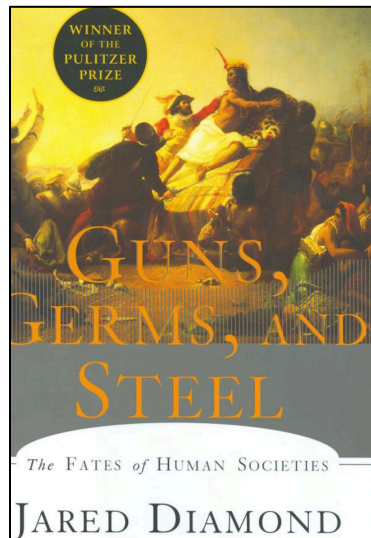


A Summary of Jared Diamond's *Guns, Germs, and Steel*

by Kim Marshall – May 2016



CONTENTS

Introduction – 2

How European Conquest Unfolded – 3

European Advantages – 4

Pre-Historic Times: It Looks Like a Level Playing Field – 6

The Beginning of Agriculture – 6

Domesticating Animals – 8

How Agriculture Spread – 9

Infectious Diseases – 11

Eurasia Takes Off, with Europe the Latecomer – 12

The True Explanation of European Domination – 14

Teacher's Guide

Understandings – 16

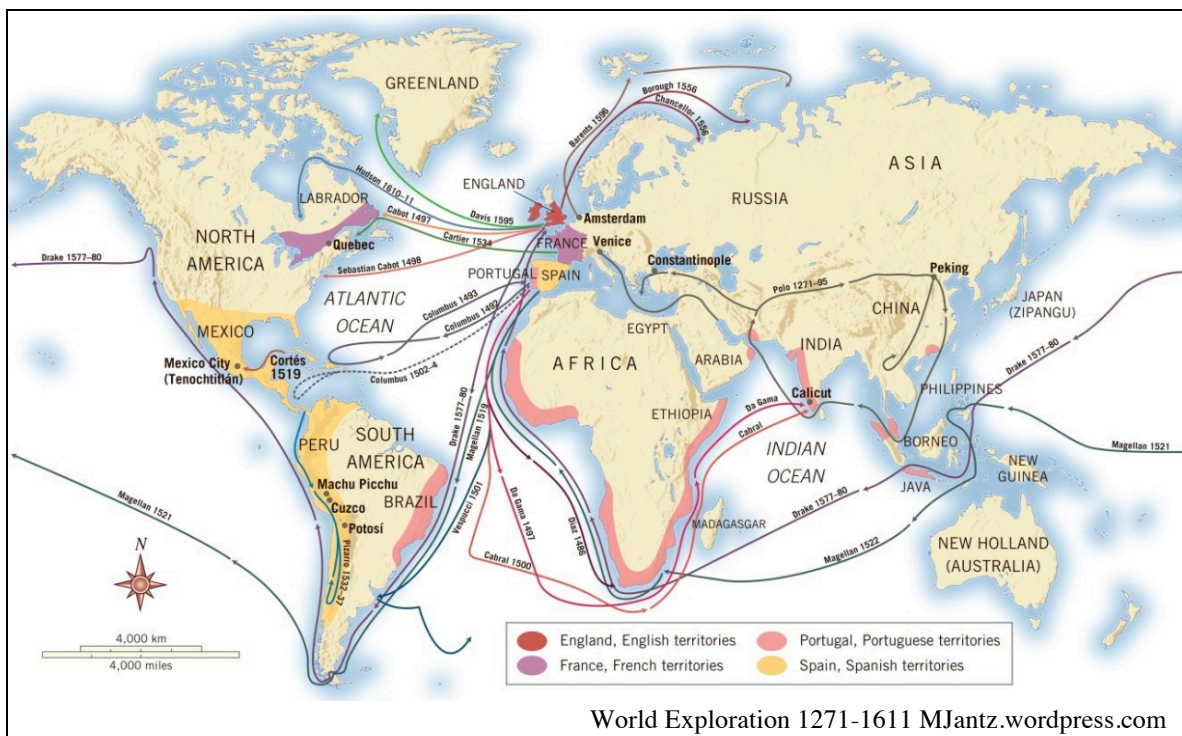
Likely Misconceptions – 17

Essential Questions – 17

Resources for Further Study – 18

Introduction

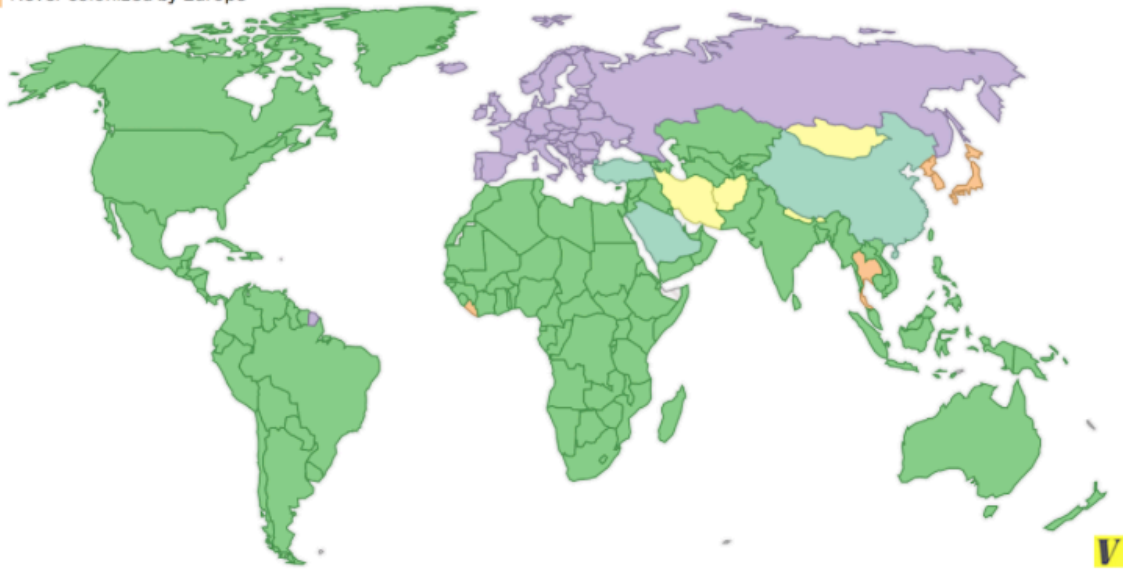
When Christopher Columbus returned to Europe from his first trip and described the “New World” he and his men had found across the Atlantic, there was great excitement. From 1493 through the 1600s, thousands of ships sailed from Spain, Portugal, England, France, Italy, Russia, Holland, Sweden, Denmark, and Germany, and several other countries to explore, claim land, conquer indigenous people, and set up colonies. The map below shows just a few of the European voyages in this era.



The Europeans were so successful that by the end of the 1600s, they had taken over about 84 percent of the world’s land area. The map below shows the extent of European world domination: between 1492 and 1914, only five countries escaped being ruled by a European power – Japan, Korea, Thailand, Liberia, and Ethiopia (which was conquered in 1935).

Countries that have been under European control

Europe Colonized or controlled by Europe Partial European control or influence European sphere of influence
Never colonized by Europe



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How could these relatively small European countries – they make up only 8 percent of the world’s land area – achieve such global power? Several theories have been put forward over the years:

- The Europeans were more intelligent.
- The cold winters in Europe spurred ingenuity and invention while people who lived in warmer climates were more laid-back.
- The people on other continents tended to be more peace-loving and nonviolent and were no match for the violent and cruel European invaders.
- God favored the people of Europe so they could bring Christianity to the world.

