

The Making of the Modern World

COURSE: Intermediate –Senior History CURR335

SPECIFIC EXPECTATION(S) EXPLORED:

From the Ontario Curriculum, Grades 11 and 12: Canadian and World Studies, 2005, (revised), <http://www.edu.gov.on.ca>

These specific curriculum expectations are touched upon in each of the six lessons in this unit based on the nature of the topic and how the lessons are organized.

Students should analyse the impact of Western colonization on both the colonizer and the colonized; the exploitation of resources and indigenous populations; the exposure to highly contagious diseases.

Explore historical understanding through viewing events in chronological order and within a specific periodization; and the rise of the modern nation state in the West; to employ concepts and theories appropriate to historical inquiry (e.g., chronology, cause and effect short- and long-term consequences); and to make connections between historical situations studied in the course and similar situations in new or unfamiliar contexts(e.g., by identifying chronological ties and cause-and-effect relationships, and in comparison and contrast).

ABSTRACT: The main objective of this unit of lessons is to encourage a deeper appreciation of the subject of History in senior academic students by a depiction of the innovative and stimulating theses of Alfred Crosby as outlined in his text *Ecological Imperialism*. Each Lesson will consist of a further elaboration of the evidence he employs.

KEYWORDS: This series of lessons focuses upon higher levels of thinking and uses the concepts of chronological order; historical inquiry; cause and effect; and comparison and contrast.

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Specific Curriculum Expectations: The Ontario Curriculum, Grades 11 and 12: Canadian and World Studies, 2005, (revised)

These specific curriculum expectations are touched upon in each of the six lessons in this unit based on the nature of the topic and how the lessons are organized.

Change and Continuity Pg 196

Chronology and Cause and Effect

Explain how viewing events in chronological order and within a specific periodization provides a basis for historical understanding.

Communities: Local, National, and Global Pg 194

The Nature of Interactions Among Communities

Analyse the impact of Western colonization on both the colonizer and the colonized (e.g., enrichment and impoverishment, exploitation of resources and indigenous populations, cultural transfers, exposure to highly contagious diseases, introduction of non-indigenous species, assimilation and acculturation, ethnic cleansing, and the revival of commitment to indigenous cultural identities).

Social, Economic, and Political Structures Pg 201

Political Organization

Explain the factors that contributed to the rise of the modern nation state in the West and subsequently in the rest of the world (e.g., the military and price revolutions, the renaissance monarchy and national administrative bureaucracies, political revolution, romantic and liberal nationalism, wars of national liberation).

Methods of Historical Inquiry and Communication Pg 202

Interpretation and Analysis

Analyse information, employing concepts and theories appropriate to historical inquiry (e.g., chronology, cause and effect, short- and long-term consequences).

Methods of Historical Inquiry and Communication Pg 202

Interpretation and Analysis

Analyse historical events and issues from the perspectives of different participants in those events and issues (e.g., the use of child labour during industrialization from the perspective of the

working child, impoverished families, factory owners, child welfare advocates; the Cold War from the perspective of Stalinists, McCarthyites, Soviet and American dissidents, opponents of the arms race).

Methods of Historical Inquiry and Communication Pg 203

Interpretation and Analysis

Make connections between historical situations studied in the course and similar situations in new or unfamiliar contexts (e.g., by identifying chronological ties and cause and effect relationships, and using comparison and contrast)

Primary Historical Concept Explored: Historical Significance.

In Lesson 1 of this unit we want to establish the idea of historical significance as a narrative – i.e. something can only be significant if it is part of a greater story. This unit of six Lessons is also an absolutely momentous example of Big History.

The students and teacher can then begin creating a narrative of the making of the modern world as told by Alfred Crosby while continuing the discussion of what is most significant as each of the six lessons unfold. This will give students the opportunity to think about what is most significant themselves about the origins of European Civilization, the Neo-Europes, in America, with follow-up relationships with Canada and its storied History.

Throughout, the materials presented are to be analyzed and evaluated leading to conclusions being drawn as cause and consequences remain a uniform and continual focus for students. An objective is to discover emerging themes in the growth of civilization in Neo-Europes, with a strong focus on the historical reasons for European global conquest. Student input and contributions are essential as this contributes to a dynamic, progressive and appealing unit.

Lesson 1:**Course:** CHY4U**Title:** Genesis; in the Beginning

Overview: Introduce the class to Alfred Crosby's *Ecological Imperialism* and begin studying his thesis of how the modern world was shaped in a major fashion by Biology and Geography. Students will begin to understand that history has a greater scope than simply "what was written by the winners". Lesson 1 starts at the very beginning, Pangaea, and briefly covers the origin of civilization. The majority of the class entails studying the Norse people a.k.a. Vikings and their attempts at colonization. Students use the concept of Causes and Consequences to note the integration and validity of the related tie-in of History with Biology and with Geography. Since a Socratic Approach is a key part of practice in this unit, and subsequent classes commence with a review of previous class materials, suggested times in Lesson Plans will be fluid.

Learning Goal:

By the end of this lesson students should be able to:

- Summarize what history is and different ways of studying it
- Define the term Neo-Europes and be able to outline where they are located and who inhabits them
- Illustrate the chronology of the beginnings of civilization and how this gave certain geographic regions a head start over others
- Explain why the Norse were unable to colonize the New World

Curriculum Expectations:

- Expectations are to analyse information, employing concepts and theories appropriate to historical inquiry (e.g., chronology, cause and effect short- and long-term consequences)
- Make connections between historical situations studied in the course and similar situations in new or unfamiliar contexts (e.g., by identifying chronological ties and cause and effect relationships, and use in comparison and contrast)

Materials:

Textual - Teacher should have read at least the first few chapters of Alfred Crosby's *Ecological Imperialism*: "Prologue," "Pangaea Revisited," and "The Norse and the Crusaders" and have a working knowledge of them. Visuals should also provide data, whether in the form of a short film clip, PowerPoint, or handouts for students to share. These should include visuals of Pangaea and how it split to its present day location (BLM 1.1), the Fertile Crescent (BLM 1.2), a map of Vinland, Markland, Arlluland, Greenland, and Iceland (BLM 1.3), and a *knörr* (the Viking boat) (BLM 1.4).

Plan of Instruction:**Warm Up: (7 minutes)**

The way I introduced this lesson when I taught it on my first practicum was by beginning with the story of my history moment - i.e. the moment I fell in love with history. This linked well because this work by Crosby was what made me fall in love with history. I was specifically captivated by the greater depths this work introduces in history. Begin by creating some sort of flare around this depth as I did with my story, my personal narration, which my students absolutely loved. As well, they were impressed and motivated to participate in the learning process as the book is a university level one, a text which I studied for an entire semester in the first year of undergraduate studies at Queen's. The students saw this as both challenging and relevant and it was a hugely successful hook for my grade 12 university-bound class.

Introduction: Discussion: (5-10 minutes)

Inquire what is history? The expected answer is the semi-joking response of HIS story and what was written by the victors. Break down the origins of the word for the class. The term history is derived from the Greek word *Histor* meaning wise man and *Historia* meaning inquiry. This approach invites the opening up of the idea of a higher level thinking in history. It does not only help us learn and understand better, but inquiry is literally History.

Now explore with students what ways we can study History. Students' knowledge on this will vary from class to class and teacher to teacher. I had been introducing different mediums to study history each class so my class had a good background for this question. The basis for this approach is to widen their understanding and open their eyes to history being a vast subject with many different means of approach.

Write these items discussed on the board as you list them off so you may return to them throughout the unit. You should at least be able to get documentation out of them a.k.a. "history is written by the victors". We are also looking for archaeological evidence which supports historical tropes, and this approach can be followed fairly easily based on common knowledge from previous grades of artifacts found, such as the pyramids.

Again, visuals are effective and welcome and give the students a feeling of security and their input and recognition assists in scaffolding. The last three areas we are looking to cover are art, oral, and biological – the last of which is the major theme we are introducing to the class through Crosby's scholarship. With a combination of these approaches, we can study the past at greater depths than ever before.

Shared Discussion Part 2: (15 minutes)

Using inquiry based instruction, cover Crosby's conclusions in his *Ecological Imperialism*. Begin narrative on board having students decide what should be added to the narrative and how

important they think it is to the development of the modern world. Students herein encounter the idea of Big History with this innovative, influential and brilliant thesis of Crosby

We must first inform students what we are referring to as the modern world. Introduce the idea of Neo-Europes locations which Europeans conquered and populated. Teacher can begin by asking what North America, southern South America, Australia, and New Zealand have in common. The first thought that comes to the mind of most people is they are populated by “white” people as students in my class said. And this is a comfortable starting point being precisely A SOLID connection WITH WHICH you want them to begin. The Neo-Europes are locations which are now primarily populated by Caucasians with European ancestry who conquered and repopulated these locations. This unit will cover how and why this occurred.

In order to understand how the modern world came about, we must start at the beginning. Ask what the beginning was?

Pangaea

Have students expand on what Pangaea was.

Refer to image/video of Pangaea splitting into modern locations. (BLM 1.1)

Ask deeper questions to guide student learning. Who lived on Pangaea? What would life have been like there? How would it differ from life today? These questions assist in eventually getting to the point that the splitting of the lands allowed for the creation of more diversification of plants and animals.

Ask about the beginning of civilization. Where was it? What was life like? What spurred growth? What did we have before civilization? (Hunter/Gatherer) What is the major difference? Refer to image of Fertile Crescent (BLM 1.2). Describe and identify land and animals best suited for agricultural success giving them a head start over the rest of the world, and an insurmountable advantage in their successful emigration to vast regions of the globe.

If this is where civilization began, where would they go next? East/West Europe/Asia/Africa.

Could they get to the Americas and Oceania? Again the concept of a “head start”.

What does this “head start” give them? It gave them more time to develop/evolve.

Teacher-Direct Instruction: (7 minutes)

Begin with information on the Norse (“Vikings”).

- Settled Iceland 870 BCE (first overseas European colony)
- Approx 1000 km from Norway, its motherland

- Was close and had no natives, was inhabited by a few Irish minsters; therefore, easy to colonize
- Approx 1000 BCE Leif Erikson visits three lands: Helluland (Baffin Island), Markland (Labrador Coast), and Vinland (north tip of Newfoundland) – refer to image (BLM 1.3)

How were they able to make it to North America?

- Unique skill of ship building
 - o Used larger merchant vessel, *knörr* – refer to image (BLM 1.4)
 - Ask class what they think of the ship? Does it look comfortable? Would they feel safe crossing the Atlantic in one? How many people do you think it could hold?
 - Therefore, what disadvantages do you think this would cause for potential colonizers? Strong student participation is encouraged and necessary in analysis, synthesis and in drawing conclusions to these questions.

Probing Thematic Questions:

What problem did the Norse face in North America they did not have to worry about in Iceland?
Native population.

Visual Record:

Create a chart listing advantages and disadvantages the Norse had over the Native population [This exercise foreshadows a parallel chart for European global expansion/conquest and is an excellent example of parallels in History and the function of Causes and Consequences].

Chart:

Norse Advantages:

- Wheel – did not provide advantage in battle, however
- Metal (primitive ironworks – only very minor advantage in battering opponent - e.g., stone club just as effective. Smashing a skull provides the same result as slicing a head off. [This will contrast greatly with the weaponry of the Conquistadors when comparisons occur later in the unit].

Norse Disadvantages:

- Not capable of mounting large expeditions
 - o Largest was three vessels with approx 65-165 people
 - o Inadequate ability to transport needed tools, clothing and food as settlement supplies
 - o In contrast, Columbus led a fleet of 17 ships and 1200-1500 people [as well as a voluminous supply of cargo] when he returned to the Americas in 1493

- Total population of Norse was under 400,000
- Lacked agricultural surplus, large populations, and capital for empire building
- Competition too great and created hostilities upon first contact in which they killed eight of the first nine natives they met.
- *Knörr* was lacking as suitable vehicle for ocean-crossing expeditions despite being impressive for the time.
 - o It was small and difficult to maneuver. Many accounts of getting lost for days
 - o No room to manoeuvre on board and little protection from the elements

Conclusion: (5 minutes)

At this time, it is imperative to probe reception of new material to assess progress and answer pressing questions about the topics covered in this Lesson 1 and to foreshadow upcoming lessons.

Lesson 2:**Course:** CHY4U**Title:** Back to the “Holy Land”

Overview: Begin with a brief review of the previous class to assess students’ current knowledge and help fill any gaps before beginning again. Begin with case study 2, the Crusades. Compare and contrast to the Norse and assess why both failed to colonize their desired targets. Finish with case study 3, the Fortunate Isles. Class procedure continues to cover the Primary Historical thinking concept explored and to enhance the concept of Historical Perspectives. Cover the historical significance through the continuation of the narrative we began last class.

Learning Goals:

By the end of this lesson students should be able to:

- Compare and contrast both the Norse and the Crusaders attempts at colonization and why they failed
- Extend their knowledge of why the Norse and Crusaders failed to hypothesize what is needed to succeed
- Express the importance of the Canary Islands to future expeditions

Curriculum Expectations:

Methods of Historical Inquiry and Communication Pg 202

Interpretation and Analysis

Analyse historical events and issues from the perspectives of different participants in those events and issues (e.g., the use of child labour during industrialization from the perspective of the working child, impoverished families, factory owners, child welfare advocates; the Cold War from the perspectives of Stalinists, McCarthyites, Soviet and American dissidents, opponents of the arms race).

Materials:

Again, teacher must have strong familiarity with Alfred Crosby’s *Ecological Imperialism*, have read up to the “Fortunate Isles” chapter, and have a working knowledge of it and the Crusades. Provide visuals as hooks to assist learning and engage students. Be sure to have a map depicting the four states the Crusaders established in the Middle East (BLM 2.1) and as well as a map of the Canary Islands (BLM 2.3) which shows their proximity to Spain and Portugal. It would also be recommended to provide some fun visuals to engage students, such as puissant crusaders (BLM 2.2) and prolific rabbits over running an island (BLM 2.4).

Plan of Instruction:**Warm Up: (7 minutes)**

Show video clip (*Kingdom of Heaven*). This powerful film fascinates students and immediately captures their attention.

Shared Discussion: (10 minutes)

Begin discussing prior knowledge of the Crusades. Students will probably have acquired all their knowledge from movies like the *Kingdom of Heaven* or the *Assassins Creed* video game. As the discussion ensues, bring up the Big 6 concept of Historical Perspectives. What picture do we have in our minds when we think of the Crusades? Who were the “good guys”? Do we find ourselves sympathizing with one side over the other? Discuss the important concept of “What perspective do we hear the story from?”

Teacher led instruction: (15 minutes)

Data:

1095 First Crusade is launched.

Seven to eight Crusades followed over the next two centuries, depending on one’s definition. Hundreds of thousands of Western Europeans marched and sailed to the “Holy Land”.

Have class recall information about the Norse and why they did not succeed.

Then note the major differences between the Crusaders and the Norse [Compare and Contrast]

- Crusaders knew the land they were going to and the people in it
- Knew the body of water and how to navigate it
- Had a large constant population
- At peak 100 000 people in Jerusalem

The Crusades still were unsuccessful, however.

