

Global Awareness and Sociological Imagination

An Interactive Qualifying Project Report

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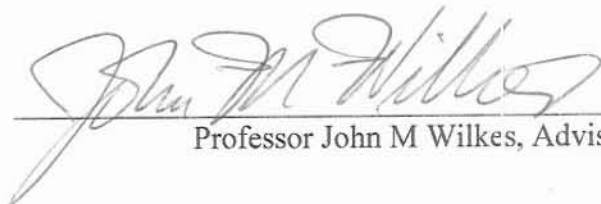
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By



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1. Europe
2. Middle East
3. Global Inequality

Abstract

How do you seamlessly link a course on modernization in Europe and the Middle East (designed to impart a "sociological imagination") with a course on all the other continents in the world (designed to consciousness raise about global inequality)? My job was to focus on the transition at the end of the first course, which involved being the coach for 5 teams of American students who were about to role play European diplomats and bureaucrats negotiating with their Middle Eastern counterparts in a 5 hour live role playing game. The larger intellectual task was to construct a mental around the world tour for WPI students with little international experience or background.

Acknowledgements

This project could not have gotten half as far as it did without the help of Professor Wilkes, whose guidance and assistance kept me focused on what was actually important.

Table of Contents

Abstract	2
Acknowledgements.....	3
Acknowledgements.....	3
Table of Contents.....	4
1. Introduction.....	5
2. Literature Review.....	9
2.1. Diamond’s Guns, Germs, and Steel: The Fate of Human Societies	9
2.2. Gavin Menzies and 1421: The Year China Discovered America.....	15
2.3. Jack Kelly’s Gunpowder.....	18
3. Descriptive Analysis of the First Class.....	25
3.1. Class Description	25
3.2. Modernization and critical thinking.....	25
3.3. The Live Role Playing Game.....	27
4. Analysis of the second Class.....	33
5. Conclusions.....	36
6. Appendix A: Character Sheets for the RLPG	39
6.1. Keith Collard: British Character – Military/Security Delegate	39
6.2. Diana Bracco – Italian Scientist.....	41
6.3. Jose Cobo Fernandez - Bureaucrat-Diplomat for the Spanish delegation	44
6.4. Francois Rousseau - Economics and Finance Specialist Diplomat	46

1. Introduction

This Interactive Qualifying Project started with a class project dealing with the relationships between Middle Eastern countries and Europe. The class as a whole dealt with the modernization as it was experienced in Europe, and as it affected the relative wealth and power of Europe and the Middle East, the course evolved into a study of comparative modernization. Concerned and intrigued by the topic, I soon looked into the reasons why the two regions developed such in different ways when they were once so similar, actually as different parts of the same Roman Empire. This is when the more general topic of regional inequality by continent came into play.

The topic of Global Inequality by continent has been a long-standing concern in the literature starting with the European Age of Discovery, something a Spaniard like myself heard about from youth as a national Golden Age. Part of the Islam-Christian struggle symbolizing the experience of Europe and the Middle East was fought out in my homeland. However, I soon learned that this was just a small part of the global comparison being made as modernization occurred in Europe and changed the global balance of power.

My first step in trying to understand such differences on a global scale was to read and study "Guns, Germs and Steel" by Jared Diamond. This book presents an original and very interesting perspective on some of the reasons why Eurasia got ahead of the other continents and went out to these other places to discover them. Eurasia developed at a faster pace too and some of the others did not even develop an agrarian empire like Egypt or Rome.

The most interesting aspect of Diamond's theory is the approach he uses to explain the contemporary pattern of inequality. Instead of using standard arguments based on cultural or racial differences to explain the rate of technical innovation or relatively recent historical events, such as colonialism, he tries to explain the world's balance of power and material wealth, based on the genetics of plants and animals, geographical phenomena, climate, etc. He actually states that the shape of the political-economic world as we know it was determined about 12,000 years ago. This is a very controversial book because of the means and metrics used to support his thesis.

Once I became so interested in the matter, and found out how little American students knew about even about the last 500 years of European history, I started looking into the role playing game developed for Professor Wilkes' class *Introduction to Sociology and Cultural Diversity* as a way to painlessly teach about Europe. This is a very important matter since WPI students go to projects center in Spain, Britain, and Italy (Venice) with some regularity to do IQP projects.