In fact, the Europeans’ world domination had nothing to do with intelligence, disposition, climate, or divine intervention. In his Pulitzer Prize-winning 1997 book, *Guns, Germs, and Steel*, UCLA professor Jared Diamond puts forward a radically different explanation that has gained wide acceptance. What follows is a brief summary of Diamond’s 480-page book, with links to his writings and other helpful resources for teachers.

How European Conquest Unfolded

Let’s start with a story that illustrates the *immediate* reasons why Europeans were able to win battles with the indigenous people they encountered on other continents. In 1532, the Spanish explorer Francisco Pizarro led a troop of soldiers into the heart of the Inca empire in what is now Peru. At that time, Spain was the wealthiest and most

advanced nation in Europe, and the Inca empire was the most powerful civilization in the Americas (as this map shows).



Pizarro advanced into Inca territory with only 168 soldiers, 62 mounted on horses and the rest on foot. He and his men were over a thousand miles from the nearest Spanish reinforcements in Panama as they approached an army of 80,000 Inca soldiers under the command of the emperor Atahualpa. In the surrounding countryside were millions of Inca people, all of whom worshipped Atahualpa as the sun god and were ready to obey his every command.

And yet when Pizarro's men fought Atahualpa's army in the battle of Cajamarca, the Spaniards crushed the Incas, killing thousands without losing a single man. The Incas, despite outnumbering the invaders 450 to 1, couldn't match the Spaniards' weapons and aggressive tactics. Atahualpa was captured and eventually killed. After this, Spain's conquest of South America proceeded with little resistance, and by 1600 Spain controlled large swaths of the Americas.

Encounters like the battle of Cajamarca occurred again and again as Europeans defeated indigenous people in the Americas, Australia, Africa, and parts of Asia. Some of the explorers and missionaries were less brutal than Pizarro, and some disagreed with the relentless push to claim land and colonize. But Europe's leaders continued their conquest, ordering soldiers to carry off countless shiploads of gold, silver, jewels, and natural resources and sending settlers to establish colonies that pushed aside indigenous people.

European Advantages

Looking back, it's easy to list the immediate reasons that adventurers like Pizarro were able to defeat armies that vastly outnumbered them:

First, the Europeans had far better weapons. At Cajamarca and in other battles, the indigenous soldiers' clubs, spears, and quilted armor were ineffective against the invaders' cannons, muskets, pistols, and steel swords, daggers, and armor.