Participatory Discussion: (20 minutes)

Have the class share their ideas on today’s topics and copy down onto the board the Crusader connections to the Norse. By involving students in this activity, they have the opportunity to demonstrate and build understanding of reasons why colonization failed and how future colonizers were able to succeed where the Norse and the Crusaders did not. Include direct discussion with questions such as where were the locations the Norse were going vs. the Crusaders? What is familiar to us about the location the Crusaders were invading? Students should be able to offer opinions as to why invading and conquering the “Holy Land” territory might be an immense challenge for the Crusaders. What region of the world is the “Holy Land”? Why might this pose a problem for the invaders?

Board Notes:

Reasons on board should include:

- Still were going out on a limb, therefore, needed constant support from Europe
- Long marches and poor weather and numerous attacks along the way
- Muslims (known as the Saracens to the Crusaders) quit quarreling, banded together
- Christians were reluctant to stay after conquering because of the climate and distance from home
- *Subject to new climate, new diet, malnutrition, exhaustion, and new pathogens; this evidence makes this the ideal time to introduce this Crosby thesis.*
- Disease wiped out Crusaders especially women and children making it nearly impossible to maintain hold over conquered land and entirely impossible to colonize – Historical Perspective of women and children [Discuss the role and contribution of Woman and children as being vital for the conquest and growth of civilizations.]
- 1291 Muslims took Acre, the last Crusader stronghold

Teacher-Led Student-Sharing Summation: (6 minutes)

First effort of Western Europeans settling outside Europe failed

Emphasize the cause(s) of failure. Again recap (repetition, amplification) what you and the students have covered being sure to highlight the climate and diseases which came from travelling to the birthplace of civilization. Student quickly become comfortable with Crosby's thesis when the clear fact, details, evidence is placed before them.

Crusades are important to history simply for the military excursions, but it was also extremely significant as an opportunity for cultures to overlap and share. New tech was brought back from the Middle East and Asia which would be pivotal in future exploration and colonization.

Emphasize that major technological advancements were the compass, stern post rudder, and lateen sails. Without them, conquest of the New World would have been impossible.

Teacher-Guided Lesson Pivotal Climax: (15 minutes)

Introduce new concepts or theme – Beginnings of Success.

Fortunate Isles.

The Canary Islands – training ground for exploration.

Refer to image of Canary Islands (BLM 2.3).

What do you notice about the islands?

How about the location? What countries is it close to?

Spanish and Portuguese used to travel there frequently.

Found it had phenomenal fertile soil and lots of rain and moderate temperatures.

Specific Islands they attempted to colonize

- Puerto Santo and Madeira

Attempted colonization of Puerto Santo first – introduced rabbits but they flourished so much they over ran the island and destroyed the environment and the people departed (BLM 2.4).

Learned from their mistake and were able to flourish on Madeira

- Pig and cattle thrived
- Also introduced honey bees which were a staple until sugar took over as sweetener
- Exported successfully throughout Europe
- First prosperous colonial trade
- Was so prosperous that in 1402 Portuguese decided to conquer the island
- Fought until 1496 opposed by 80 000 natives
- Superior weaponry defeated the Aborigines; European cannons, horses, steel, swords and muskets were able to be developed and improved during a long span of warring periods. [Being civilized and having a long history of domesticating animals, improving war implements, and operating with skillful military tactics, contributed massively to the invader's superiority]
- Plants, animals, and microlife thrived in favour of Portuguese – typhus spread among natives multiple times

Summation: (10 minutes)

As the teacher and students cover this material, continually link back to the failed cases and what the Portuguese did/had in their favour that the Norse and Crusaders did not [Compare and Contrast].

- Proximity
- More advanced weapons
- Numbers
- Disease

Europeans learned a lot from the successful conquering of Madeira – it served as a laboratory for European expansion. Have class try to construct what these might be.

- Learned European plants and animals could live and thrive in foreign countries
- Could defeat and eradicate indigenous populations
- Ships and firearms were crucial
- Biological advantage that Norse and Crusaders did not

- Gave confidence to go across oceans to conquer more lands

Lesson 3:**Course:** CHY4U**Title:** Prevailing Desires**Learning Goal:**

The Learning Goal of lesson three places emphasis on the use of critical thinking skills to advance knowledge about historical improvements in modes of transportation, speed of travel and the ability to travel more rapidly to most regions of the earth. Students must be adept at detecting how knowledge of the waves and wind – as sources of energy to drive vessels across oceans – promoted colonialism by Europeans. As well, students must be able to consider the causes of success and failure of Neo-Europes to develop in different regions.

Curriculum Expectations:

To analyse the impact of Western colonization on both the colonizer and the colonized.

Explore Change and Continuity. Pg. 196 explains how viewing events in chronological order and within a specific periodization provides a basis for historical understanding.

Analyse information, employing concepts and theories appropriate to historical inquiry (e.g., chronology, cause and effect short- and long-term consequences).

Overview:

Again, begin with a recap of the previous lesson and our historical narrative highlighting anything the students view to be significant with the new perspectives and cases added. Answer questions or clarify points, then proceed to new material. Lesson 3 will be on “Winds” and “Within Reach, Beyond Grasp.” This covers the technological factors that assisted the Europeans to make it to the New World and eventually around the entire globe. Class will discuss the three major explorers who contributed to this. As well, other factors, such as biological, will be emphasized as to why Europeans were unable to conquer certain regions of the world. Finally, this lesson will approach the Big 6 concept of Cause and Consequence and how human interactions with the environment over time gave mariners the confidence, knowledge to understand how to sail around the world. Moreover, focus is to be placed on the Big 6 concept of ethical dimensions in which we will attempt to further our understanding of the ethics of the Europeans who were attempting to conquer lands around the world and how this plays a role in the way our moral compass has developed.

Materials:

Teacher must have read the chapters “Winds” and “Within Reach, Beyond Grasp,” from Alfred Crosby’s *Ecological Imperialism*, and have a working understanding of them. Visuals should be

provided, preferably in both the form of handouts and a PowerPoint. Visuals should include a picture of Columbus' ship, the Santa Maria (BLM 3.4), as well as the previously used picture of the *knörr* for comparison (3.3). An image - or even better - a video illustrating the movement of the trade winds is crucial to the understanding of this lesson (BLM 3.1 can work for this as well). Maps of the journeys of two of the major explorers to be covered, Columbus (3.1), Da Gama (3.2), should also be provided to help students understand how they used the winds. And, lastly, distribute a geographic map depicting the tropic and temperate regions of the world (3.5).

Plan of Instruction:

Warm up: (2 minutes)

One large paper airplane constructed by teacher or a "gifted" student gently lofted around room, as students discuss modern modes of transportation, including cars, airplanes, train, sea vessels, and rocket ship to space. Contrast the vast ignorance and little knowledge of global regions at this historical time and the incredible amount of time required to travel to remote regions. Class places emphasis on improvements in modes of transportation, speed of travel, and increased shrinking or proximity to all regions of the earth.

Introduction:

Class Discussion: (7 minutes)

Ask the class who has travelled a far distance anywhere in the world, and where. Follow up with how did/do you get there? How long did it take? Link their answers to Crosby's information about the ancient world. Discuss what the world was like then vs. now concerning Temperature, Climate, People, Plants, and Animals. Was illness a major factor? Did the Crusaders have appropriate medicine; do travellers now take precautions, like get a shot or take a pill before visiting remote regions.

After discussing this, go back to the time period we are studying. How did they travel then? Could they hop on a boat and just go to Hawaii, Australia, or China? What was stopping them and what would happen if they tried? If no one they knew had been there previously, how would they know where it was or how to get there?

Teacher-Led Instruction/Discussion: (12 minutes)

A major section of the lesson is to add the Wind as the last of five major reasons the Europeans were able to successfully cross the Atlantic and later the world. We have discussed the four other factors up to this point, therefore, have the class assist in listing these.

1. Desire to conquer/explore the world
 - a. Canary Islands became a laboratory to trained mariners.

2. Large Vessels, fast enough, manoeuvrable enough, could carry worthwhile freight and passengers across ocean – refer to picture of Santa Maria (BLM 3.4) and picture of a knörr (BLM 3.3) for comparison
3. Equipment and Techniques
 - a. Combined square and lateen sails, compass, astrolabe – refer to sails on Santa Maria (BLM 3.4)
4. Weaponry – portable yet effective enough
5. Wind – source of energy to drive vessels across oceans

Ask the class who the first people were to sail to America, anticipating most of the students will say Columbus, but usually there is at least one who is eager to show his/her previous knowledge of the myth that we have evidence that the Chinese actually made it sooner in a sea-going vessel. Cheng Ho was a Chinese admiral who sailed to India and East Africa three to four generations before Columbus and Da Gama duplicated this feat. We know he had small canons and thousands of people as well. So if we refer to the five reasons the Europeans were able to successfully make it to the New World, what was Cheng Ho missing? Ask: Why did the Chinese not conquer the lands that the Europeans did?

Answer: it was lack of desire. They were focused more on internal affairs and showed little interest in expansion overseas.

Show a picture of the Canary Islands (BLM 3.7) and ask the class how people would sail there from Portugal. They should see this as a silly question but insist nonetheless for them to give a route. They should draw a line straight from Portugal to the Canary Islands without thinking twice about it. The funny thing is that they would be correct. In order to get to the Canary Islands, you sail directly there.

Now take a slight change of direction with the class and bring up where the Canary Islands are again. This time, refer to the fact that they are islands surrounded by ocean. What would happen if you got lost? This was a legitimate concern for obvious reasons. The Europeans were lucky to have been able to learn about wind currents while sailing the Indian Ocean. The currents are different there than over the Atlantic, however, they were able to gain an understanding that they could harness this force to assist them in travelling large distances by water. Bring up a picture of the Indian Ocean (BLM 3.6) and ask them what they notice about it that is different from the Atlantic. Direct them to the fact that there is a lot of land surrounding it. Why would this be important when learning about wind currents? It becomes quickly established that this was an important training ground for crossing the Atlantic.

Now come back to the Canary Islands. We learned the route to get to the islands, but now ask how to return. Some students should be very confident at this point to draw a line straight back to Portugal, but some will be able to put together that you won't be able to sail back because we are

talking about wind and the wind that took you there will stop you from going back via the same course.

Teacher-Directed Instruction (10 minutes)

Introduce trade winds. Ask if any student can explain what they are and how they work. Bring up a video of trade winds showing how they move in a cyclical fashion like a carousel. See if anyone knows the difference between trade winds north and south of the equator. If they do not, refer to the way toilets flush in Canada vs. Australia. Now, again, pose the question of how to return to Portugal from the Canary Islands and have a student draw it on the map.

This made the Canary Islands a chief training ground again for the Europeans. By sailing to and from the islands, they were able to gain an understanding of how the winds over the Atlantic worked. In order to return, one must sail around the winds that blew them there and out into open water nowhere near land in order to catch the trade wind which would take you straight back east. This took faith, courage, and knowledge to do. This was the development of the Mariners or *Marinheiros* - Portuguese meaning blue water sailors. Point out that *Marinheiros* almost spells Marine Heroes and the logo for the Seattle *Mariners* showing its importance even today. The Portuguese called this crab-like sideways movement - *Volta Do Mar* meaning returning by sea.

This development would be pivotal for future explorers and would be the technique that would make it possible for Columbus, Da Gama, and Magellan to cross oceans without the trip being a suicide mission.

Visual: Display map of Columbus' route (BLM 3.1). What do we notice about the way he sailed? Where did he start? Where did he go first? His route included travelling down to the Canary Islands and then West across the Atlantic. He had to go south to go west and when he returned he had to go west and north to go east.

1492 Columbus makes it to America

1497 Da Gama (BLM 3.2) makes it around the African coast and to India. For years explorers tried to get to India by sailing around Africa but either did not make it or disappeared. Da Gama used what they had learned in the Atlantic and took a leap of faith. What problem would he have had? The trade winds didn't go in the same direction. He was the first European explorer to learn about the southern trade winds. He hypothesized that perhaps the trade winds went counter clockwise, as opposed to clockwise like north of the equator, because he was a religious man who believed that God made the world symmetrical and therefore, the south would be the reverse of the north. So he took a leap of faith just like the *Marinheiros* who returned from the Canary Islands and sailed out into the open ocean where he found the winds that took him around the Cape of Good Hope.

1519 Magellan's crew returns from trip around the world.

- Although he himself died on the voyage, his crew was able to make it around the world charting new waters and trade winds. The journey took them three years and 1 month and entailed much sacrifice. They again applied previous knowledge of the winds that was learned by the original *Marinheiros* and Columbus and Da Gama to sail all the way around the world - a feat which, according to the crew, would never be achieved again because of the strife and toll it took.

By 1600 anyone could make a voyage around the world on commercial vessels which travelled from port to port. The trip would take approximately four years.

Class Participation (8 minutes)

Class Contribution is to engage in discussion about which lands Europeans were unable to conquer despite having colonies in some for long periods of time.

Have the class recall the Neo-Europes and ask if any of them can recognize any Geographic resemblance amongst them. If not, refer to the picture showing the tropic and temperate zones (BLM 3.5) and then ask the same question. As Crosby informs us, just about every land the Europeans conquered was in a temperate region.

Why was Europe unable to conquer China, Korea and Japan?

China, Korea, and Japan had dense populations with traditions of strong central government, resilient institutions, cultural self-confidence, as well as crops, domesticated animals, microlife, and parasites similar to those of Europe

- Civilizations in those countries had been established for just as long as Europe
 - o Therefore, they were similar to Europe but did lag behind in technology allowing for European Imperialism to touch them slightly and draw off some wealth

Middle East was similar to East Asia – Have the class think back to the Crusades case and why the Europeans failed then. Discuss similar and/or different reasons. We can go back to the heart of civilization in the Middle East and to East Asia which also developed slightly before Europe. Europe gained the head start they needed to conquer the Canary Islands and other lands which we will discuss in future classes.

The Tropics: Why did the Europeans fail in the Tropics? They failed to overrun indigenous populations. The fertile soil of these regions allowed for swift agricultural development, creating skilled workers and surplus which allowing for populations to grow at great rates making them more difficult to conquer.

Tropical Asia: It was too hot for Europeans and Asia also had a long history allowing for the development of germs, insects, worms, etc. which preyed on Europeans who were new to these ills. They did not want to raise families in these conditions.

Africa: Europeans had more advantages over them than they did over the Asians, however, the land presented problems. Therefore, they needed advanced science and improving technology in their armaments to conquer foreign nations.

Took until end of 19th C to conquer Africa because:

- Settlers needed cheap repeating rifles
- Crops did poorly in new climate
- European livestock got sick
- Disease –best defense to ward off invaders
 - o To show how effective it was to not only white populations, but also people with African heritage who were not born there.
 - In the late 18th and 19th C British and Americans pushing for emancipation had freed black slaves sent to Sierra Leone and Liberia. 46% of whites who went died and 39% of blacks died in Sierra Leone. 21% died in Liberia within the first year from 1820-1843
 - Proving even African genes of individuals born outside of Africa were vulnerable.

Spend some time focusing on ethical dimensions. The class can discuss the concept of sending people back to Homeland(s), like Africa. Is this something we would do today? Was this progressive for the time? Was it a good thing? If you were born and raised in another country would you want to move to your homeland? What if you were a slave? Would you consider it to be your homeland if you had never even laid eyes on it? Would you comfortably fit in?