The game as I envisioned it was the best way to introduce fairly complex topics in international relationships and cultural differences between Europe and the Middle East and set the stage to take those issues world wide – like the Global program is supposed to do. In addition to going to Europe, WPI students go to project centers in Bangkok, Hong Kong, Namibia, Costa Rica, Puerto Rico, and possibly Ecuador (Ecuador was a project site in the past and people there hope WPI will reopen it). After I played the game with the students twice, once as student in Professor Wilkes' class and once again as coach for the European teams the following year; he and I worked together on the various

improvements that will be presented in this document. In combination, we want two courses to serve as an around the world mental tour addressing the question of inequality.

In October 2005 Professor Wilkes offered an experimental class called *The Global Inequality Debate*. The core of this class is built around Diamond's *Guns, Germs and Steel*. In this class others topics of importance in the matter of Global Inequality are also addressed. An alternative theory of The Chinese sailing around the world in 1421 was used to make the point that cultural and social policy do matter, factors which were ignored by Diamond. If brought back in they could explain differences in the level of development (or modernization). The history of Gunpowder was used to make the same point about how culture changes the application of a common core technology. A book read by the STS 221X class about the Americas experience before Columbus reached it in 1492. This book *1491* is also controversial about the impact of "discovery" by Europe and makes amazing claims about how advanced the American Indian societies were before being destroyed by epidemics.

After reviewing the contents for the second class, we decided to study the pedagogical advantages of a WPI student taking both classes back to back. With this last part, we realized that we should introduce some changes in the end of the first class and in the beginning of the second class for two reasons: first to make the second class more tempting and second to make the transition between both classes as smooth and easy as possible. Thus, I became the tour guide for future students taking these two courses, and redesigned the connection.

Clearly some revisionist history was coming and it seemed likely that at least most of the materials in *1491*, and some from *1421* were going to prove to be true. The

students response to this “critical thinking” about paradigm bursting idea was interesting to watch. I had a solid background and I was struggling. They were simply stunned that what they thought they knew could be so wrong. Attempts to deal with all the cognitive dissonance went pretty well in the part of the class that was trying to put case study materials in place to critique *Guns, Germs and Steel*. The part of the class that read *1421* was not able to synthesize a new picture out of all the pieces they were trying to assemble. The range of opinion on whether Menzies was credible was too great. Those of us dealing with Diamond knew that there were problems, identified and noted them, and moved on to learn from his daring thesis. A new system was starting to take shape.

2. Literature Review

This section of the document is a presentation of my reviews of the different books we read in the two classes I try to link. These books represent the main resource of information for this project, excluding of course the direct experience in the classroom and the interaction with students, which represents a vital source for the role playing game study.

2.1. *Diamond's Guns, Germs, and Steel: The Fate of Human Societies*

Diamond's "Guns, Germs and Steel" goes over the possible reasons of why some countries or specific regions around the world have not achieved the same level of wealth and power (related to "modernity") as the others. The wealth and power of nations and technological advancement are defined by Diamond as the basis for relative power of nations and in continents the book's title "Guns, Germs and Steel" indicates his orientation. However, according to their importance in the book, and in history itself I would have found it more appropriate to title the book "Guns, Germs and Crops", or "Guns, Germs and Cows", although steel sounds better.

The main thesis he tries to defend in the book is that after the spreading of the different peoples around the world about the year 13000 B.C. started in a similar situation technology and social structural wise. However, differences then arose and he tries to explain that in terms of geography and biology, the differences in their environment that would predetermine the society's fate, or as the title expresses "The Fates of Human Societies." At the very beginning Diamond states that there are not influential biological differences among the different races, such as differences in intelligence, around the globe, he just considers environmental factors, such as climate,

altitude and latitude, geographical factors like deserts, or oceans or how some areas are more seasonal than others are. This is very important – as are the infectious diseases vectors. In Africa and the infectious diseases were not passed from human to human in cases, such as malaria or sleeping sickness. There were environmental factors that produced biological differences in sickle cell anemia rather later. The diseases did not require a dense human population nor high concentration of cattle to spread around, so they were essentially environmental. Diamond's book only attends to these factors, which as we will see, although very impressive, and underestimated in the past are probably not sufficient to come up with a viable explanation of today world's global inequality. He ignores some factors in the historical record.