Second, the Europeans knew how to use horses as terrifying and highly effective weapons of war. Horses gave them a huge advantage in chasing down and killing enemy foot soldiers.

Third, the Europeans had ships and methods of navigation that made it possible to cross thousands of miles of open ocean with soldiers, weapons, horses, and supplies. To those about to be conquered, it must have seemed that the invaders came out of the blue.

Fourth, the Europeans had developed writing, which allowed them to carry with them detailed insights about new lands from earlier explorers. Writing also allowed the Europeans to communicate more quickly and accurately with compatriots near and far. Most indigenous people relied on memory and messages sent by word of mouth.

Fifth, the Europeans had developed a level of political organization and centralized governments that allowed them to organize and fund expeditions to far-off lands. Some indigenous people, like the Incas, had empires, but they had not reached this level of organization and ambition.

Finally, the invaders unwittingly brought infectious diseases with them, including smallpox, measles, and influenza. Europeans had some immunity to these diseases, but indigenous people did not, and millions died when they were exposed to the alien germs. For example, a few years before the battle of Cajamarca, smallpox spread into South America from the Spaniards in Panama. It moved rapidly from village to village, killing thousands of Incas and causing panic throughout the empire. Smallpox killed Atahualpa's predecessor and sparked a civil war, with a rival emperor fighting Atahualpa for leadership. All this made Pizarro's conquest much less challenging than it might have been if the people he encountered had been healthy and united.

These six advantages were the *immediate* reasons Europeans were able to conquer most of the world. But what were the underlying reasons they had these advantages? Why were their weapons so much better? Why did their armies use horses when the people on other continents did not? Why were the Europeans ahead in developing writing and political organization? Why did they carry diseases that were so lethal to the people they encountered? And why were they so far ahead in building ocean-going ships and navigational tools?

In other words, why was Pizarro invading South America and capturing Atahualpa rather than Atahualpa invading Europe and capturing the king of Spain? It's certainly tempting to conclude, as many have, that the Europeans were simply smarter, more inventive, more ambitious, more ruthless, or more favored by God. But the real reasons for the Europeans' advantages are quite different.

Pre-Historic Times: A Level Playing Field?

Let's time-travel back 13,000 years, when the last Ice Age was coming to an end and vast glaciers slowly receded from the northern hemisphere. At this point, there were millions of humans in Africa, Europe, Asia, Australia, and North and South America – all the continents except Antarctica. These pre-historic humans were all hunter-gatherers, sustaining themselves by killing wild animals and gathering edible plants. Small bands of 5-80 people were constantly on the move searching for food and shelter, developing language, crafting tools and weapons, building shelters, using fire to cook food, fashioning clothes, creating works of art, and trying to understand the world around them. 13,000 years ago, all humans were at a very similar stage of cultural and technological development.

Time-traveling back to this era, could we have predicted which people would ultimately dominate the world? We would certainly notice differences in skin color, facial features, and body types in different regions, as well as strikingly different languages, hunting and gathering techniques, and customs. That is to be expected since most groups had been living in isolation from each other for thousands of years, separated by mountains, deserts, rivers, and oceans.

But archeologists and anthropologists tell us that these differences were superficial. Humans on every continent were members of the same species that had migrated outward over thousands of years from its origins in East Africa, slowly populating the other continents. All people of this species – *Homo Sapiens* – had brains of similar size and possessed the same mix of intelligences that allowed them to survive in many different environments. No matter how closely we scrutinized the people 13,000 years ago, it would be impossible to pinpoint built-in advantages that would allow us to predict which group would become the most successful.

And yet the seeds of future inequality were there – quite literally.

The Beginning of Agriculture

The first step from the wandering, hand-to-mouth existence of hunter-gatherers toward modern civilization was growing crops. Once humans grew their food rather than hunting wild animals and gathering wild plants, they would have a stable source of food, which would set in motion an unstoppable chain reaction. People would be able to:

- Settle down and not have to carry all their stuff from place to place;
- Build houses and larger structures;
- Produce more food than was needed for simple survival (scientist have calculated that by planting and harvesting seeds and domesticating animals, people could produce as much as *1,000 times* more food from one acre of land than when they were hunter-gatherers);
- Feed a much larger population, which means farmers greatly outnumber hunter-gatherers and can usually defeat them in battle or drive them off their land;
- Store surplus food to survive in lean times;

- Feed people not directly involved in food production, including inventors, writers, teachers, artists, and soldiers, thus accelerating the pace of innovation and development;
- Feed and support charismatic would-be leaders (that's why farmers, not hunter-gatherers, have kings and armies);
- Build boats that could cross rivers and lakes;
- Develop increasingly sophisticated works of art;
- Develop their religious beliefs and rituals.

In other words, farming would give an incredible advantage to those who adopted it.

Which bands of hunter-gatherers on the six continents would do so first – and why?