Summary: Drawing Conclusions. (6 minutes)

Continuing with the Ethical Dimension, go back to the topic of exploration and conquering. Why were the Europeans doing this? What have we learned from it today? How do we view the conquering of lands today? How do we view the people who conquered lands back then? Do we still see countries “conquering” lands in a different sense? If we didn’t live in a globalized world, would we know the horrors that were happening in the New World? And if we did know it, how would we have learned about it and would it impact us as much as seeing it on a television or the computer would? Do these horrors still occur today and do we ignore them despite it being on our televisions and computers? If you were a child in Europe in the 17th C would you be willing to give up luxuries such as sugar and slaves for something that was happening in a land across the ocean? Would you be willing to give up things such as bananas today for atrocities which are happening in countries around the world?

Concluding Class: (3 minutes):

Ensure there is time before class ends to continue the routine of asking and responding to any pressing questions and assess how well students are assimilating and drawing inferences as you proceed. Usually, by this point, the lessons become clear and students can anticipate and easily comprehend and enjoy their prowess at grasping new information.

Lesson 4**Course:** CHY4U**Title:** Guns, Germs, and Steel**Overview:**

For this lesson, I took parts of three (3) chapters: Weeds, Animals, and Ills, and created summaries for each of them. [This consists of a Blackline Master.] It is important to note that they are not exactly summaries but have been taken directly from Crosby's *Ecological Imperialism* as excerpts. In doing so, they do not link seamlessly, nor flow perfectly; however, it is exciting for the students to have the opportunity to read important sections/selections from a university level work without having to read its entirety. Provide handout of Columbian Exchange (BLM 4.4).

Learning Goal:

The fourth lesson plan emphasizes the intention or goal of students being capable of working independently and in small groups to gain a better ability to analyze historical texts or documents, and compile notes with which to address their classmates skillfully in a verbal report.

Curriculum Expectations:

There are several expectations which continue throughout the entire unit, including the comprehension of the historical process. However, most strongly treated in this section is enrichment and impoverishment, exploitation of resources and indigenous populations, cultural transfers; and, the most dynamic and significant: the effects of exposure to highly contagious diseases.

Materials:

BLM 4.1, 4.2 and 4.3 - excerpts directly from Crosby's book. Each of the three groups will subdivide into two, making 6 small groups in total. Advance preparation is needed, as the teacher creates a sort of jigsaw organizer - e.g. cards numbered 1, 2, 3, 4, 5, and 6 and red, blue, and green dots which are given to students upon entry into class to signal what group each is in. (This material was created by me on the computer for the 18 students in my Grade 12 History class.) Split each of the three (3) chapters into two, to shorten the reading time and difficulty level. Handout BLM 4.4 to students to further comprehension and draw lesson to the Columbian Exchange.

To repeat: as students enter class, hand each of them a card and have them sit at the respective table with their color-identified section mates. Groups 1 and 2 will be covering "Weeds;" Groups 3 and 4 "Animals;" and Groups 5 and 6 "Ills." Students have been divided into six groups to

cover three (3) Chapters – two Groups per Chapter – and now are to read their individual handout: Blackline Handout – two pages per Group – four pages per Chapter.

Group Work: Small and Medium Groups: (35 minutes)

This division of labour worked excellently. Students felt comfortable whether in a group of three or six. No one found such grouping large or cumbersome. They were intrigued by the double role they played of reporting within the small and medium-sized units. They felt comfortable in assisting one another and in connecting Crosby's ideas. This activity consumes a lot of time but it worked well and students performed at a high level, in both interest and skill.

Reading, Discussion/Sharing (10 minutes)

Crosby's material could be technical at times but posed no real problems as group members could clarify for each other, and the teacher, who always circulates throughout the class during Group Work, could assist in "shoehorning" answers. There was ample time to read one's individual passage of two pages twice and begin to connect it with the other half of the chapter material within their group. They had fun and really enjoyed piecing together the information.

Student Synthesis/Analysis (15 minutes)

Once they have finished their section, have them come together with their other chapter half to complete/discuss the chapter. [As always with Independent Group Work, teacher circles the classroom and gives timely input where appropriate and can assess when to rejoin groups or which Group may need more assistance.] Students learn about total chapter content and make a brief point-form summary of their findings and thoughts/conclusions about them.

Entire Class Activity (25 minutes)

Once the students have taught each other their own chapter, have them split into three groups by the colour on their card to teach their chapter to the other students (with their different colour coded card). Once everyone has treated the three chapters, the entire class is invited to cover what they have learned. Now, by processes of synthesis and analysis, have the class piece today's three immediate sections of the narrative together and attempt to link it to the rest of the six-lesson unit.

In my experience, the "Weeds" chapter was somewhat confusing to the class, so the class may need a bit of clarification on that chapter in particular.

Summary (10 minutes)

This is an important moment for teacher availability to link or clarify points as Crosby's text begins to apply greatly to Canadian History. One of the numerous fascinating facts revealed in this section of Crosby's book is the highlight of the Chapter "Animals" which identifies how feral Mustangs are still trapped, slaughtered, and canned in Western Canada as food for pets.

Lesson 5:**Course:** CHY4U**Title:** Conquest**Overview:**

This lesson is designed to add depth to the knowledge the class should have accumulated over the first four classes. I have designed a handout for the class to follow along to part two of the movie *Guns, Germs, and Steel* which is based on Jared Diamond's work of the same title. Diamond parallels Crosby's thesis but adds more human dimension to the narrative, and viewing a film on the subject allows for another way of learning.

The film is focused on Pizarro's conquest of the Incas and goes into great detail as to how he and the Spanish Conquistadors were able to conquer such a vast empire so easily. The movie is not exactly exciting but it is full of information the students found fascinating. The class was told the nature of the film clearly before it was shown to them. They were informed that Diamond was an accomplished professor from UCLA and spent 30+ years travelling the world researching and reading archives and he gives us a summary of all that in a short film. This should work fairly well for a grade 12 university level class, but you should still be involved by judiciously pausing the movie as you see fit, and create discussions to keep the class involved and further their learning experience.

Learning Goals:

The fifth Lesson Plan has a major Learning Goal on the skillful application of Comparison and Contrast between Alfred Crosby's work and *Guns, Germs, and Steel* by Jared Diamond. Students should reveal their skill at analysis of the visual medium of cinema to detect and describe emerging historical themes about the rise and fall of civilizations. They should increase their ability in relating how modern Canadian society emerged as a part of the progression of Western civilization.

Curriculum Expectations:

This Lesson involves and invites higher levels of analysis and the combination of disparate information into a strong fusion of the logical development of American civilization. The questions in the following handout are fairly straightforward. After the movie, you should take up the questions and expand on them to create discussions using higher order thinking. This is a serious educational film with few perks or thrills to captivate the audience; it parallels reading learned journals at University and was shown only after securing the host teacher-mentor's full approval.

Materials:

The materials for this lesson simply consists of Jared Diamond's film rendition of his opus, *Guns, Germs, and Steel*; and, to establish connectivity with Crosby. Provide a handout with questions about the film (BLM 5.1) for students to follow along with which enables them to anticipate the required responses to the questions.

Plan of Instruction:**Warm up: (2 minutes)**

As noted in the overview, introduce the movie as one that is not exhilarating but one which is packed with information that Jared Diamond has learned through 30+ years travelling the world, researching and reading archives. Attempt to draw the class in as future university students by playing up the importance of the information in this film and how it is 16 minutes of information that this professor learned over a substantial part of his life.

Introduction:

The introduction consisted of a brief overview of high points of the film and some discussion to alert students to be aware of parallels between the authors.

Cinematic Projection/Response to Questionnaire: (60 minutes)

As film was projected, time was taken to pause at appropriate junctures to allow students to respond to questions or ask for clarification.

Conclusion: (5 minutes)

Take up the handout (BLM 5.1) and expand using what we have learned throughout the unit. Handout questions are very straightforward knowledge-based answers from the movie. Try to expand and create discussion using higher order thinking skills.

Lesson 6

Course: CHY4U

Title: Assessment (Putting it all together)

Overview:

This class offered an excellent opportunity for students to provide ample feedback on their learning process, including what they learned, how they learned, and what they enjoyed the most. The host teacher-mentor suggested the student written response not be evaluated for marks, but acquiesced in their sharing of written response with small groups.

This period allowed me to summarize a few points, strongly linking the material covered with many facts and events in Canadian History, and even global references to World Wars, modern technology, and even the Holocaust. It also permitted me to provide a select list of suggested further reading.

Learning Goals:

The sixth lesson Plan should reveal the increasing assimilation and synthesis of knowledge by students about historical evidence to explain current civilizing aspects on a global scale.

Curriculum Expectations:

To analyse information, employing concepts and theories appropriate to historical inquiry (e.g., chronology, cause and effect short- and long-term consequences).

To apply the concepts of Change and Continuity. Pg 196 explains how viewing events in chronological order and within a specific periodization provides a basis for historical understanding.

To make connections between historical situations studied in the course and similar situations in new or unfamiliar contexts (e.g., by identifying chronological ties and cause and effect relationships, and the use of comparison and contrast).

Materials:

One Blackline Master questionnaire for students' personal response.

Plan of Instruction:

Hand out questionnaire, giving the instructions to write in brief paragraphs and fully developed sentences. Students were encouraged to make multiple references to material we have shared for the week.

Warm up:

Visuals were effective in stimulating a thirst for further knowledge about the events covered in this unit.

Writing: (30 minutes)

Distribution of Assignment: Sheets circulated to students who are instructed to complete assignment in class in 30 minutes.

Group Work: (20 minutes)

In six-member group sections, all six take turns to read their production to the group.

Have each group select the paper they feel best represents what we have been studying. Have each of these three finalists read their paper to the class.

Conclusion: (1 minute)

This time slot, most importantly, gave me the invaluable opportunity to invite students to continue to become historians, and to complement students on their mature behaviour and intellectual prowess throughout the entire unit.

PSD 1.1

1893, English, transl. W. C. Green, from the original 'Egils saga Skallagrímssonar'.

Egil's Saga

Chapter 1 - Of Kveldulf and his sons.

There was a man named Ulf, son of Bjalf, and Hallbera, daughter of Ulf the fearless; she was sister of Hallbjorn Half-giant in Hrafnista, and he the father of Kettle Hæing. Ulf was a man so tall and strong that none could match him, and in his youth he roved the seas as a freebooter. In fellowship with him was one Kari of Berdla, a man of renown for strength and daring; he was a Berserk. Ulf and he had one common purse, and were the dearest friends.

But when they gave up freebooting, Kari went to his estate at Berdla, being a man of great wealth. Three children had Kari, one son named Eyvind Lambi, another Aulvir Hnuf, and a daughter Salbjorg, who was a most beautiful woman of a noble spirit. Her did Ulf take to wife, and then he too went to his estates. Wealthy he was both in lands and chattels; he took baron's rank as his forefathers had done, and became a great man. It was told of Ulf that he was a great householder; it was his wont to rise up early, and then go round among his labourers or where his smiths were, and to overlook his stalk and fields, and at times he would talk with such as needed his counsel, and good counsel he could give in all things, for he was very wise. But everyday as evening drew on he became sullen, so that few could come to speak with him. He was an evening sleeper, and it was commonly said that he was very shape strong. He was called Kveldulf.

Kveldulf and his wife had two sons, the elder was named Thorolf, the younger Grim; these, when they grew up, were both tall men and strong, as was their father. But Thorolf was most comely as well as doughty, favoring his mother's kin; very cheery was he, liberal, impetuous in everything, a good trader, winning the hearts of all men. Grim was swarthy, ill-favoured, like his father both in face and mind; he became a good man of business; skilful was he in wood and iron, an excellent smith. In the winter he often went to the herring fishing, and with him many house-carles.

But when Thorolf was twenty years old, then he made him ready to go a harrying. Kveldulf gave him a long-ship, and Kari of Berdla's sons, Eyvind and Aulvir, resolved to go on that voyage, taking a large force and another long-ship; and they roved the seas in the summer, and got them wealth, and had a large booty to divide. For several summers they were out roving, but stayed at home in winter with their fathers. Thorolf brought home many costly things, and took them to his father and mother; thus they were well-to-do both for possessions and honour. Kveldulf was now well stricken in years, and his sons were grown men.

Chapter 2 - Of Aulvir Hnuf.

Audbjorn was then king over the Firthfolk; there was an earl of his named Hroald, whose son was Thorir. Atli the Slim was then an earl, he dwelt at Gaula; he had sons - Hallstein, Holmstein, and Herstein; and a daughter, Solveig the Fair. It happened one autumn that much people were gathered at Gaula for a sacrificial feast, then saw Aulvir Hnuf Solveig and courted her; he afterwards asked her to wife. But the earl thought him an unequal match and would not give her. Whereupon Aulvir composed many love-songs, and thought so much of Solveig that he left freebooting, but Thorolf and Eyvind Lambi kept it on.

Chapter 3 - The beginning of the rule of Harold Fairhair.

Harold, son of Halfdan Swarthy, was heir after his father. He had bound himself by this vow, not to let his hair be cut or combed till he were sole king over Norway, wherefore he was called Harold Shockhead. So first he warred with the kings nearest to him and conquered them, as is told at length elsewhere. Then he got possession of Upland; thence he went northwards to Thronheim, and had many battles there before he became absolute over all the Thronds. After that he purposed to go north to Naumdale to attack the brothers Herlaug and Hrollaug, kings of Naumdale. But when these brothers heard of his coming, Herlaug with twelve men entered the sepulchral mound which they had caused to be made (they were three winters at the making), and the mound then was closed after them. But king Hrollaug sank from royalty to earldom, giving up his kingdom and becoming a vassal of Harold. So Harold gained the Naumdalesmen and Halogaland, and he set rulers over his realm there. Then went he southwards with a fleet to Mæra and Raumsdale. But Solvi Bandy-legs, Hunthiof's son, escaped thence, and going to king Arnvid, in South Mæra, he asked help, with these words:

'Though this danger now touches us, before long the same will come to you; for Harold, as I ween, will hasten hither when he has enthralled and oppressed after his will all in North Mæra and Raumsdale. Then will the same need be upon you as was upon us, to guard your wealth and liberty, and to try everyone from whom you may hope for aid. And I now offer myself with my forces against this tyranny and wrong. But, if you make the other choice, you must do as the Naumdalesmen have done, and go of your own will into slavery, and become Harold's thralls. My father though it victory to die a king with honour rather than become in his old age another king's subject. Thou, as I judge, wilt think the same, and so will others who have any high spirit and claim to be men of valour.'

