Disease! Crash Course World History 203

Crash Course: World History
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Hi, I'm John Green, this is Crash Course World History, and today we're going to talk about a subject that makes me profoundly uncomfortable — disease.
This is a tough subject for me personally because I'm a bit of a hypochondriac, but, to be fair, my fears are kind of rational. I am afraid that my existence will be ended by a soulless microscopic organism, and to be fair they have killed a lot of people. You're not paranoid if germs are actually out to get you, and, as we'll see today, they are.
Fortunately, we live in the twenty-first century, when communicable disease does not play such a massive role in human history, unless of course you count Bird Flu or SARS or HIV AIDS or antibiotic-resistant bacteria.
All right, Stan, let's just go to the intro.

(Intro)

Okay, so long time viewers of Crash Course will remember the sixteenth century Great Dying in the Americas not only as an example of historian's total inability to name things, but also as perhaps the most important and wide-ranging effect that disease has had on human cultures in millennia. But traditionally the study of history hasn't focused much on diseases, partly because they're mysterious and terrifying and partly because they don't fit in very well with our ideas about history being the result of human agency. We like to imagine that things happen because we did good things or because we did bad things or at least because we did some kind of thing. But, in fact, history often happens because lots of people got smallpox.
There's also the fact that diseases were often seen to be the result of divine will or else divine wrath. Plus, because people didn't know that much about disease they didn't write about it very often and when they did write about it they didn't always write about it particularly well. So when you read primary sources often they're like, "Why'd they die? Well, too much of that miasma." That's not particularly helpful to us.
So given all that, we are going to have to engage in a bit of speculation here.

>John Green from the past interrupts.<
"Mr. Green, Mr. Green, I love speculation. It's way more fun than history. Like, what would have happened if the South won the Civil War?"

>John Green from the present answers, shaking head.<
"Nooo, me-from-the-past, not that kind of speculation. The kind of speculation where you guess what did happen, not what would have happened."

>Lecture format resumes.<
So, diseases have been with humans as long as there have been, like, humans. And humans first appeared in tropical regions in Africa which are home to a wide variety of micro-parasites so it's probably a good bet that those parasites played a role in keeping human populations really low for a long, long time.
It's only after we see migration out of Africa and into regions less amenable to diseases about 64,000 years ago that we start to see the growth of human populations necessary to create what we problematically call civilizations.
So humans migrated in to river valleys that became the cradles of civilization with agriculture and surpluses, etc. This allowed us to escape those population-limiting tropical diseases but it created all kinds of new disease problems.
The communities and river valleys had more people and more population density, which allowed for epidemics. I mean one of the great things about hunting and gathering is diseases cannot wipe out a city if you don't have cities.
Also, River Valleys can be breeding grounds for disease, especially were cultures developed irrigation which often relied on slow moving or standing water. If you ever had to clean a bird bath, you'll know that standing water is the perfect environment for disease carriers and nasty microorganisms.
For example, schistosomiasis was recorded in Egypt as early as 1200 B.C.E. What is...what is, that Stan? Oh, apparently, it's a parasitic flatworm...do we still have that? Yeah do, we do. Awesome. Anyway, lots of diseases come from domesticated animals. But, you can't have bacon without swine flu. So, you know, it's come-see come-some. That's gonna be a hilarious joke when we all die of swine flu. Just kidding! We're all gonna die from bird flu. But from, like, a macro historical perspective, it's not like disease is all downside. I mean, sometimes it's helped populations shielded themselves from conquest. That was the case in Africa until the 19th century. OK, so we like to say that one of the Hallmark's of civilization is writing, and pandemic diseases were the type of events that people tended to write about in early civilizations because they were a big deal. Like pestilence appears in the Epic of Gilgamesh, early Chinese historians describe the increase in disease as populations spread from the Northern Yellow River region to the more tropical Yangtze River region. Ancient Greece was relatively disease-free because of it's climate and also the isolated-nature of city-states; but the more the cities became involved in trade, the more susceptible to epidemics they were. The best example of this was the Plague that struck Athens in 430 and 429 B.C.E. during the Peloponnesian War. At that leads us to a very important point, which is there is a decent correlation between war and disease. Armies tended to carry it along with them and food shortages and displacements made civilians more likely to get sick. That is still very much the case and the weird symbiotic relationship between war and disease is something we will look a lot at in the next several weeks.

But nothing spreads disease quite like trade. Trade is so good for economies and so bad at keeping individual human beings not dead. Like Ancient Rome's immigration into trans-continental trade networks like the silk road may explain why the historian Livy reported at least eleven pestilential disasters and it is very likely that disease and the accompanying decline in population contributed to the fall of the Roman Empire.

But of course you can't talk about the history of disease without mentioning the most famous epidemic of all time - The Black Death. I mean if the black death were a soccer team it would be Liverpool Football Club; if the black death were a band it would be The Beetles; if the black death were and industry it would be 18th century textile processing, in Liverpool.

The plague, which struck Europe in the mid 14th century, originated in fleas that came from rats, and Bubonic plague can be found throughout the world, even in the western US today (although it is more treatable now, thankfully). But anyway the black death started in China and spread westward over the caravan routes, really picking up steam when plague-carrying rats jumped onto Mediterranean trading ships. So the death rate from this plague was incredibly high, perhaps a third of people living in Europe died.