Archeologists have found evidence that agriculture was developed independently in about nine different locations around the world: Southwest Asia, tropical West Africa, Africa's Sahel zone, Ethiopia, New Guinea, the Andes and Amazon, Mexico, the southeastern U.S., and China. But the earliest and most extensive farming was developed about 11,000 years ago in Southwest Asia – the area that's now called the Middle East. Because of the new-moon shape of this area (see the map below), it has been dubbed the Fertile Crescent – but that's partly a misnomer, since the soil in this part of the world wasn't exceptionally fertile.



Why did agriculture develop earlier and more extensively in the so-called Fertile Crescent than in other areas around the world? Because the Middle East happened to have by far the largest number of plants and animals that lent themselves to being

domesticated by humans. Of the thousands of plants eaten by hunter-gatherers around the world, only 56 were large-seeded wild cereals, and of those, 32 were abundant in the Fertile Crescent 11,000 years ago. These included four species of grain (emmer wheat, einkorn wheat, barley, and the ancestor of bread wheat), several species of legumes (including peas, lentils, and chickpeas), and many species of nuts (like almonds) and fruits (like grapes and figs).

Why did the Fertile Crescent have such a variety of plants that humans could plant and harvest? Scientists believe it's because over millions of years, the region's mild, wet winters and hot, dry summers, along with its varied topography, spurred the evolution of large-seeded plants suitable for agriculture. There were other areas with a similar climate, including what is now California and Chile, but the Mediterranean area (including the Fertile Crescent) was the largest and had the greatest climatic variation.

The hunter-gatherers in this area were very selective in the plants they gathered, choosing those that were the tastiest, the easiest to eat, and most nourishing. Their choices were often rare mutations of wild plants – for example, wild peas with non-popping pods and wild wheat with bigger seeds. People ate them around their campfires, dropping some seeds on the ground. Weeks or months later, returning to that camp site, they noticed that some of the seeds had sprouted, picked and ate them, and dropped more seeds on the ground. Without intending to, people helped these desirable plants multiply and spread, which wouldn't have happened without human intervention. Eventually, people took the next step: deliberately planting and harvesting the best plants. Now the agricultural revolution was underway, with huge implications for the future of the planet.

But let's be clear: the people in the Fertile Crescent weren't smarter or harder-working than hunter-gatherers in other parts of the world; they just happened to be in the right place at the right time, surrounded by the plants and conditions that made the development of agriculture almost inevitable.

Domesticating Animals

In addition to planting and harvesting plants, the people in the Middle East also began to tame a few of the wild animals in the area and use them to great advantage. Once again, the humans who were in this part of the world were extremely lucky. Worldwide, there are about 4,000 wild mammal species, but only a few have the characteristics that make an animal a good candidate for domestication:

- It can provide milk, wool, meat, leather, and other useful products.
- It has a follow-the-leader behavior pattern and can be herded.
- It can be trained to be compliant to human direction.
- It's not vicious (for example, bears and rhinos are too mean to domesticate).
- It's not expensive to feed.
- It's not carnivorous, which would require raising or hunting meat to feed it.
- It is hardy and seldom gets sick.
- It will breed in captivity and its young grow quickly to maturity.

Scientists have found that of all the species of large land mammals, only 14 have these characteristics. The first farmers in the Middle East were fortunate enough to have five of these wild animals roaming through the region – cows, sheep, goats, pigs, and horses. It was only a matter of time before people began capturing, taming, and taking advantage of these animals.

Weren't there suitable animals on the other continents? In the Americas and Australia, there had been mass extinctions of large land mammals over the millennia (human hunting may have been responsible). In all of the Americas, there was only one large animal that humans could tame and put to work: the llama/alpaca. In Africa and Australia, there were none. Why couldn't people use African zebras? They look a lot like horses, but early humans learned the hard way that zebras are impossible to domesticate: they have a nasty disposition, can't be ridden or hitched to a plow, have such good peripheral vision that it's almost impossible to lasso them, and they bite and won't let go. How about bison? They are unpredictable, dangerous, and can jump fences. The indigenous people of North America hunted but never tamed them. As for the Eurasian species of goats, sheep, pigs, cattle, and other domesticatable animals, at this point in history, they were not living on the other continents.

In short, the people in the Fertile Crescent had amazing luck in the natural resources that happened to be available to them. Of the very small number of edible plants worldwide that are suitable to agriculture, many were growing to the Middle East. And of the very small number of wild animals worldwide that are suitable for domestication, five were living in the Middle East. All this gave the people in this area a big head start in making the shift from hunting and gathering to advanced civilization.

How Agriculture Spread

As people in the Fertile Crescent settled down and began to grow crops, they could support larger families and the population increased. People lived in larger and larger groups, expanding from bands of 5-80 closely related hunter-gatherers to tribes of hundreds of people in villages, then chiefdoms with thousands of people spread over a wider geographic area, then nation-states with more than 500,000 people, many living in cities. Several major civilizations flourished in the Middle East, including Sumer, Uruk, Babylon, Israel, and Egypt.