Primary Source found in:

http://www.sagadb.org/egils_saga.en (internet site)

PSD 2.1

Pope Urban's Speech

Urban II's Speech at Clermont: The Beginning of the 1st Crusade

[This is just an excerpt of the speech]

"All who die by the way, whether by land or by sea, or in battle against the pagans, shall have immediate remission of sins. This I grant them through the power of God with which I am invested. O what a disgrace if such a despised and base race, which worships demons, should conquer a people which has the faith of omnipotent God and is made glorious with the name of Christ! With what reproaches will the Lord overwhelm us if you do not aid those who, with us, profess the Christian religion! Let those who have been accustomed unjustly to wage private warfare against the faithful now go against the infidels and end with victory this war which should have been begun long ago. Let those who for a long time, have been robbers, now become knights. Let those who have been fighting against their brothers and relatives now fight in a proper way against the barbarians. Let those who have been serving as mercenaries for small pay now obtain the eternal reward. Let those who have been wearing themselves out in both body and soul now work for a double honor. Behold! on this side will be the sorrowful and poor, on that, the rich; on this side, the enemies of the Lord, on that, his friends. Let those who go not put off the journey, but rent their lands and collect money for their expenses; and as soon as winter is over and spring comes, let hem eagerly set out on the way with God as their guide."

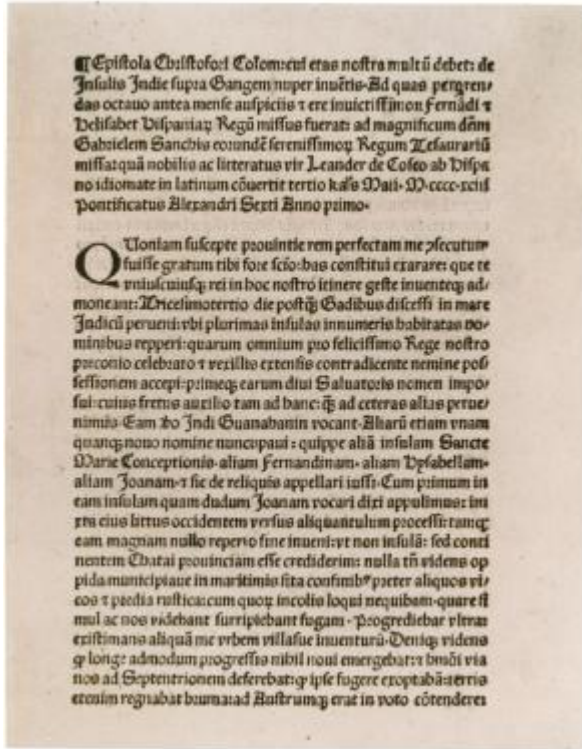
Primary Source found in:

Bongars, *Gesta Dei per Francos*, 1, pp. 382 f., trans in Oliver J. Thatcher, and Edgar Holmes McNeal, eds., *A Source Book for Medieval History*, (New York: Scribners, 1905), 513-17.
<http://legacy.fordham.edu/Halsall/source/urban2-5vers.asp>

PSD 3.1

Columbus reports on his first voyage, 1493

A primary source by Christopher Columbus



Christopher Columbus's letter to Ferdinand and Isabella, 1493. (Gilder Lehrman Collection)

On August 3, 1492, Columbus set sail from Spain to find an all-water route to Asia. On October 12, more than two months later, Columbus landed on an island in the Bahamas that he called San Salvador; the natives called it Guanahani.

For nearly five months, Columbus explored the Caribbean, particularly the islands of Juana (Cuba) and Hispaniola (Santo Domingo), before returning to Spain. He left thirty-nine men to build a settlement called La Navidad in present-day Haiti. He also kidnapped several Native Americans (between ten and twenty-five) to take back to Spain—only eight survived. Columbus brought back small amounts of gold as well as native birds and plants to show the richness of

the continent he believed to be India.

When Columbus arrived back in Spain on March 15, 1493, he immediately wrote a letter announcing his discoveries to King Ferdinand and Queen Isabella, who had helped finance his trip. The letter was written in Spanish and sent to Rome, where it was printed in Latin by Stephan Planck. Planck mistakenly left Queen Isabella's name out of the pamphlet's introduction but quickly realized his error and reprinted the pamphlet a few days later. The copy shown here is the second, corrected edition of the pamphlet.

The Latin printing of this letter announced the existence of the American continent throughout Europe. "I discovered many islands inhabited by numerous people. I took possession of all of them for our most fortunate King by making public proclamation and unfurling his standard, no one making any resistance," Columbus wrote.

In addition to announcing his momentous discovery, Columbus's letter also provides observations of the native people's culture and lack of weapons, noting that "they are destitute of arms, which are entirely unknown to them, and for which they are not adapted; not on account of any bodily deformity, for they are well made, but because they are timid and full of terror." Writing that the natives are "fearful and timid . . . guileless and honest," Columbus declares that

the land could easily be conquered by Spain, and the natives “might become Christians and inclined to love our King and Queen and Princes and all the people of Spain.”

An English translation of this document is available.

Excerpt

I have determined to write you this letter to inform you of everything that has been done and discovered in this voyage of mine.

On the thirty-third day after leaving Cadiz I came into the Indian Sea, where I discovered many islands inhabited by numerous people. I took possession of all of them for our most fortunate King by making public proclamation and unfurling his standard, no one making any resistance. The island called Juana, as well as the others in its neighborhood, is exceedingly fertile. It has numerous harbors on all sides, very safe and wide, above comparison with any I have ever seen. Through it flow many very broad and health-giving rivers; and there are in it numerous very lofty mountains. All these island are very beautiful, and of quite different shapes; easy to be traversed, and full of the greatest variety of trees reaching to the stars. . . .

In the island, which I have said before was called *Hispana*, there are very lofty and beautiful mountains, great farms, groves and fields, most fertile both for cultivation and for pasturage, and well adapted for constructing buildings. The convenience of the harbors in this island, and the excellence of the rivers, in volume and salubrity, surpass human belief, unless one should see them. In it the trees, pasture-lands and fruits differ much from those of Juana. Besides, this *Hispana* abounds in various kinds of species, gold and metals. The inhabitants . . . are all, as I said before, unprovided with any sort of iron, and they are destitute of arms, which are entirely unknown to them, and for which they are not adapted; not on account of any bodily deformity, for they are well made, but because they are timid and full of terror. . . . But when they see that they are safe, and all fear is banished, they are very guileless and honest, and very liberal of all they have. No one refuses the asker anything that he possesses; on the contrary they themselves invite us to ask for it. They manifest the greatest affection towards all of us, exchanging valuable things for trifles, content with the very least thing or nothing at all. . . . I gave them many beautiful and pleasing things, which I had brought with me, for no return whatever, in order to win their affection, and that they might become Christians and inclined to love our King and Queen and Princes and all the people of Spain; and that they might be eager to search for and gather and give to us what they abound in and we greatly need.

Primary Source found in:

Christopher Columbus, Gilderlehrman Collection #GLC01427, 1493.

<http://www.gilderlehrman.org/history-by-era/exploration/resources/columbus-reports-his-first-voyage-1493>.

PSD 4.1

Fifteenth-Century Slave Trade: The Portuguese in West Africa

(1455-1456) Alvise da Cadamosto

You should also know that behind this Cauo Bianco on the land, is a place called Hoden,¹ which is about six days inland by camel. This place is not walled, but is frequented by Arabs, and is a market where the caravans arrive from Tanbutu [Timbuktu], and from other places in the land of the Blacks, on their way to our nearer Barbary. The food of the peoples of this place is dates, and barley, of which there is sufficient, for they grow in some of these places, but not abundantly. They drink the milk of camels and other animals, for they have no wine. They also have cows and goats, but not many, for the land is dry. Their oxen and cows, compared with ours, are small.

They are Muhammadans, and very hostile to Christians. They never remain settled, but are always wandering over these deserts. These are the men who go to the land of the Blacks, and also to our nearer Barbary. They are very numerous, and have many camels on which they carry brass and silver from Barbary and other things to Tanbutu and to the land of the Blacks. Thence they carry away gold and pepper, which they bring hither. They are brown complexioned, and wear white cloaks edged with a red stripe: their women also dress thus, without shifts. On their heads the men wear turbans in the Moorish fashion, and they always go barefooted. In these sandy districts there are many lions, leopards, and ostriches, the eggs of which I have often eaten and found good.

You should know that the said Lord Infante of Portugal [the crown prince, Henry the Navigator] has leased this island of Argin to Christians [for ten years], so that no one can enter the bay to trade with the Arabs save those who hold the license. These have dwellings on the island and factories where they buy and sell with the said Arabs who come to the coast to trade for merchandise of various kinds, such as woollen cloths, cotton, silver, and "alchezeli," that is, cloaks, carpets, and similar articles and above all, corn, for they are always short of food. They give in exchange slaves whom the Arabs bring from the land of the Blacks, and gold tiber. The Lord Infante therefore caused a castle to be built on the island to protect this trade for ever. For this reason, Portuguese caravels are coming and going all the year to this island.

These Arabs also have many Berber horses, which they trade, and take to the Land of the Blacks, exchanging them with the rulers for slaves. Ten or fifteen slaves are given for one of these horses, according to their quality. The Arabs likewise take articles of Moorish silk, made in Granata and in Tunis of Barbary, silver, and other goods, obtaining in exchange any number of these slaves, and some gold. These slaves are brought to the market and town of Hoden; there they are divided: some go to the mountains of Barcha, and thence to Sicily, [others to the said town of Tunis and to all the coasts of Barbary], and others again are taken to this place, Argin, and sold to the Portuguese leaseholders. As a result every year the Portuguese carry away from Argin a thousand slaves. Note that before this traffic was organized, the Portuguese caravels, sometimes four, sometimes more, were wont to come armed to the Golfo d'Argin, and descending on the land by night, would assail the fisher villages, and so ravage the land. Thus they took of these Arabs both men and women, and carried them to Portugal for sale: behaving

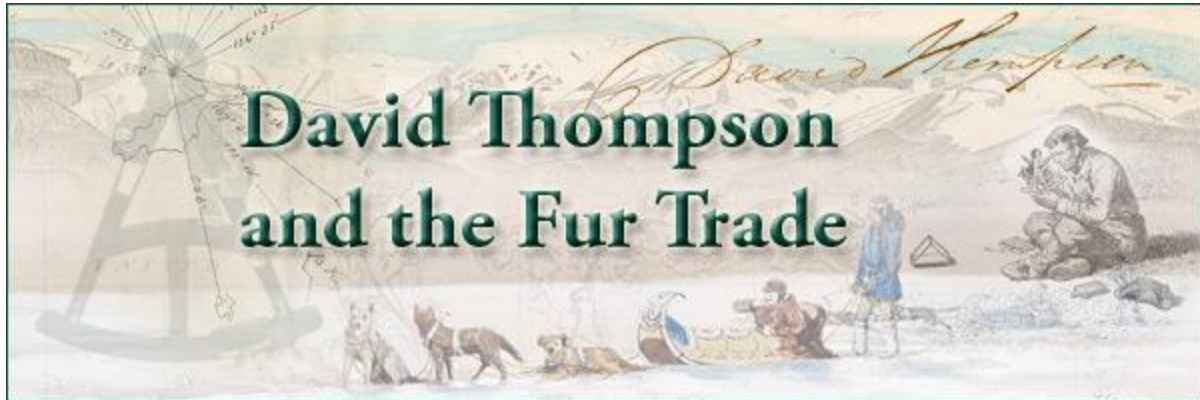
in a like manner along all the rest of the coast, which stretches from Cauo Bianco to the Rio di Senega and even beyond.

¹Wadan, an important desert market about 350 miles east of Arguim. Later, in 1487, when the Portuguese were endeavouring to penetrate the interior they attempted to establish a trading factory at Wadan which acted as a feeder to Arguim, tapping the north-bound caravan traffic and diverting some of it to the west coast.

Primary Source found in:

Alvise da Cadamosto, "Description of Capo Bianco and the Islands Nearest to It." Quoted in J. H. Parry, *European Reconnaissance: Selected Documents* (New York: Walker, 1968), 59-61.
http://www.artsrn.ualberta.ca/amcdouga/Hist446/readings/outsidere_cadamosto.htm.

PSD 5.1



European exploration of the interior of North America was stimulated by demand for beaver pelts. When 14 year old David Thompson arrived at Churchill Factory in 1784, the trading network of the Hudson's Bay Company extended to the Saskatchewan River and Lake Athabaska district. Starting as an apprentice clerk, Thompson served 13 years with the Hudson's Bay Company. Besides the fur trade his duties included hunting game, establishing new posts and compiling accounts and journals for the Company.

In December 1788, Thompson broke his leg. While recuperating, he studied under Philip Turnor, the Company's official surveyor, to improve his skill in taking and recording astronomical observations and calculating latitude and longitude.

"David Thompson has been my assistant this year. . . [and] has been very diligent in learning."

Turnor to Cohen
Hudsons Bay Company Archives
B239/50

Thompson used instruments like this sextant to help him calculate latitude. By determining the angular measurement between the horizon and a common celestial object - usually the Sun or Polaris (the north star) he was able to determine his location on the globe.



Sextant. English, [ca. 1790-1810]
Royal Ontario Museum,
Canadiana Department, 958.11.2

Although Thompson faithfully performed his duties in managing the annual cycle of the fur trade, his real interests lay in exploration, astronomy and surveying. In 1797 he left the Hudson's Bay Company and joined the rival North West Company.

"This day left the Service of the Hudsons [sic] Bay Co and entered that of the Company of Merchants from Canada - May God Almighty prosper me."

Entry dated 23 May 1797, Journal #5
David Thompson's notebooks and
journals
Reference Code: F 443-1
Archives of Ontario

Click to see a larger image (283K)

Fort William, an establishment of the North West Company, on Lake Superior, [ca. 1811]

Watercolour by Robert Irvine

Acc. No. R9266-290

Library and Archives Canada

Thompson spent the winter of 1808-1809 at Kootenae House in the Rocky Mountains working up drawings from his sketches and journals.

"We had a grand view of the Rocky Mountains" #8221;

Entry dated 6 October 1800,
Journal #13
David Thompson's notebooks and
journals
Reference Code: F 443-1
Archives of Ontario

Primary Source found in:

Archives of Ontario, Ontario Ministry of Government Goods and Services, *David Thompson and the Fur Trade* (Queen's Printer for Ontario, 2014).

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PSD 6.1

Original Document

The French Commander's Reply to Governor Dinwiddie, December, 1753.

[December 15, 1753]

Sir,

As I have the honor of commanding here in chief, Mr. Washington delivered me the letter which you wrote to the Commander of the French troops. I should have been glad if you had given him orders, or he had been inclined, to proceed to Canada to see our general, to whom it belongs, rather than to me, to set forth evidence of the incontestable rights of the King, my master, to the lands situated along the Ohio, and to contest the pretensions of the King of Great Britain thereto.

I shall transmit your letter to the Marquis du Quesne. His reply will be a law to me, and, if he order me to communicate it to you, Sir, you may be assured that I shall dispatch it forthwith.

As to the summons you send me to retire, I do not think myself obliged to obey it. Whatever may be your instructions, mine bring me here by my general's order; and I entreat you, Sir, to be assured that I shall attempt to follow them with all the exactness and determination which can be expected from a good officer.

I do not know that anything has happened during the course of this campaign which can be construed as an act of hostility, or as contrary to the treaties between the two Crowns; the continuation whereof, interests and pleases us as much as it does the English. If you had been pleased to go into detail regarding the facts which caused your complaints, I should have had the honor of answering you in the most satisfactory manner possible for me.