The first theme is the easiness to grow crops, which in my opinion is the most important of all the topics covered in the book. Based on the advantages of having certain "founder" crops he starts his theories of how inequality emerges. These advantages come from geographic and climatic differences among the different locations as well as the availability of certain basic subsistence crops. The capability developed by certain societies to grow large amounts of food is what essentially what gave some societies the capability to enlarge, differentiate and stratify as societies. The easier it was for a society to grow subsistence crops in massive quantities, the more likely these societies were to get bigger denser populations. The main argument is pretty simple, when a society develops a system capable of providing a large food supply and surplus, more members can be supported by the society who do not have to farm for themselves. Surpluses allow the society to have other members exclusively performing other tasks that contribute to their community, such as a military for defense. Therefore, when you

have an appropriate climate, and one can grow lots of food, your community is capable of growing in size, density, and complexity. Complexity is when you have a division of labor and a hierarchy to control and coordinate activities. You can also have other specialists like scientists, priest, and engineers in your community. This fact is very important when your community has to support an army (or a small group of soldiers, proportional to the society's size). The matter of specialization is pivotal to understand the development of societies. An important example in this matter is the figure of the Shaman or Priest. This priest also represented one of the first figures of a more structured society, having this priest doing more advanced tasks such as accountability. This man, that obviously did not work the land to feed his neighbors, had the "free" time to "communicate with the Gods" that were telling him when to plant or when to harvest.

It should be mentioned that, the domestication of animals as well as vegetables, was an important factor, not only because of the obvious value of the food, but the use of animals in other civil and military tasks as well as the growing of germs that can mutate and affect humans, specially to those ones living closely with animals.

So once we have big groups of people that remain static at certain place, they keep growing, and growing, and then is when the "germs factor" comes into the game. Explaining it from a genetic-evolutionary point of view, as he loves to do, Diamond gives us plenty of arguments about why large, packed societies develop illnesses, and therefore its corresponding defenses, and how small societies with fewer members and less contact with domestic animals do not develop infectious diseases at such a large rate.

Once Diamond convinces us of the initial setup for what would explain the relative wealth, power and development state of a society, he continues explaining the

interactions between societies. An important matter is how some not too advanced societies are not mountain ranges or deserts. He exemplifies this matter with Africa, and how the peoples from North Africa (north of the Sahara) was able to support huge societies, such as the Egyptian, but how the communities south of the Sahara had no chance of interaction with them before the camel was domesticated, and therefore the technology base had to change to permit further technology transfer.

So big populated societies, that can maintain capable of interaction with other more advanced societies due to natural barriers such as themselves, and are able to support scientists and bureaucrats as well to maintain armies, and these societies are able to equip their armies with not only the latest technologies developed by the scientist and engineers, they can adopt technologies acquired elsewhere. The more efficient organization supplied by the bureaucrats, combined with disease resistance to virulent nasty germs, you come up with societies capable of conquering other smaller less densely populated societies.

The complete argument that Diamond presents is very coherent, but in my opinion he sometimes he removes some obstacles to his theory through how he defines the question. By obstacles, I mean that I think that some extremely important factors that probably determine the world today as we know it, are left out to keep things simple for him. This lack is due to the fact that he bases his entire theory on non cultural differences. For instance, when the class studied "What Went Wrong" the Middle East countries once were way more powerful than the West was (represented by Europe). Moreover, according to Diamond, Arabs had a better starting point and therefore they should have successfully conquered European societies. They did engulf some, and had

success for a while, but, as we have seen, Europeans started perfecting and later mastering some technologies that made them worthy adversaries to the Arab World and then superior to it. Where is this “mastering of technology” coming from? Well, Diamond probably thinks that is not an important issue to analyze in his book, or probably it just does not fit in his “ecological” theory. Although he introduces the technology issue through the evolution of writing, he lacks the ability to explain the influence of other non-subsistence technologies.