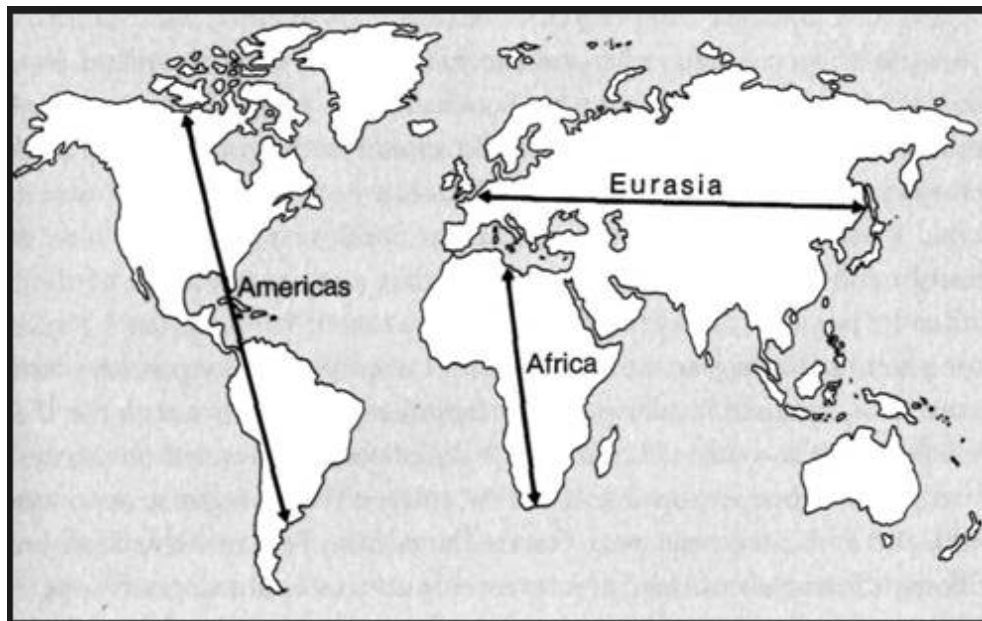
While these early civilizations were flourishing in the Fertile Crescent, the people of Europe were still hunter-gatherers. But the spread of agriculture was unstoppable. The expanding population of farmer/herders moved into surrounding territory, sometimes fighting and conquering the hunter-gatherers who lived there, sometimes intermarrying and absorbing them, and ultimately displacing them. Sometimes (but less frequently), hunter-gatherers who lived near farmers noticed the advantages of the new lifestyle, borrowed seeds, animals, and ideas, and became farmers and herders themselves.

At first, agriculture spread to the east and west, for two reasons. First, the plants and animals that humans were cultivating in the Fertile Crescent could thrive best in a

fairly narrow east-west band of latitude. That's because these crops and creatures had evolved over millions of years to survive in specific environmental conditions – a certain amount of sunlight, summer-winter temperature range, and altitude above sea level. If people tried to plant seeds too far north or south of that latitude, they didn't grow as well – if at all. For this reason, agriculture and herding spread mostly to the east and west, to regions with similar environmental conditions. The map below shows the east-west band of latitude along which these innovations spread from their origins in the Middle East.



Second, the Fertile Crescent is part of Eurasia, a massive continent combining Europe and Asia that happens to be oriented on an east-west axis, with more than 8,000 miles from one end to the other. The map below shows how different this orientation is to the north-south orientation of Africa and the Americas. Australia is a different case – its geographic orientation is less important than its isolation from Eurasia.



The east-west axis of Eurasia meant that as farming and animal domestication spread outward from their origins in the Fertile Crescent, there was plenty of room for the plants and animals to flourish in their “comfort zone.” The result: farming spread quite rapidly from one end of Eurasia to the other, and also into northern Africa, whose climate was similar.

What about the people in the Americas, Australia, and the vast area of Africa south of the Sahara Desert? Agriculture was discovered independently in some of these regions, and the Fertile Crescent’s “starter kit” of seeds and animals was eventually imported and adapted, especially after Columbus’s first voyage. But for three reasons, people on the other continents lagged behind Eurasia. First, they had fewer and less productive wild plants that could be domesticated and no domesticatable wild animals (except for the llama/alpaca in South America).

Second, because Africa and the Americas have a north-south orientation, the areas where farming was developed didn’t enrich each other. In the Americas, the two independent homelands of agriculture (Mexico and the Andes/Amazon region) were at very different latitudes and had quite distinct environments. By contrast, the two Eurasian agricultural homelands (the Fertile Crescent and China) were at a similar east/west latitude and plants and seeds carried from one to the other could flourish, broadening the variety and productiveness of farming across the continent.

Third, people across Eurasia were constantly trading, competing, fighting, and conquering each other, which further accelerated the development and spread of farming, skillful use of animals, weapons, political organization, writing, and increasingly advanced technology. The result: the development of advanced civilization proceeded much more quickly on the Eurasian continent, and the civilization gap between Eurasia and the rest of the world steadily widened.