I have made it a duty to treat Mr. Washington with all the respect owing to your dignity and his personal merit, and I flatter myself, Sir, that he will do me the justice to be my witness for it with you, as well as the evidences of deep respect with which

I have the honor to be,

Sir,

Your very humble and very obedient servant,

LEGARDEUR DE SAINT-PIERRE

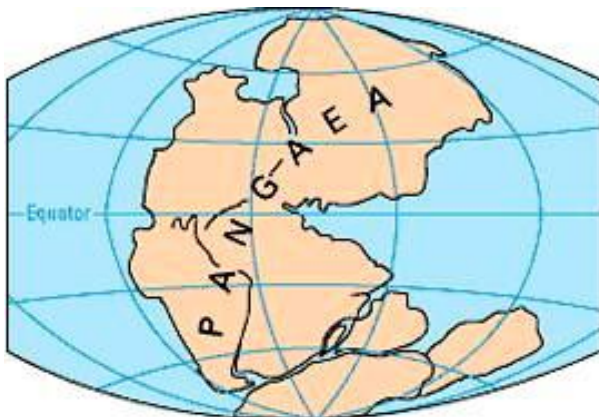
From the fort on the Riviere aux Boeufs, December 15, 1753.

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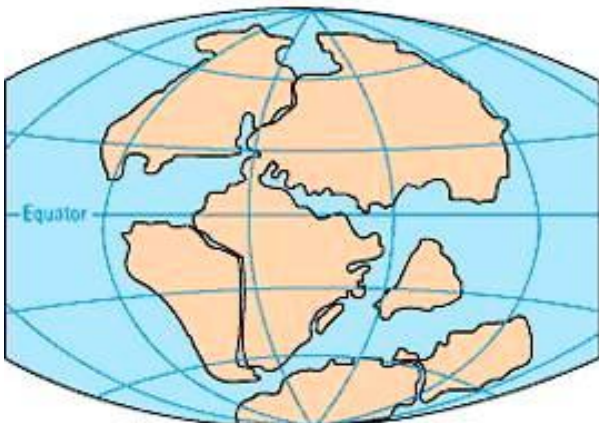
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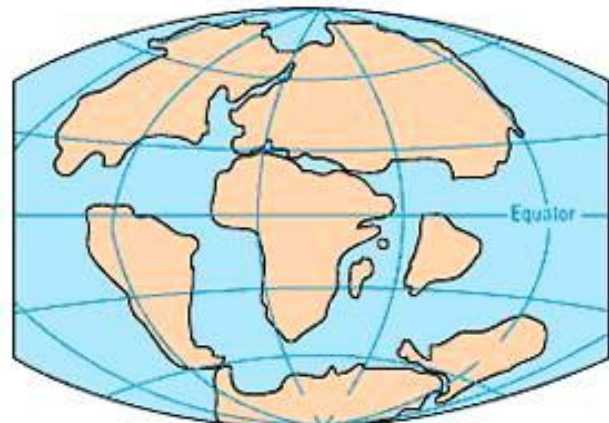
PERMIAN
225 million years ago



TRIASSIC
200 million years ago



JURASSIC
135 million years ago

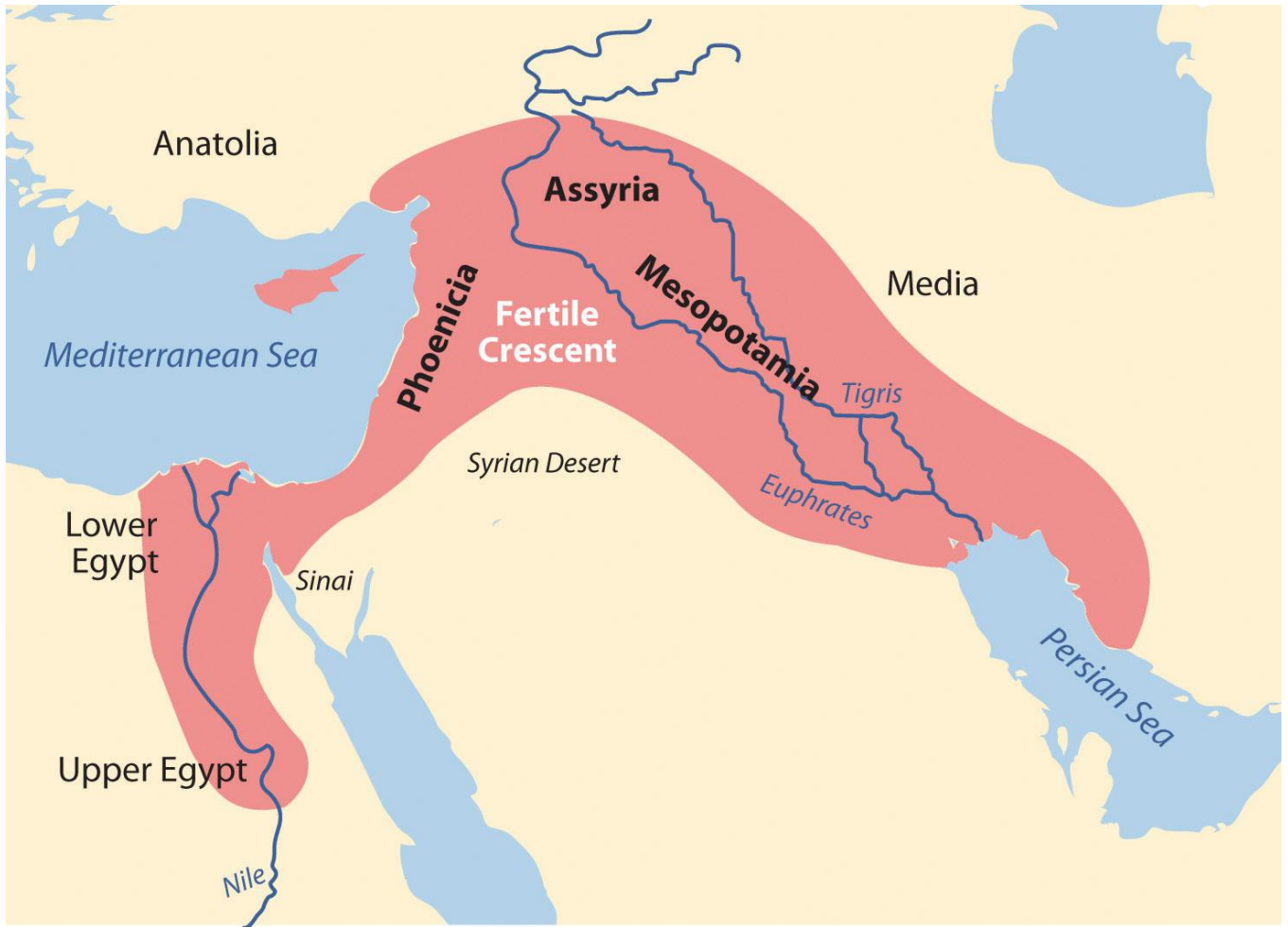


CRETACEOUS
65 million years ago



PRESENT DAY

BLM 1.2



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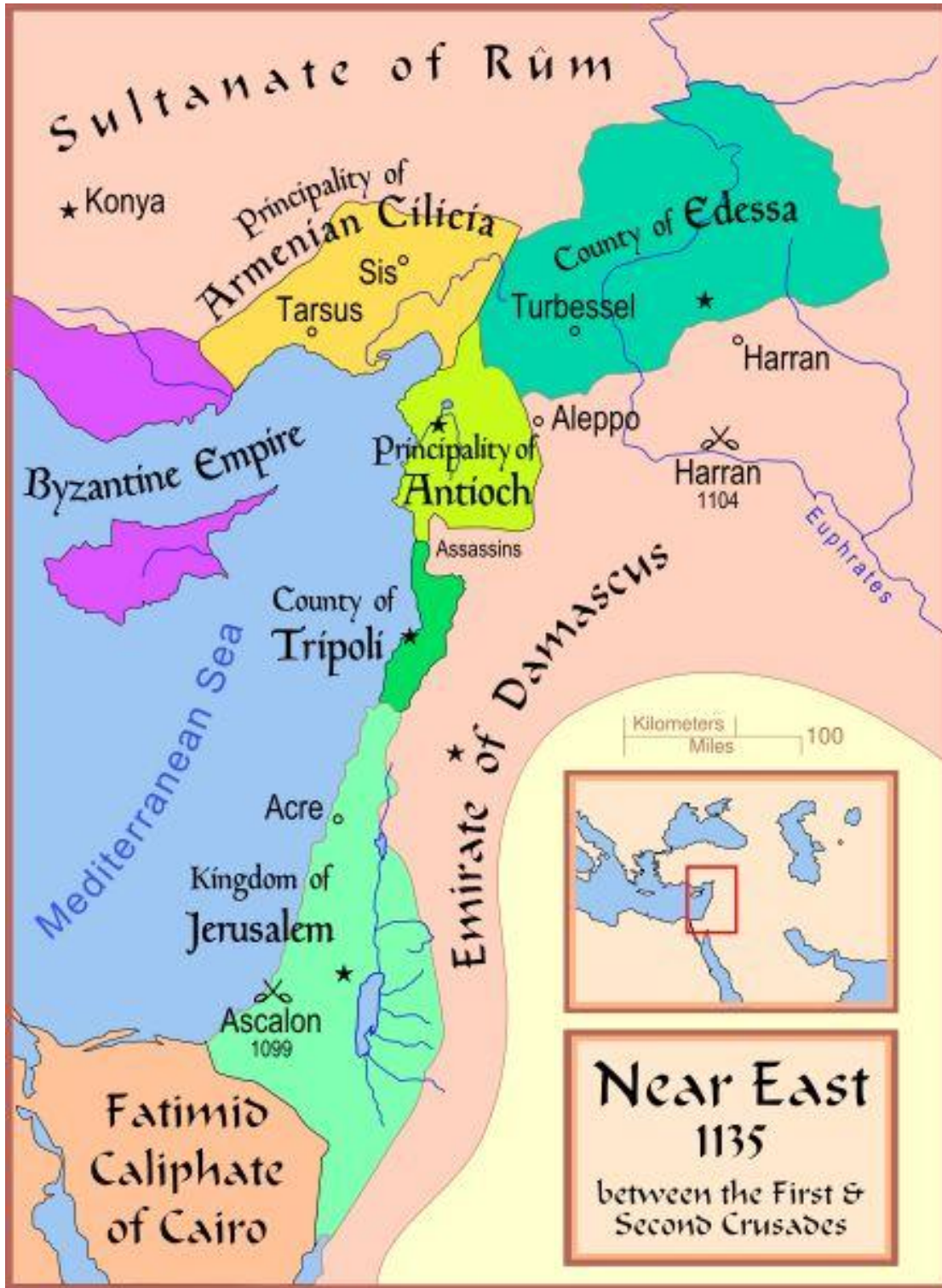
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BLM 1.4



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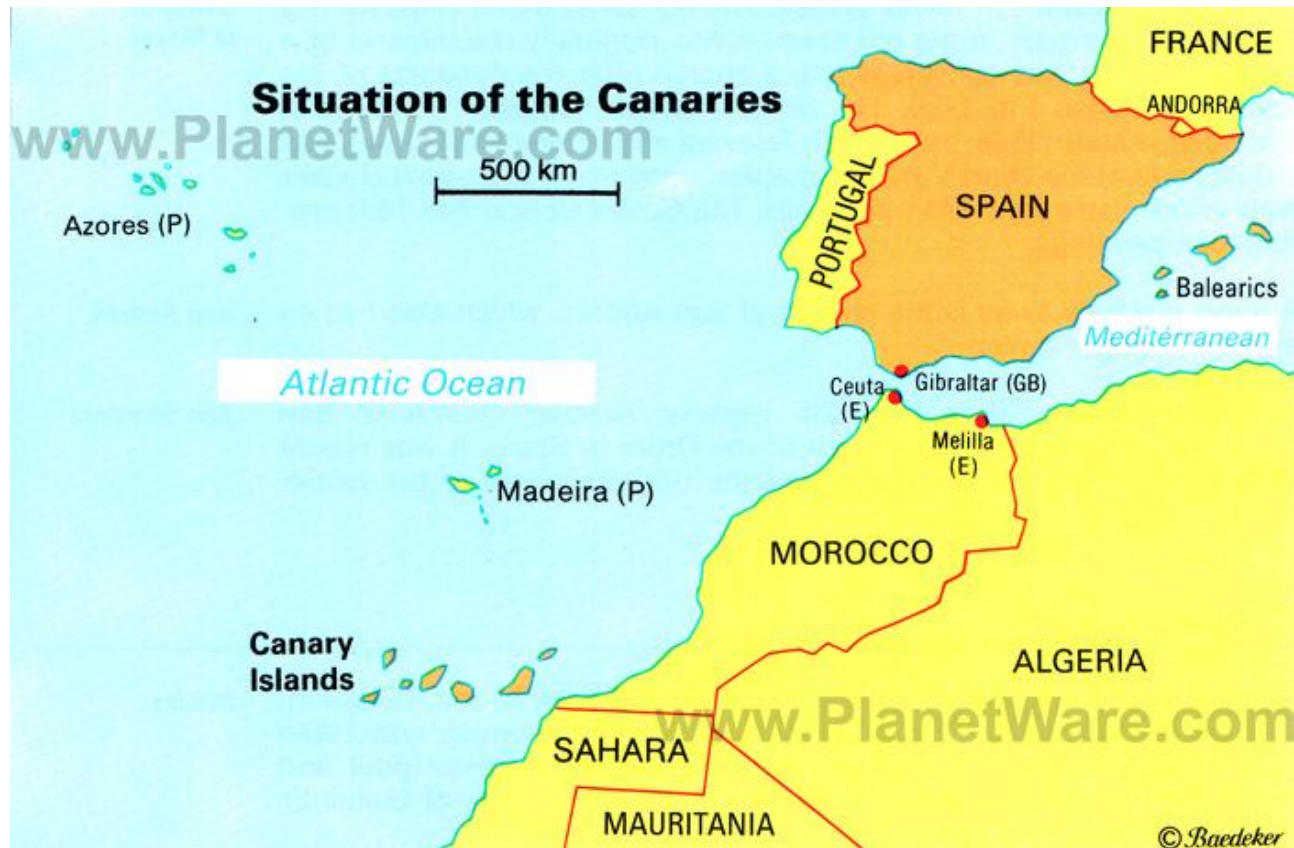
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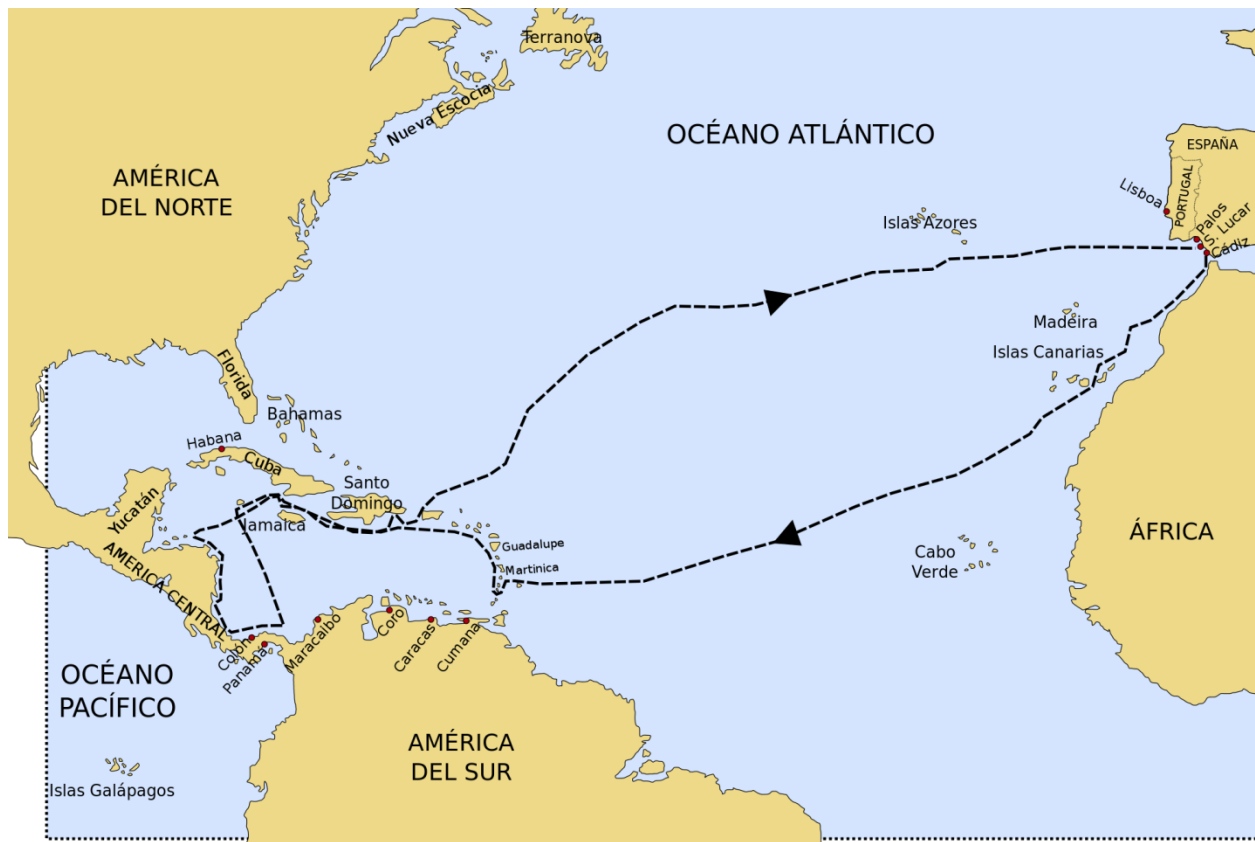
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BLM 3.1



