years past the pandemic, so we get a little bit of the rear view mirrors clarity, but also a lot to think about, about the future and where Jewish history and epidemiologies will intersect. Thank you so much for joining us and thank you for your book.

JB: Thank you so much for inviting me.

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