Infectious Diseases

Domesticated animals brought great benefits to early farmers, but there was a major downside. Many people lived in close quarters with their cows, pigs, chickens, and ducks, and it was inevitable that some animal germs found their way into humans. A variety of human diseases evolved, including measles, tuberculosis, and smallpox (from cattle), influenza (from pigs and ducks), pertussis (from pigs and dogs), plague (from rats in heavily populated areas), and chickenpox, typhus, cholera, diphtheria, and yellow fever.

The worst of these diseases had the following characteristics: (a) They spread quickly from an infected person to healthy people nearby, so an entire population could get sick in a matter of days; (b) The diseases were “acute,” meaning that people who caught them either died quickly or recovered completely; and (c) Those who recovered had antibodies or inherited immunity that protected them against future infection from that disease. Over the years, millions of people in agricultural communities perished from these diseases, but those who survived had acquired immunity and most were able to live near animals and infected people without getting sick. This had fateful consequences

when people who had domesticated animals came in contact with people on other continents who didn't.

Over the centuries, a succession of major agriculture-based civilizations flourished in Eurasia. In each one, epidemic diseases caused countless deaths – but the survivors had immunity and population growth resumed. In Europe, the plague wiped out almost one-third of the population in the mid-1300s, but within a century, the Renaissance was in full swing and by the end of the 1400s, European explorers were getting ready to explore the world. By contrast, people on the other continents, without daily contact with domesticated animals, didn't have major epidemic diseases and didn't develop immunity.

Eurasia Takes Off, With Europe the Latecomer

As agriculture and animal domestication spread east and west across Eurasia, fewer and fewer people lived as nomadic hunter-gatherers. The hallmarks of civilization spread: agricultural tools (including plows pulled by animals); horses for transportation; labor-saving devices (like carts to transport food and pumps to irrigate fields); writing and ways of storing information (different in each area); ships (some capable of crossing seas and oceans); political organizations and centralized government; and increasingly developed religions and works of art.

As the human population increased, people needed to spread out, and there was increasing contact, competition, and conflict between neighboring groups – which brings us to the subject of weapons and military strategy. Developing and constantly improving swords, daggers, lances, metal armor, and eventually gunpowder, muskets, pistols, and cannons – and ways of using them to win battles – was a major area of specialization in Chinese, Arab, and European civilizations. Craftspeople learned how to use copper, then bronze, then iron, and finally steel to forge stronger and more lethal weapons. As tribes and nations competed and fought each other, there was an arms race to get an advantage over enemies, and weapons and strategy became more and more sophisticated. By contrast, civilizations in Mexico used small amounts of silver and gold only for ornaments; civilizations in the Andes used silver and gold in similar ways, and they were just beginning to make bronze (a copper alloy) for tools at the time the Spaniards arrived and conquered them.

About 1,000 years ago, the Arabs and Chinese were the most innovative and powerful civilizations in Eurasia and Northern Africa. China made many technological breakthroughs, including gunpowder, ironworking, paper, printing, political organization, and ocean-going ships. In the early 1400s, China had large fleets and sent ships to explore the east coast of Africa. But then in 1433, the Chinese emperor decided the country would turn inward, put a stop to exploration, and ordered the shipyards disbanded. Because of China's centralized government, one man had enough power to alter the course of history.

China was rivaled in development and sophistication by the Arabs, whose civilization was responsible for important inventions including the decimal number system, algebra, degree-granting universities, hospitals, disinfectants, windmills, cranks to lift heavy objects, and coffee. But the Middle East, where agriculture began, became less and less productive as people cut down forests and over-farmed the land, allowing soil that had been productive to become salinized and eroded. Over the years, the agricultural base that was essential to a great civilization withered and the Arab people fell behind.

For centuries, Europe remained an undeveloped backwater, with most people living as hunter-gatherers. But the ideas, crops, and domesticated animals of the Fertile Crescent eventually reached the western end of the continent. Advanced civilization took root in Greece and Rome and then in other areas, and the region quickly caught up with Chinese and Arab civilizations. Europe's geography played a key role in this rapid acceleration. The region had lots of mountains, valleys, peninsulas, river basins, and large islands (see the map below), with countless tribes and chiefdoms trading, competing, and fighting with each other – and no single ruler was able to take over the whole region. Europe's chronic disunity was an engine of development, producing myriad innovations in weapons, techniques of warfare, shipbuilding, farming, art, and literature.



Physical Europe www.ed101.bu.edu

By the 1400s, Western Europe was a highly developed region, with an expanding population and the desire and capability to explore and establish colonies on other continents. China was on a par with Europe in almost every way, but it was much more politically unified, largely because its geography made travel and internal conquest easier. This ended up changing the course of world history: as we saw, one emperor was able to make the decision to end the construction of China's ocean-going ships and abandon the idea of expansion and colonization. This, along with the decline of the Arabs' agricultural base, left the high seas wide open to the Europeans.

The True Explanation for European Domination

Let's return to the question posed at the outset: Why were a few relatively small countries in Western Europe able to conquer most of the world, subjugating millions of indigenous people and setting a pattern of human inequality that persists to this day? By now it should be clear that it wasn't because of the Europeans' intelligence, creativity, cruelty, or divine guidance, or because of the innate inferiority of the people they conquered.