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BLM 3.2



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BLM 3.3



"Moragsoorm" by archiwum własne wikingów, Jarmeryk -

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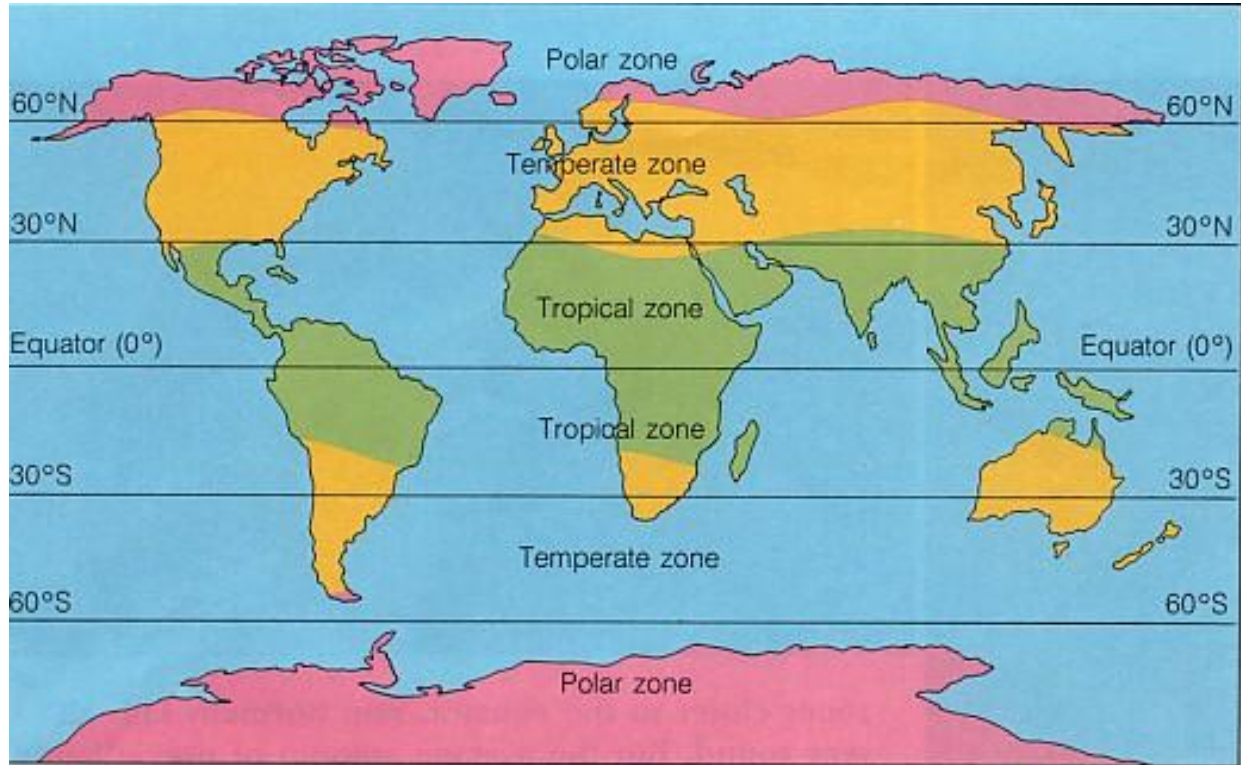
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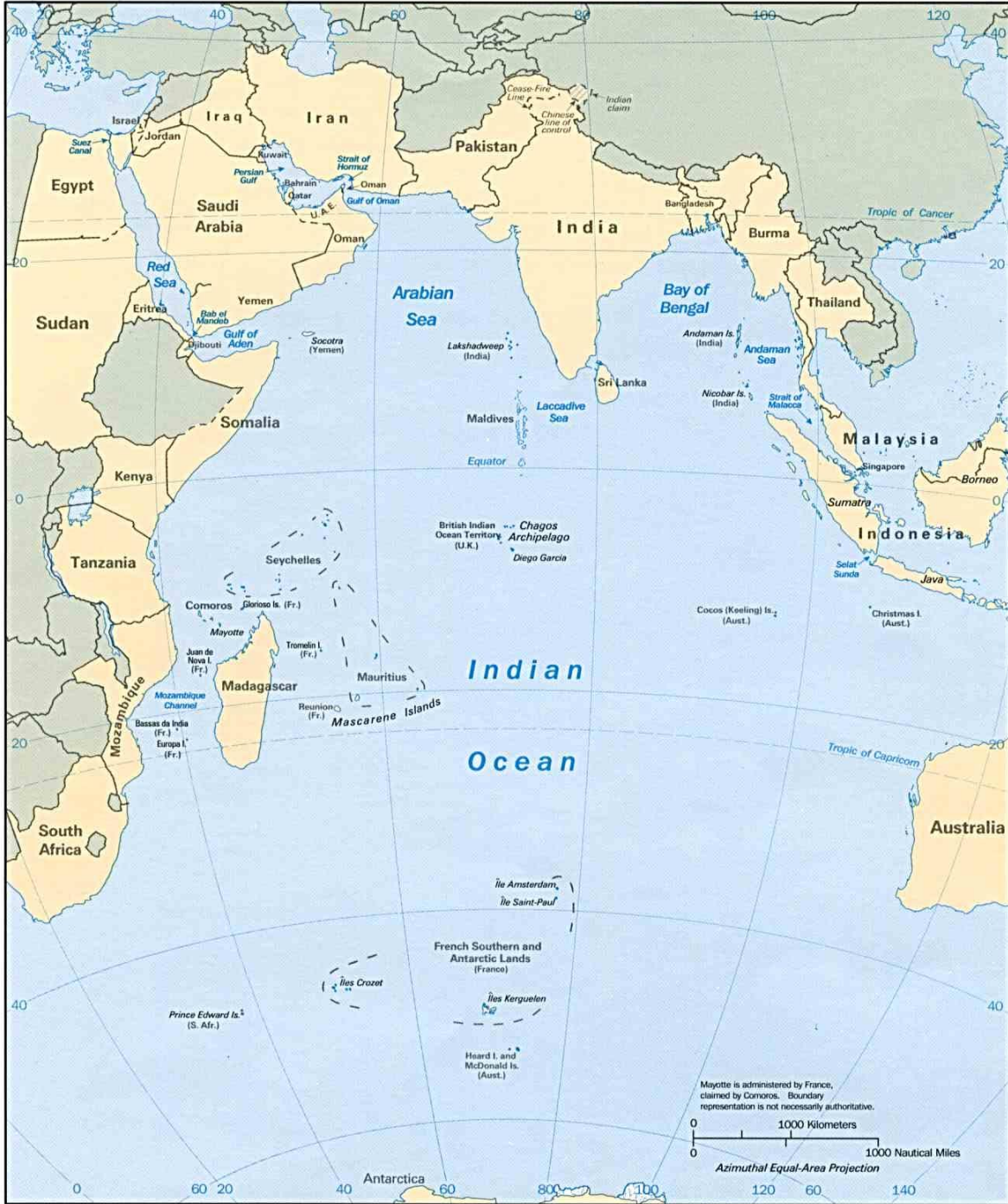
BLM 3.5



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BLM 3.6

Indian Ocean Area



802126 (R00367) 5-93

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BLM 3.7



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BLM 4.1

Alfred W. Crosby, Ecological Imperialism

Weeds:

First, it is necessary to define “Neo-Europe” more narrowly than we have thus far. Not all parts of the United States, Argentina, Australia, and so forth, attracted great numbers of Europeans. There are, for instance, few whites in Australia’s Great Sandy Desert, and if all of Australia were arid, then that continent would be no nearer to being a Neo-Europe than is Greenland. Where the hottest, coldest, driest, wettest, and, in general, the most inhospitable parts of the Neo-Europes have white populations today, it is because great numbers of white immigrants were attracted to the more hospitable regions, and then spread out from there. These regions are the arenas in which native and alien species had their most significant competitions in the post-Columbian and post-Cookian era, and in which the results made possible the Europeanization of the whole lands. It is on these arenas that we shall be focusing our attention. The eastern third of the United States and Canada, where half the population still lives, though it has been over three and a half centuries since the founding of Jamestown and Quebec, is the Neo-European seedbed of North America. The counterpart in Australia is its southeastern corner, bounded by the seas and a line drawn from Brisbane to Adelaide, plus Tasmania. All of New Zealand, minus its high cold country and the west coast of the South Island, falls into this alluring category. The Neo-European core of southern South America is the humid grassland at whose center lays the city of Buenos Aires. It is an enormous territory, most of it flat as a board, that lies within a half circle scrawled from Bahia Blanca in the south to Cordoba in the west to Porto Alegre on the Brazilian coast. This vast tract of upwards of a million square kilometers includes a fifth of Argentina and all of Uruguay and Brazil’s Rio Grande do Sul. There live two-thirds of Argentina’s people and all those of Uruguay and Rio Grande do Sul, the largest concentration of population in the world south of the Tropic of Capricorn.

Weeds: in modern botanical usage, the word refers to any plant that spreads rapidly and outcompetes others on disturbed soil.

Weeds are not always unlikeable. Rye and oats were once weeds; now they are crop plants. Can a crop plant shift the other way and become a weed? Yes. Amaranth and crabgrass were prehistoric crops in America and Europe, respectively, both treasured for their nourishing seeds, and now both have been demoted to weeds.

Weeds are not good or bad; they are simply the plants that tempt the botanist to use such anthropomorphic terms as aggressive and opportunistic.

Mediterranean weeds were no doubt the first successful crossers among colonizing plants, making the short jump to the deforested slopes of the Azores, Madeiras, and Canaries, and then the long voyage to the West Indies and tropical America.

European crops and other desirable plants flourished in the Indies even when disgracefully neglected by farmers gone crazy for gold and conquest; so we can be sure that the imported weeds, which thrive on neglect, did very well indeed. Even trees sank to the level of weedy behaviour. When, at the end of the 16th century, Jose de Acosta asked who had planted the forests of orange trees through which he walked and rode, the answer was “that oranges being fallen to the ground, and rotten, their seeds did spring, and of those which the water carried away into divers parts, these woods grow so thicke.” Two centuries and a half later, Charles Darwin found islands near the mouth of the Parana thick with orange and peach trees, springing up from seeds carried by the river.

It is probable that central Mexico’s weak flora by 1600 was largely what it is today: mostly Eurasian with a predominance of Mediterranean plants.

As John Charles Fremont, an explorer from the United States, was coming down along the *Rio do los Americanos* into the Sacramento Valley in March 1844, he found red-stemmed filaree, an Old World immigrant like himself and his mounts. It was “just now beginning to bloom, and covering the ground like a sward of grass.” The horses consumed it, “with avidity,” and even the squaws he met ate it “with apparent relish,” indicated by sign language that what was good for the animals was good for them, too.

A number of weeds came into California during the late Spanish era, probably more during the Mexican years after 1824, and more yet after annexation by the United States, as Anglo-Americans brought plants with them across the plains from the eastern seaboard. The gold rush of 1849 produced an immense demand for beef and therefore severe overgrazing, which was followed by extensive floods in 1862 and then an intensive two-year drought. When the rains came again, the introduced plants sprouted first and fastest, and California’s grasslands became what they had been becoming for a century, that is, Eurasian. Without the opportunistic invaders, the loss of topsoil would have impoverished thousands of hectares of the most valuable agricultural land in the world today. By 1860 there were at least ninety-one alien weed species naturalized in the state. A twentieth-century reconnaissance of the San Joaquin valley revealed that introduced plants “constituted 63% of the herbaceous vegetation in the grassland types, 66% in the woodland, and 54% in chaparral.”

We have to guess about the early history of Old World colonizing plants in Mexico, extrapolating backward from more recent examples of their spread, but not in Peru, thanks to the Jesuit Bernabe Cobo and the half Amerindian, half Spanish nobleman Garcilaso de la Vega. They did not write specifically about plants that were unequivocally weedy in behaviour – such plants did not deserve the attention of distinguished men – but they did write about respectable plants that went wild and defied attempts to keep them out of cultivated fields, citing turnips, mustard, mint, and chamomile as among the worst offenders. Several of these “have overgrown the original names of the valleys and imposed their own as in the case of Mint Valley on the

seacoast, which was formerly called Rucma, and others.” In Lima, endive and spinach grew taller than a man, and “a horse could not force his way through them.”

The most expansionistic European weed in 16th century Peru was *trebol*, a clover or clovers that took over more of the cool, damp country than any other colonizing species, providing good forage but smothering crops as well. The former subjects of the Inca, who had abruptly found themselves with a new elite and a new God to support, now discovered themselves in competition with *trebol* for crop land. What was *trebol*? Most of it, in all likelihood, was white clover, which performed the same role of pioneer and *conquistador* in North America.