Another counter example could be China. Why when China had the ability to spread its culture and conquer the world via natural superiority did not do it? Why a country like China, that we all know developed a first stage of gun powder, had ships and obviously had one of the most developed bureaucracy at the time, was not a conquering “superpower” with a colonial system like that of Europe in the 19th Century?

Religion is also a factor that (as well as many others cultural and social factors) is not well covered by Diamond. I assume that is not covered properly because as a cultural factor it does not fit in his environmental-evolutionary theory. As we have studied something that changed Europe, and therefore helped shape the western world as we know it today, the Protestant Reformation, a religious variable is missed. Religion, and culture itself then, is probably the most important theme evaded by Diamond in his book.

As a conclusion, I would say that that “Germs, Guns, and Steel” is extremely successful explaining an important underestimated precursor influence on human history but his model is unsatisfactory when it comes to recent history, and therefore the most important stage of global inequality. I think that the book’s title “The Fates of Human Societies” says a lot of Diamond’s perspective. He tries to argue that factors beyond their

control predetermine the relative power of the societies based on the environmental factors and the interaction between societies. I do not agree that that is all that has to be considered to explain the current wealth of nations. How can you explain today's world distribution of wealth and power without mentioning the Protestant Reformation kicking off modernization and science in Europe or the Colonial period that follows? These factors are essential, we know that, but they also come from human initiative. The capability of making decisions, of deciding to conquer, or not to conquer comes from cultural aspects impossible to explain based on crops or the climate alone. He is at his best dealing with the European conquest of the Americas where disease was a critical factor. However, he cannot explain that well why Spain instead of China carried out the conquest. The microcosm world of Oceania fits his theory pretty well too, but the difference between New Guinea and Australia is hard to explain in his terms. His book follows a pretty straightforward structure. It is an easy-to-read book; although it is extensive in both pages and scientific arguments. His theory follows a very logical path, making it an enlightening and enjoyable read. Although I have been critical with the Diamonds book, I have to say that I found it very interesting. I would say that "Guns, Germs, and Steel" provides to the reader a more comprehensive view of the world, explaining very satisfactorily the starting point for the different societies around the world. Although I would say that this view has to be complemented with some non-environmental theories that include cultural references, and the historical period does need more attention than it actually gets, given his emphasis on prehistory.

2.2. *Gavin Menzies and 1421: The Year China Discovered America*

First of all, I have to say that Menzies's book is one of the best reads that I have had in a long time. Interesting from the very beginning, Menzies captures our attention with the great story of Zhu Di, the third emperor of the Ming Dynasty, who fought the last of the Mongols still occupying some parts in the ancient China, who planned and ordered to built the Forbidden City, he also ordered to be built the largest and most grandiose fleet that the vast oceans had ever seen until World War II. Thousands of ships hundreds of them Treasure Ships were bigger than any European ship, probably until modern times. This fleet designed to integrate in a taxes and tributes system any discovered countries when sent to explore the world. The fleet could chart the world and awe potential enemies. Unfortunately, Mandarin Bureaucrats erased this period of China's history and the mysterious voyages of 1421-23 in which the fleet was largely destroyed was nearly erased from Chinas history as well.

After explaining a little the early Ming China political situation, Menzies introduces the reader to Zheng He and the four great Admirals, Hong Bao, Zhou Man, Zhou Wen and Yang Qing, ordered to sea by Zheng He and Zhu Di, All of them are similar in the structure as well as in content. The difference is that obviously they traveled through different areas of the globe. Three of them have as common starting point rounding the Cape of Good Hope and traveling to the Cape Verde Islands in the Atlantic Ocean.

The base of Menzies theory is the fact that the Chinese's ships where designed for the seas that surrounded China and its currents and winds. The Monsoon allowed them always to travel with the wind rather than against it. They made their ships almost flat,

so they could not tack in the wind with deep keels and rudders. Based in his knowing of the world's currents, Menzies could track them helped by the fact that the Chinese fleet would rarely attempt to go against the current and wind, and if it tried there would be wrecks to look for.