Rather, European dominance can be traced back to the geographic accident of the edible plants and domesticatable animals that happened to be in the Fertile Crescent 11,000 years ago. Those plants and animals gave the hunter-gatherers who were lucky enough to be in that region a head start in making the crucial shift to agriculture and animal husbandry. That in turn kick-started a series of innovations in farming, transportation, writing, weapon development, and government that spread along the east-west axis of Eurasia, eventually reaching Western Europe. Those developments, along with China turning inward and Arab civilization losing its agricultural base, meant that by the late 1400s, Europe's technology and social organization were the most advanced in the world – and Europe's expanding population was bursting at the seams.

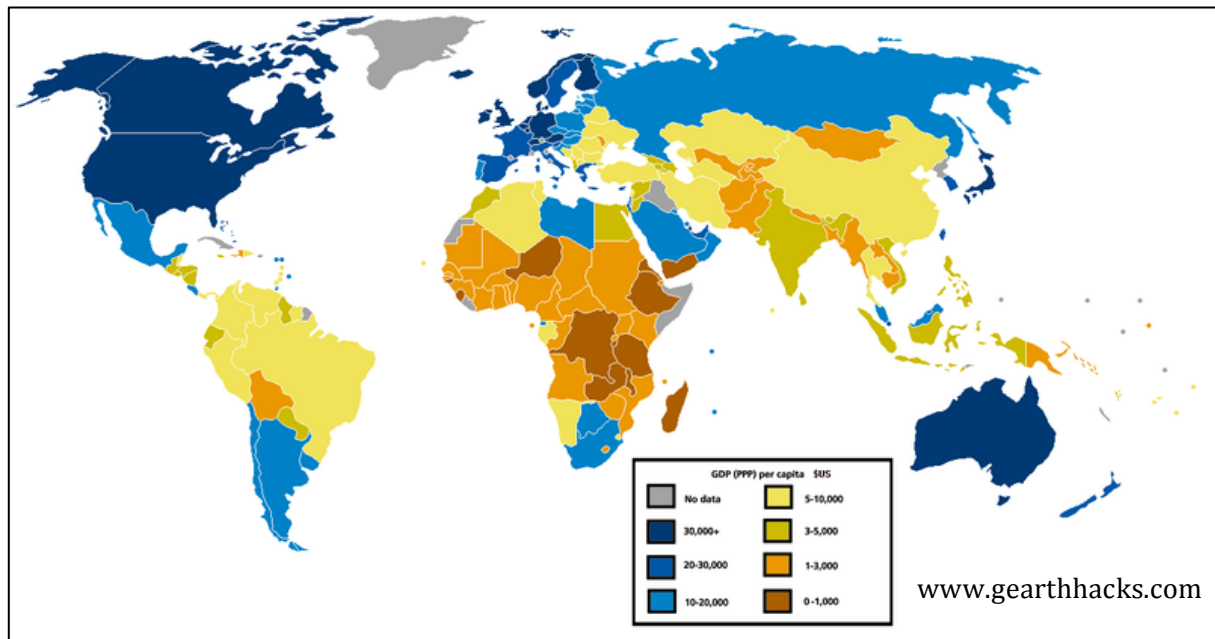
Meanwhile, the people who lived in the Americas, tropical Africa, and Australia were much less fortunate in the plants and animals available to them. There were several major civilizations in Central and South America and Africa, but because of their late start, they were thousands of years behind the Europeans in weaponry, ships, writing, political organization, and other technologies. The indigenous people on these continents had the same level of intelligence as the Chinese, Arabs, and Western Europeans, and survival in those regions required just as much applied brainpower. But they were many years behind in developing the kinds of technology that would have allowed them to beat back the invaders who landed on their shores.

The Europeans had many advantages, but their most potent weapon turned out to be one they weren't even aware of when they set sail: microscopic germs. The Europeans unwittingly passed these to the indigenous people they encountered, who were extremely vulnerable because they hadn't lived close to domesticated animals. Diseases were responsible for *far* more deaths among indigenous people than the Europeans' weapons and military tactics. Here are a few examples of the devastating results:

- Hispaniola had a population of 8 million before Columbus's first visit in 1492. By 1875, there wasn't a single surviving indigenous person on the island.
- By 1618, Mexico's original population of about 20 million had plummeted to about 1.6 million.
- There were about 20 million indigenous people in North America before the arrival of the Europeans; as many as 95 percent died of imported diseases.

By contrast, Europeans picked up no significant diseases in the Americas. In tropical Africa, Asia, and New Guinea, they were sickened by malaria, yellow fever, and cholera, which slowed their conquest of those areas and were unintentionally carried to tropical areas of South America. But with the development of medicines and a better understanding of disease germs, the European conquest continued.