Native American grasses east of the Mississippi, never having had to survive the enormous herds of quadrupeds that grazed the Great Plains, had few of the attributes that enable plants to live in the same fields with cattle, sheep, and goats. The indigenous grasses disappeared from all but the niches and crannies of British and French North America after the arrival and spread of those animals.

In January of 1832, Lewis D. de Schweinitz, after much research, announced to the Lyceum of Natural History of New York that the most aggressive plants in the northern states of the United States were the foreign weeds, and he provided a list of 137 of them. The situation in the South was in all probability similar.

The usurpation of the native biota and the pampa must have been under way by the end of the 16th century, as domesticated animals from Europe arrived, thrived, and propagated into enormous herds. Their eating habits, trampling hooves, and droppings, and the seeds of the weedish plants they carried with them, as alien to America as they were themselves, altered forever the soil and flora of the pampa. That alteration must have been swift, but there is little in contemporary documents on the subject until the 18th century. A visitor, Felix de Azara, recorded in the 1780s that the vast numbers of livestock and the practice of burning off the dead grasses annually were eliminating delicate plants and the taller grasses, and the resulting vacancies were not going begging. Wherever the European or half-breed pioneer threw up his little hut, mallows and thistles and such spring up, even if there were no other such plants for thirty leagues. And it was enough that the frontiersman frequent a road, even though alone with his horse, for these plants to rise up along its edges. The pioneer of the pampa was a sort of botanical Midas, changing the flora with his touch.

The British who came to New South Wales in 1788 to found a colony intentionally brought many kinds of plants with them – over 200 by March 1803- and, of course, others unintentionally. Some of those brought on purpose immediately took up the ways of the weed – purslane, for one – and their success indicates the vulnerability of the Australian flora to Old World invasion. White clover barely held its own in the rather dry site of the original settlement at Sydney, but advanced rapidly in the moist climate of Melbourne, “often destroying other

vegetation.” Sow thistle seemed to thrive everywhere in and around the latter city, even growing on roofs. Other weeds also spread rapidly in Victoria, including knotgrass and red sorrel, pushing less aggressive grasses right out of some pastures. Tasmania, whose climate is very like that of northwestern Europe, was also hospitable to the new weeds, and knotgrass and snakeweed kept pace with the colonizing humans.

The weeds could move into the interior with amazing speed, sometimes bounding ahead of the settled frontier.

In the middle decades of the last century, according to a careful census of naturalized plants around Melbourne and a few scattered reports from elsewhere, 139 aliens were growing wild in Australia, and almost all of them of European origin.

Sixty percent of the more important farmland weeds in Canada are European. Of the 500 equivalents in the United States, 258 are from the Old World, 177 specifically from Europe. The total number of naturalized plant species in Australia is about 800, and despite contributions from the Americas, Asia, and Africa, the majority came from Europe.

But the exchange has been as one-sided as that of human beings. Hundreds of Old World weeds packed up, weighed anchor, set sail for the colonies, and prospered there, but the American and other Neo-European plants that crossed the Pangaeian seams in the other direction usually pined away and died unless given special quarters and pampering at such homes for exotica as Kew Gardens.

Some naturalists muttered obscurely about the greater “plasticity” of Old World plants. Meaning what? Variability? Others talked about European flora having the advantage over American flora because of being older, and still others because of its being younger. The whole matter was clouded in mystery. “It appears, wrote Professor E. W. Claypole of Antioch College in Ohio, “as if some invisible barrier existed preventing passage Eastward, though allowing it Westward.”

The obvious explanations do not hold water. It is true that crop seeds and therefore (and unintentionally) weed seeds were exported from Europe to the colonies in quantity, but the ships that carried them returned to Europe with bales and barrels of tobacco, indigo, rice, cotton, wool, timber, hides, and increasingly, enormous quantities of wheat and other grains, and all of this cargo, inside and out, was a vehicle for seeds from the Neo-Europes. The bales of raw hides that Buenos Aires shipped to Cadiz by the millions must have carried innumerable American seeds with them, but no American equivalent of the wild artichoke ever swept over the backcountry of Granada. One tuft of fluff caught on a splinter of a log shipped from Portsmouth in New England to Portsmouth, Great Britain, could have set off an epidemic of milkweed in the south of England, but it never did. And sailors with Sydney mud and chaff still in the cracks of their best boots clumped down the gangway onto Liverpool quays, but only European, never Australian, weeds sprouted between the pilings. It seemed contrary to nature that Australian plants could not

even get a toehold in Britain, whereas British plants were spreading wildly in Australia. Scientists who were moving toward a theory that species adapt to their environments, taking hundreds of generations to do so, found the contrast inexplicable. Joseph Dalton Hooker sputtered at “this total want of reciprocity in migration.”

It is probably necessary at this point to explain why the entire land surface of the globe is not covered with plantain and the like. Colonizing plants - weeds – can survive nearly anything but success. As they take over disturbed ground, they stabilize the soil, block the baking rays of the sun, and, for all their competitiveness, make it a better place for other plants than it was before. Weeds are the Red Cross of the plant world; they deal with ecological emergencies. When the emergencies are over, they give way to plants that may grow more slowly but grow taller and sturdier. In fact, weeds find it difficult to elbow into undisturbed environments, and they will usually die out if disturbance ceases. A botanist interested in weeds calculated the proportion of introduced plants – weeds – in 3 fields, one that had been undisturbed for 2 years, another for 30 years, and another for 200 years. The percentages of weeds, respectively, were 51%, 13% and 6%. Weeds thrive on radical change, not stability. That, in the abstract, is the reason for the triumph of European weeds in the Neo-Europes, concerning which we shall have more to say in Chapter 11 in a general discussion of the success of Old World species overseas.

What has all this about weeds to do with European humans in the Neo-Europes, beyond providing latter-day investigators with a model for the success of other exotic organisms – humans, for instance? The simple answer is that the weeds were crucially important to the prosperity of the advancing Europeans and Neo-Europeans. The weeds, like skin transplants placed over broad areas of abraded and burned flesh, aided in healing the raw wounds that the invaders tore in the earth. The exotic plants saved newly bared topsoil from water and wind erosion and from baking in the sun. And the weeds often became essential feed for exotic livestock, as these in turn were for their masters. The colonizing Europeans who cursed their colonizing plants were wretched ingrates.

BLM 4.2

Alfred W. Crosby, Ecological Imperialism

Animals:

They were Europeans, not Americans or Australasians, and would never have adapted voluntarily to the new lands in their pristine condition. The migrant Europeans could reach and even conquer, but not make colonies of settlement of these pieces of alien earth until they became a good deal more like Europe than they were when the *merinheiros* first saw them. Fortunately for the Europeans, their domesticated and lithely adaptable animals were very effective at initiating that change.

The Europeans who founded the first transoceanic empires were also mixed farms and pastoralists (they would have understood the Indo-Europeans' way of life more readily than our own), and the success of their animals was, generally speaking, their success.

The Australian Aborigines had only one domesticated animal, the dingo, a knee-high dog of the size the English used for chasing foxes. Amerindians also had dogs, plus llamas, alpacas, guinea pigs, and several kinds of fowl, but that was all. For almost every purpose – for food, leather, fiber, or carrying or pulling burdens – the domesticated animals of America and Australia were inferior to those of the Old World. If the Europeans had arrived in the New World and Australasia with 20th century technology in hand, but no animals, they would not have made as great a change as they did by arriving with horses, cattle, pigs, goats, sheep, asses, chickens, cats, and so forth. Because these animals are self-replicators, the efficiency and speed with which they can alter environments, even continental environments, are superior to those for any machine we have thus far devised.

Let us begin with what is possibly the “weediest” of all the large domesticated animals, the pig. Pigs convert 1/5th of what they eat into food for human consumption, as compared with 1/20th or less for beef steers.

Swine are omnivorous, and there were more kinds of nourishment available to them in the early colonies across the seas than to any of the species of imported animals that were to be of prime importance economically.

Healthy sows have large litters, up to 10 or more piglets apiece, and with an abundance of food, pigs can increase at the velocity of funds deposited a high compound interest. Within a few years of Espanola's discovery, the number running wild was “*infinitos*,” and “all of the mountains swarmed with them.” They spread to the other Greater Antilles and to the mainland in the 1490s, where they continued to multiply rapidly. They followed in the footsteps of Francisco Pizarro (who allegedly began life as a swineherd) and were soon doubling and redoubling their numbers in the area of the conquered Incan empire. Their rate of increase on the mainland was

probably lower than in the West Indies because of the former's carnivores, but pigs soon increased to many, many thousands on the continents – *infinitos* again. Every last one of these swarms of pigs, said the saintly Las Casas, were descendants of the 8 pigs that Columbus had brought to Espanola in 1493.

Pigs were the favourite choice of explorers, pirates, whalers, and sealers for “seeding” remote islands to assure a supply of meat on the hoof for the next set of transient Europeans or Neo-Europeans to come along. As a result, pigs were already running wild on islands in the Rio de la Plata, on Barbados and Bermuda, on Sable Island off Nova Scotia, on the Channel Islands of California, and on islands in the Bass Strait between Tasmania and the mainland when mention of those patches of land first appears in the written record.

In Australia, pigs swept inland from Sydney, keeping pace with or trotting along in advance of the frontier.

The first generations of European settlers in most of the colonies in American and Australasia ate pork more often than any other flesh.

Cattle have, from the human point of view, at least 2 advantages over pigs: They are equipped with more efficient thermoregulating systems and are more tolerant of heat and direct sunlight; they specialize in turning cellulose – grass, leaves, sprouts – that humans cannot digest into meat, milk, fiber, and leather, in addition to serving as draft animals. These characteristics, added to the natural self-reliance of cattle, make them a species as good at taking care of themselves in open grassland as pigs are in forest and jungle. The cattle that Columbus carried from the Canaries to Espanola in 1493 certainly had that capability, as did their descendants who were living as breeding herds in the West Indies by about 1512, in Mexico in the 1520s, in the Incan region in the 1530s, and in Florida in 1565. By the end of the century they were in New Mexico, and in 1769 they arrived in Alta California.

The trustworthy Felix de Azara, who told us about weed in the pampa in the last chapter, estimated the number of cattle in that grassland between 26 degrees S and 41 degrees S circa 1700 at 48 million, feral cattle in numbers comparable to those of buffalo in the Great Plains in their heyday.

To maintain a measure of control over these frontier cattle and other semidomesticated animals that roamed the woods from Nova Scotia to the lower Mississippi, one easily obtained item was needed: salt. A stockman would locate his herd by listening for the bell hung around the neck of the herd leader and then approach with a cake of salt in his outstretched hand. While the animals lick the salt, he could harness or yoke or select for slaughtering those he wanted.

The colonizing First Fleet arrived in Australian waters in 1788 with a discomfiting number of livestock on board, obtained at Cape Town, South Africa. The master's mate on the *Sirius* declared that the ship looked like a livery stable.

By 1804, the feral herds (“mobs,” to be properly Australian) numbered 3,000 to 5,000 head.

By 1820, the number of cattle in the tame herds of New South Wales was 54,103; 10 years later it was 371,699. In another human generation, Australia would have millions.

Horses died out in the Americas some 8,000 to 10,000 years ago, and returned again only when Columbus carried several to Espanola in 1493. The Iberians, initially a minority wherever they went in the New World, found horses effective, indeed an absolute necessity, in fighting the Amerindians, and so they brought the animals with them everywhere. Horses propagated rapidly in most of the colonies – not with the wild abandon of pigs perhaps, but rapidly. Even in coastal Brazil, where the climate is too hot to be ideal for horses, there were plenty of them by the end of the 16th century, and the settlers were shipping them to Angola.

Seven horses came to Australia in 1788 with the First Fleet. The governor reported next winter that “the horses do very well,” but that was not true, or not for long, at least. Only 2 of them survived the first years, and not until good South African mares arrived in 1795 did the number of horses really begin to increase. In 1810 there were 1,134, a decade later 4 times as many, and the settlers were even starting to export a few.

But they are amazingly durable and need no more feed than what they can find for themselves, summer or winter. They make excellent horses for working stock, intelligent and able to “turn on a cabbage-leaf.”

We could go on at length about goats, dogs, cats, even camels, and go on further to point out that domesticated birds – chickens, for instance – prospered in the Neo-Europes, but the point has already been made: Old World livestock prospered in the Neo-Europes. In fact, they did amazingly better in the Neo-Europes than in their homelands - a paradox. Let us examine the story of what might be described as the Neo-Europes’ only domesticated insect, the honeybee. If this Old World insect did as well in the Neo-Europes as did pigs, cattle, and horses, then the forces behind the success of Old World immigrants must have been pervasive indeed.

There are many kinds of bees and other insects producing honey all round the world, but the one insect that combines high production of honey with being amenable to human manipulation is the honeybee, a native of the Mediterranean area and the Middle East. There humans collected honey (and wax, for many peoples more important than the sweet product) long before written history began.

The first honeybees brought to North America arrived in Virginia in the early 1620s, where honey became a common food in the 17th century. In Massachusetts, bees came ashore no later than the 1640s, and by 1663 they were thriving “exceedingly,” according to John Josselyn. The immigrant insects did as well or better than the Europeans themselves in 17th century British America.

Australia has small stingless bees, which the Aborigines valued for the very sweet product, but it was as innocent of true honeybees as America. These arrived in Sydney on 9 March 1822 on the ship *Isabella*, along with 200 convicts. Once established in New South Wales, the bees propagated and swarmed with the same vigor as in America. They were introduced in Tasmania in 1832 or shortly before, and the first have their swarmed either 12 or 16 times the first summer ashore, according to which account one accepts. It seems that several of the eucalypti, native to Australia, are among the best of all honey sources in the world. When Anthony Trollope visited Australia in the early 1870s, he found the alien bee much more plentiful than the native, and honey to be “a customary delicacy with all the settlers.” A hundred years later, Australia is one of the world’s largest producers and exporters of honey.

The creatures we have discussed thus far went to the colonies because the colonists wanted them, but others crossed the seams of Pangaea without invitation. These varmints pose a very interesting set of animals for us because whereas it can be argued that the barnyard organisms succeeded overseas because the Europeans worked for their success (not necessarily true, but let us accept that argument for the moment), no one would argue that rats, for instance, succeeded because the settlers want them for neighbours. On the contrary, Neo-Europeans have made gargantuan efforts to exterminate them. If they have thrived in the Neo-Europes, then the forces encouraging the success of the Old World creatures in the colonies must be truly powerful.

Rats shipped as stowaways with the Iberians everywhere they went in America, but the accounts of the *conquistadores* omit mention of them. We do, however, know a little about their early years on the Pacific coast of South America, thanks (as with weeds) to Bernabe Cobo and Garcilaso de la Vega. There were several indigenous species of rodents in Peru and Chile, but none equal to the immigrant rats adapting to the ways of European civilization. It was the latter, in all likelihood, that were the protagonists in the 3 plagues of rats (and of mice, too) that swept Peru between the arrival of Pizarro and 1572.