Oh it must be time for the Open Letter. Oh look it's the Grim Reaper - stay away from me. An open letter to the black death. Dear black death, I don't want to compliment you but that term "black death" is just some fantastic branding. Such a scary term. It's a shame that people in the actual 14th century didn't use it. It was first coined in 1832 by a German doctor and professor of the history of medicine, JFK Hecker. And the term became popular in English after it was used in A History of England by Elizabeth Cartwright Penrose so great job JFK Hecker. It took a historian who was also a doctor to come up with a name as catchy as "The Black Death" but for once, historians, you did it. The terrifying things got the terrifying name it deserved. Best Wishes, John Green.

So we are not 100% sure that the "Black Death" was Bubonic Plague. Its virulence suggested in some places it might have been pneumonic, but we have descriptions of it that match Bubonic Plague, like this one from Florentine chronicler Matteo Villani "it was a plague that touched people of every condition, age and sex. They began to spit blood and then they died--some immediately some in two or three days, and some in a longer time...." "most has swellings in the groin, and many had them in the left and right armpits and in other places; one could almost always find an unusual swelling somewhere on the victim's body."

Stan I appreciate you doing that in text and not pictures because it sounds truly horrible.Thank goodness that was the last we saw of outbreaks of Bubonic Plague. Whats that? there was an outbreak in 1904 in San Francisco? Oh boy. And India in 1994?

Obviously the Plague affected a lot of individuals lives, but it also affected world history. Like, Plague probably contributed to the fall of the Wan Dynasty in China in the 14th century, but its greatest effects where felt in western Europe.

Okay, lets go to the thought bubble. There's was some debate about whether the black death kick-started Europe's economy, and ended the middle ages. It probably did create some opportunity, like guilds were forced to admit new members to replace the many workers who had died in persistent European inflation until the end of the 14th century suggests both a shortage of products and higher wages.

Again, Matteo Villani provides us with some evidence in the effect of the plague on Italy's economy. "Nurses and minor Artisans working with their hands want three times or nearly the usual pay, and laborers on the land all want oxen and all seed, and want to work the best lands, and to abandon all others."
So the Plague may have actually been good for workers, at least those who survived.

The plague also probably changed European Christianity. When faced with seemingly random and widespread death some people abandoned piety for hedonism, and ineffectiveness of priests in dealing with the crisis may have led to an increase in anti-clericalism and a greater receptiveness to the ideas of the Protestant reformation.

And attempts to combat the plague changed the way that Europeans lived too, for example there where new construction techniques such as building out of brick instead of wood, and in many places tile roofing replaced thatched roofs, where rats liked to live. These new shelters created more barriers between humans and disease carrying rodents, and plus there where fewer Plague infested rats falling out of the ceiling, so that's nice.

Thanks thought bubble, so the Black Death looms larger in our Eurocentric imaginations, but in terms of devastation and human suffering it pales in comparison to the great dying that accompanied the Columbian exchange. The pre-Columbian Americas where certainly no paradise but the records we have suggest that Amerindian cultures were largely free of disease until the arrival of Europeans. They did have syphilis, but that's preventable.

Not to be redundant, but the most obvious, and often most overlooked aspect of the Great Dying, is the dying. I mean, perhaps 90% of native populations of the Americas may have perished destroying communities, and families, and entire cultures. And at the same time that diseases where destroying indigenous orders, Europe's population was growing, thus creating more pressure to colonize the Americas, Asia, Africa, and eventually Australia. And so its fair to say, as historian Jared Diamond has, that disease was, if not the decisive factor, a crucial determinant of Europe's dominance in the modern era.

So while not exactly the last hurrah of epidemics, the world has not seen anything remotely like the devastation brought by the Colombian exchange since. Some of that is due to our new shared immunological profiles, but much of it can be chalked up to massive improvement in science and medicine.

The most significant medical advance the battle against viral epidemic diseases like small pox was inoculation, which was probably actually invented in Asia but came into wide use in England after 1721 and in continental Europe a century later. And then the development of antibiotics in the 20th century proved extremely effective against bacterial diseases like Bubonic Plague and tuberculosis.

Some of these advantages have had tremendous results like small pox has been eliminated from the human population; But infectious disease continues to be a leading killer of humans and we still see deadly epidemics of diseases like cholera around the world, and even though antibiotics have been in wide use for less than 100 years, many drug resistant bacteria have already emerged and terrifying diseases like tuberculosis have started to make a bit of a comeback.

Then you have modern endemic diseases HIV/AIDS along with the lurking threat of new and terrifying epidemics like the various flus we often hear about. All of that reminds us that disease is still shaping human history, and has the potential to be the most powerful force in human history. Like the one that ends it.

We like to think that the human story is both told by and made by humans, but in fact it's a lot more complicated than that because we share this planet with countless creatures. I know we all like to think of ourselves as individuals but we cannot separate ourselves, not only from other people, but also from the larger biosphere; that whole story is the story of history.

Thanks for watching; I'll see you next week.

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