And so it was that germs, ships, weapons, writing, government, and other artifacts of advanced civilization allowed Europeans to take over six continents – not because they were better but because their ancestors were lucky. The languages and cultures that dominate much of the world – as well as striking economic inequality among nations – can be traced back to this story. The map below shows the current distribution of wealth worldwide, with dark blue and light blue being the most affluent, browns and yellow the poorest. The legacy of conquest and colonization is clear.



What will the next few centuries bring? Will the people of the world become more equal as the benefits of advanced civilization spread more widely? Or will the gulf between the haves and have-nots continue – even widen? There are troubling signs: climate change is projected to have a more negative impact on developing countries than on those that are more technologically advanced. How will we deal with these challenges? Will the descendants of the European conquerors be part of the solution – or part of the problem? These questions must be addressed in the years ahead.

A Teacher's Guide for *Guns, Germs, and Steel*

Following the Wiggins/McTighe *Understanding by Design* format, a curriculum unit on *Guns, Germs, and Steel* might be framed around these Understandings, Likely Misconceptions, and Essential Questions:

Understandings

The shift from hunting and gathering to agriculture and animal husbandry that started in the Fertile Crescent was a major turning point in human history.

The changes brought about by farming are auto-catalytic – that is, they sustain themselves and lead to further advances.

The Fertile Crescent happened to have an abundant supply of wild plants and animals that were suitable for domestication. This gave the hunter-gatherers who happened to be in the region a head start developing agriculture and moving more quickly toward advanced civilization than people in other parts of the world.

One of the key results of a settled agricultural community is that some people are able to devote time to specialized occupations other than day-to-day survival, which speeds up the development of advanced agriculture, architecture, transportation, weapons, and much more.

New ideas tend to spread rapidly from one area to another as people compete with – and conquer – neighboring tribes and civilizations.

If a population has enough food and shelter and the time to innovate and improve the quality of life, its population tends to expand and it needs more territory – hence the spread of more-advanced civilizations.

Plants and animals evolve over millions of years to survive in a fairly narrow environment – i.e., latitude, temperature ranges, climate, hours of sunlight.

The east-west axis of Eurasia was important in the rapid spread of agriculture from its origins in the Fertile Crescent, while the north-south axis of Africa and the Americas meant that the spread of civilization took longer. For a long time, Australia remained isolated.

Living close to domesticated animals results in people getting a number of deadly infectious diseases, resulting in millions of deaths – but over time, populations develop immunity.

Chinese and Arab civilizations had an early start, but for different reasons, they were overtaken by the Western Europeans in the race to explore and colonize other continents.

Western Europeans conquered most of the world not because they were smarter, braver, more cruel, or divinely blessed, but because the Eurasian head start in agriculture and animal husbandry gave them numerous advantages over the populations they encountered.

Likely Misconceptions

Every continent had the same potential for developing advanced civilization.

Agriculture was developed in only one part of the world.

The Europeans were smarter and morally superior to the indigenous people they encountered on other continents.

Europeans conquered other parts of the world only because they were superior militarily.

Europe's cold winters spurred innovation and this explains the region's technological superiority.

The indigenous people of Africa, Australia, and North and South America were less intelligent and industrious.

Essential Questions

Why was the shift from hunting and gathering to agriculture and animal husbandry such a major turning point for humans?

In what ways was this shift positive, and in what ways was it negative? Are people in more highly developed civilizations happier than those who are less developed?

What are the advantages and disadvantages of domesticating wild animals?

What happens when very different cultures collide after thousands of years of separation?

What if China had not turned inward in the 1400s? How would that have affected world history?

How is the story of world history affected by the fact that it's been written largely by the "winners"?

How would the world be different if the Europeans had been defeated and pushed into the sea by the native people they encountered in North and South America, Africa, and Australia?

Will the inequality gap between the developed and developing world continue? If not, what might change the historical dynamic?

Resources for Further Study

The 2007 revised edition of *Guns, Germs, and Steel* – Available on Amazon at <http://amzn.to/1M9s8s4>

Jared Diamond's website – http://www.jarediamond.org/Jared_Diamond/Welcome.html

Diamond's summary of *Guns, Germs, and Steel* with updates:

http://www.jarediamond.org/Jared_Diamond/Guns,_Germs,_and_Steel.html

The three-part National Geographic film dramatizing *Guns, Germs, and Steel*:

<http://www.pbs.org/gunsgermsteel/>

<https://www.youtube.com/watch?v=QwZ4s8Fsv94>

https://www.youtube.com/watch?v=iR8OaVDB3_E

<https://www.youtube.com/watch?v=opZD8237rJ8>

Lesson plans on the PBS videos:

<http://www.pbs.org/gunsgermsteel/educators/>

Links to resources on European advantages:

<http://www.pbs.org/gunsgermsteel/variables/index.html>

An interactive map showing the basic argument of *Guns, Germs, and Steel*:

<http://www.pbs.org/gunsgermsteel/world/index.html>

A history teacher's curriculum unit on *Guns, Germs, and Steel*:

<http://historycrew.com/?p=66>

A Common Core-aligned unit on *Guns, Germs, and Steel*:

http://asset.studysync.com/library/25/lesson_plan.pdf