Two hundred years later, at the beginning of the 19th century, the rats were so numerous that at night people stumbled over them in the streets: “Every house swarms with them, and granaries are dreadfully taxed. Indeed, the increase in that species seems to have kept pace with the cattle in those regions.”

Immigrant rats almost extinguished Jamestown, Virginia. In 1609, when the colony was barely 2 years old, the settlers found that their stores of food had been consumed by “the many thousands of rats” from the English ships. The settlers were reduced to dependence on their own meager skills as hunters, fishermen, and farmers for nourishment, and to dependence on Amerindian generosity. At about the same time, the French at Port Royal, Nova Scotia, were also doing battle with multitudes of rats that they too, must have inadvertently introduced. The Amerindians nearby were victims as well, beset with this entirely new kind of 4-legged varmint that had come “to eat or suck their fish oils.”

Neo-Europeans did not purposely introduce rates, and they spent millions and millions of pounds, dollars, pesos, and other currencies to halt their spread – usually in vain. The same is true for several other varmints in the Neo-Europes – rabbits, for instance. This seems to indicate that the humans were seldom masters of the biological changes they triggered in the Neo-Europes. They benefited from the great majority of these changes, but benefit or not, their role often was less a matter of judgment and choice than of being downstream of a bursting dam.

Were there animals from the Neo-Europes that swarmed over Europe and the Old World? Was the exchange anything like even? The answer, which the reader must be expecting by this time, is no.

BLM 4.3

Alfred W. Crosby, *Ecological Imperialism*

Ills:

We must examine the colonial histories of Old World pathogens, because their success provides the most spectacular example of the power of the biogeographical realities that underlay the success of European imperialists overseas. It was their germs, not these imperialists themselves, for all their brutality and callousness, that were chiefly responsible for sweeping aside the indigenes and opening the Neo-Europes to demographic takeover.

The evidence is that when isolation ceases, decimation begins; hence the reasonable belief of the Yanomamas that “white men cause illness; if the whites had never existed, disease would never have existed either.”

The isolation of the indigenes of the Americas and Australia from Old World germs prior to the last few hundred years was nearly absolute. Not only did very few people have any original cross the great oceans, but those who did must have been healthy or they would have died on the way, taking their pathogens with them. Indigenes were not without their own infections, of course. The Amerindians had at least pinto, yaws, venereal syphilis, hepatitis, encephalitis, polio, some varieties of tuberculosis (not those usually associated with pulmonary disease), and intestinal parasites, but they seem to have been without any experience with such Old World maladies as smallpox, measles, diphtheria, trachoma, whooping cough, chicken pox, bubonic plague, malaria, typhoid fever, cholera, yellow fever, dengue fever, scarlet fever, amebic dysentery, influenza, and a number of helminthic infestations. The Australian Aborigines had their own infections –among them trachoma – but otherwise the list of Old World infections with which they were unfamiliar before Cook was probably similar to the list of Amerindian slaughterers.

Indications of the susceptibility of Amerindians and Aborigines to Old World infections appear almost immediately after the intrusion of the whites. In 1492, Columbus kidnapped a number of West Indians to train as interpreters and to show to King Ferdinand and Queen Isabella. Several of them seem to have died on the stormy voyage to Europe, and so Columbus had only 7 to display in Spain, along with some gold trinkets, Arawack finery, and a few parrots. When, less than a year later, he returned to American waters, only 2 of the 7 were still alive. In 1495, Columbus, searching for a West Indian commodity that would sell in Europe, sent 550 Amerindian slaves, 12 to 35 years of age, more or less, off across the Atlantic. Two hundred died on the difficult voyage; 350 survived to be put to work in Spain. The majority of these soon were also dead “because the land did not suit them.”

We have some idea of the source of the Aborigines’ morbidity and mortality: pulmonary infection. But what killed the Arawacks in 1493 and 1495? Maltreatment? Cold? Hunger?

Overwork? Yes, and no doubt about it, but could this be the entire answer? Columbus certainly did not want to kill his interpreters, and slavers and slaveholders have no interest whatever in the outright slaughter of their property.

The most likely candidates for the role of exterminator of the first Amerindians in Europe were those that killed so many other Arawacks in the decades immediately following: Old World pathogens.

Smallpox, an infection that usually spreads from victim to victim by breath, was one of the most communicable of all diseases and one of the very deadliest. It was an old human infection in the Old World, but it was rarely of crucial importance in Europe until it flared up in the 16th century. For the next 250 to 300 years – until the advent of vaccination – it was just that, of crucial importance, reaching its apogee in the 1700s, when it accounted for 10 to 15% of all deaths in some of the western European nations early in the century.

Smallpox first crossed the seams of Pangaea – specifically to the island of Espanola – at the end of 1518 or the beginning of 1519, and for the next four centuries it played an essential role in the advance of white imperialism overseas as gunpowder – perhaps a more important role, because the indigenes did turn the musket and then rifle against the intruders, but smallpox very rarely fought on the side of the indigenes. The intruders were usually immune to it, as they were to other Old World childhood diseases, most of which were new beyond the oceans. The malady quickly exterminated a 1/3 or 1/2 of the Arawacks on Espanola, and almost immediately leaped the straits to Puerto Rico and the other Greater Antilles, accomplishing the same devastation there. It crossed from Cuba to Mexico and joined Cortes's forces in the person of a sick black soldier, one of the few of the invaders not immune to the infection. The disease exterminated a large fraction of the Aztecs and cleared a path for the aliens to the heart of Tenochtitlan and to the founding of New Spain. Racing ahead of the *conquistadores*, it soon appeared in Peru, killing a large portion of the subjects of the Inca, killing the Inca himself and the successor he had chosen. Civil war and chaos followed, and then Francisco Pizarro arrived. The miraculous triumphs of that *conquistador*, and of Cortes, whom he so successfully emulated, are in large part of the triumphs of the virus of smallpox.

Smallpox is a disease with 7-league boots. Its effects are terrifying: the fever and pain; the swift appearance of pustules that sometimes destroy the skin and transform the victim into a gory horror; the astounding death rates, up to 1/4, 1/2, or more with the worst strains. The healthy flee, leaving the ill behind to face certain death, and often taking the disease along with them. The incubation period for smallpox is 10-14 days, long enough for the ephemerally healthy carrier to flee for long distances on foot, by canoe, or, later, on horseback to people who know nothing of the threat he represents, and there to infect them and inspire others newly charged with the virus to fill to infect new innocents.

The first *recorded* epidemic of smallpox in British or French North America erupted among the Algonkins of Massachusetts in the early 1630s: “Whole town of them were swept away, in some not so much as one soul escaping Destruction.” William Bradford of Plymouth Plantation, a few miles south, provided a few more details on just how hard the Algonkins nearby were hit, and how the death rates could soar to such heights in these epidemics. Some of the victims, he wrote: fell down so generally of this disease as they were in the end not able to help on another, no not to make a fire nor fetch a little water to drink, nor any to bury the dead. But would strive as long as they could, and when they could procure no other means to make fire, they would burn the wooden trays and dishes they ate their meat from, and their very bows and arrows. And some would crawl out on all fours to get a little water, and sometimes die by the way and not be able to get in again.

The disease raged through New England, on west into the St. Lawrence – Great Lakes region, and from there no one knows how much farther. Smallpox whipsawed back and forth through New York and surrounding areas in the 1630s and 1640s, reducing the populations of the Huron and Iroquois confederations by an estimated 50%.

After that, smallpox never seemed to stay away for more than 2 or 3 decades at a time. The missionaries, Jesuit and Mennonite, the traders from Montreal and Charleston – they all had the same appalling story to tell about smallpox and the indigenes. In 1738 it destroyed half the Cherokee, in 1759 nearly half the Catawbas, in the first years of the 19th century 2/3s of the Omahas and perhaps ½ the entire population between the Missouri River and New Mexico, in 1837-8 nearly every last one of the Mandans and perhaps ½ the people of the high plains. Every European people to establish major settlements in North America – the English, French, Dutch, Spanish, and Russian – recorded, sometimes in gloom, sometimes in exultation, the horrors of smallpox running loose among Americans who had never know it before.

Smallpox may have reached the pampa as early as the 1520s or 1530s, as suggested earlier. In 1558 or 1560, smallpox appeared again (or for the first time) in the grasslands of the Rio de la Plata and killed, says a hearsay account, “more than 100,000 Indians.” We have only one source for this, but the explosion of smallpox in Chile and Paraguay at about the same time and in Brazil from 1562 to 1565, killing masses of indigenes, provides strong support for this report of the disease afflicting the people of the lower reaches of the Rio de la Plata.

The impact of smallpox on the indigenes of Australia and the Americas was more deadly, more bewildering, more devastating than we, who live in a world from which the smallpox virus has been scientifically exterminated, can ever fully realize. The statistics of demographic decline are cold, the eyewitness accounts at first moving, but eventually only macabre. The impact was so awesome that only a writer with the capabilities of a Milton at the height of his powers could have been equal to the subject, and there was no one like him on Espanola in 1519 or in New South Wales in 1789. We are obliged to turn not to the witnesses but to the sufferers for enlightenment, and they made legends, not epic poems. The Kiowa of the southern Great Plains

of North America, who suffered at least 3 and probably 4 epidemics of smallpox in the 19th century, have a legend about the disease. Saynday, the mythic hero of the tribe, comes upon a stranger dressed in a black suit and a tall hat, like a missionary. The stranger speaks first:

“Who are you?”

“I’m Saynday. I’m the Kiowa’s Old Uncle Saynday. I’m the one who’s always coming along. Who are you?”

“I’m smallpox.”

“Where do you come from and what do you do and why are you here?”

“I come from far away, across the Eastern Ocean. I am one with the white men – they are my people as the Kiowas are yours. Sometimes I travel ahead of them, and sometimes I lurk behind. But I am always their companion and you will find me in their camps and in their houses.”

“What do you do?”

“I bring death. My breath causes children to wither like young plants in the spring snow. I bring destruction. No matter how beautiful a woman is, once she has looked at me she becomes as ugly as death. And to men I bring not death alone but the destruction of their children and the blighting of their wives. The strongest warriors go down before me. No people who have looked at me will ever be the same.”

The whites took a sunnier view of imported diseases. John Winthrop, first governor of Massachusetts Bay Colony and a lawyer by training, noted on 22 May 1634, “For the natives, they are neere all dead of small Poxe, so as the Lord hathe cleared our title to what we possess.” same.”

Smallpox was only one of the diseases the *marinheiros* let loose on the native peoples overseas – perhaps the most destructive, certainly the most spectacular – but only one.

Old World pathogens in their dismal variety spread widely beyond the seas of Pangaea and weakened, crippled, or killed millions of the geographical vanguard of the human race. The world’s greatest demographic disaster was initiated by Columbus and Cook and the other *marinheiros*, and Europe’s overseas colonies were, in the first stage of their modern development, charnel houses. Afterward, mixed European, African, and indigene societies quite unlike any that had ever existed before grew up in the colonies in the torrid zone, with the single major exception of northern Australia. The temperate –zone colonies developed less distinctively; they became Neo-European, with only minorities of non-whites.

Cahokia, in its heyday, about 1200 A.D., was one of the great ceremonial centres of the world, served by a village with a population estimated by some archeologists as upward of 40,000. (The largest city in the United States in 1790 was Philadelphia, with a population of 42,000.)

The exchange of infectious diseases – that is, of germs, of living things having geographical points of origin just like visible creatures – between the Old World and its American and Australasian colonies has been wondrously one-sided, as one-sided and one-way as the exchanges of people, weeds, and animals. Australasia, s far as science can tell us, has exported not one of its human diseases to the outside world, presuming that it has any uniquely its own. The Americas do have their own distinctive pathogens, those of at least Carrion’s disease and Chagas’ disease. Oddly, these very unpleasant and sometimes fatal diseases do not travel well and have never established themselves in the Old World. Venereal syphilis may be the New World’s only important disease export, and it has, for all its notoriety, never stopped population growth in the Old World.

BLM 4.4

Overview of the Columbian Exchange

Millions of years ago, the landmass Pangaea drifted apart creating two distinct worlds (McNeil, 2008). North and South America, commonly referred to as the New World, were separated from Eurasia and Africa, which are the Old World (Crosby, 2007). According to Crosby (2007), this continental shift and separation lasted so long that two distinct worlds were created. For instance, rattlesnakes evolved in the New World while vipers were present in the Old World (Crosby, 2007). These two worlds were reunited in 1492 when Columbus set foot in the Americas (Crosby, 2007).



The Columbian exchange started to connect the New and Old Worlds with the transmission of ideas, plants, animals, and diseases. Two worlds that had grown apart with very different organisms started to become homogeneous (Crosby, 1972). Nowadays historians and biologists are still investigating the lasting effects of some of the plants and animals Columbus and other explorers exchanged between the two worlds (McNeil, 2008).

Columbus had no idea what kind of new world he was creating. Thinking he was in Asia, Columbus died never knowing what a connected and now biologically chaotic world he started (Crosby, 1972). The differences between the worlds were vast (Crosby, 1972). Some of the most influential items brought from the Old World to the New World were horses, pigs, chickens, rice, sugar cane, smallpox, malaria, and the common cold (Learn NC, 2008). A few items from the New World to the Old World included maize (corn), turkeys, llamas, potatoes, peanuts, tomatoes, and pineapple (Learn NC, 2008).

The Columbian exchange was not an accident. As Europeans sailed across the world, they brought with them foods they knew how to cook and materials they knew how to use (Crosby, 2007). Europeans knew how to cook rice, ride horses, and butcher pigs and chickens. They were comfortable living with the items they had, but they were traveling to a new place and

had no idea what the place would be like. When coming to the New World, they used what they already knew how to use and learned to use new items from the New World. After finding out how useful items were from the New World, they traveled back to the Old World with the items. These items spread throughout the Old World. A huge biological change occurred due to travelers introducing items to the other world. The environments of the world changed so drastically that the inhabitants of the worlds were affected (Crosby, 1972).



Imagine the Americas without pigs and horses or even the common cold. Imagine Ireland without the potato. The Columbian exchange changed history and changed two worlds that were once very separate worlds (Mann, 2011). The spreading of ideas and culture have impacted history, but the changes Columbus brought about biologically changed the world in ways scientists are still realizing and figuring out now (Mann, 2011). Without the Columbian exchange, history would be different.

The Columbian Exchange, <http://thecolumbianexchange.weebly.com/index.html>

BLM 5.1

Guns, Germs, and Steel

Episode 2: Conquest

Why did the Conquistadors come to South America? And who was their leader?

Where was the Inca empire and how vast was it?

Where was the origin of agriculture and civilization?

Why were animals so vital to the development of civilization?

What was the only large domesticatable animal native to the New World?

What forever changed the face of warfare?

Why European metallurgy so much further advanced than the Inca's?

Where did Pizarro get his strategy to face the Incas? And which of the Big 6 is this an example of?

What is cuneiform and what is its importance?

How was geography tilted in favour of the Europeans in every way?

What were the 3 features that helped the Spanish capture the Incan King?

Why did the Spaniards pass their diseases onto the Incas and not the other way around?

What percent of people native to the Americas do some scholars estimate were killed by Old World diseases?

What kind of conquerors does Jared Diamond call the Spanish?

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