The other main sources of information are different maps and charts. All these charts date before Portuguese and Spanish fleets started crossing the Atlantic and Indian Oceans. By comparing these charts to the actual maps (with some adjustment due to the Chinese incapability to measure precisely longitude), he concludes that obviously someone had had to have been there before. Personally, I think that this adjustment supposedly, changing the average speed of the fleet, is far from a simple recalibration – but is designed to make the mentioned charts mach with impressive precision, the actual maps for the different areas continents. I started thinking that instead of getting the maps from the adjusted speed he calculated what would have been the speed to make the charts match the real coasts. Let's give him the benefit of the doubt on that.

Once he established what he defines as the “logical and natural” path, following in wind and current, Menzies starts searching for evidences of the huge ships or the ruins of possible settlements. He places in the routes wrecks, or stones, or DNA evidences, unusual domesticated animals in such areas and other evidences. These evidences go from ships in Australian rivers to the Bimini road supposedly used to repair damaged ships after going through the reefs.

The Bimini road is one of the most exciting passages in the book. An entire road some of it made out of foreign stone shaped in and odd way under water but in the middle of the beach! “Atlantis” some said, “aliens” others said. Personally, I prefer to believe

Menzies's theory. If you think about it, ancient Chinese, even if crazy, sounds better than aliens. Other examples such as the Rhode Island tower or the stones with non-European characters are extraordinary things. In an exceptionally consistent way, Menzies is able to place wrecks, and other proofs to come up with a revolutionary theory worth examination.

I have already mentioned this before, but I think that 1421 is an unfinished book. I think that Menzies tries to publish a really good story and supported by some material evidence, but he does not offer proofs that would be definitive, yet, in principle, the wrecks of 600 ships and survivor communities should be there if he is right. "Coming soon in my webpage", his favorite sentence. I think that he is onto a big thing, and older, retired, he wanted to publish as soon as he had enough persuasive and thought provoking material to sell a book. The change in accepted historical interpretation of one of the most important periods of the European history is not an easy thing to do. Being remembered in history books as the man that uncovered the biggest cover-up ever, it is a very big thing too. He not only says that Columbus was not the first Eurasian to discover America or that Portuguese were not the first one sailing around the Cape of Good Hope, he says that Henry the Navigator had privileged information before Magellan left Europe, and Columbus had access to some of it too.

Once published "1421" will generate tone of information, and I am looking forward to see the second edition of this book to see if the case gets stronger. Now the idea is out, now if they find a new wreck in the Caribbean instead of saying, "this has to be Spanish," someone actually would say "is it made of teakwood and if it is a Chinese junk?"

2.3. Jack Kelly's Gunpowder

Kelly's *Gunpowder* explains the history of the technology with the same name. The story starts sometime during the tenth century in China and he covers its history until the American Civil War. As we will see, Gunpowder has probably been the technology that changed societies as no other technology has through history.

Black powder's first successful use was to entertain the people of China with fireworks. Though there was a prior period in which it was ingested as a medicine that passed rapidly, this use soon changed, most experts point to its origins in China around 1100 when its only purpose was to create fireworks displays. There seem to have been places in China where the materials were mixed naturally and analysis of them led to documents by an alchemist about its fabrication. The process that the Chinese followed had local variants until they found a "reliable" and stable mix of charcoal, sulfur, and saltpeter.

The first of military application gunpowder was in fire lances. The basic idea was to attach a gunpowder deposit next to the lance's blade to frighten, distract, and burn the enemy. These devices were first used by the Chinese against the Mongols around 1200. This flamethrower-like device represents the origin of gunpowder in military applications. Although these novel and sometime sophisticated devices were not really effective, some saw new possibilities in military applications. The Chinese also dropped bombs on the Mongols from their walled fortifications.

Although these explosive weapons were more effective, the horsemen still won. A revolutionary concept applied in the field was to use the energy of the gunpowder to propel objects, instead of using the energy directly on the enemy. The first of the kind was the Chinese "erupter." The device worked as primitive cannon, burning gunpowder

to propel metallic and porcelain pieces. The victorious Mongols were not interested in heavy military equipment or defending walls. However, they took the incendiary rockets/arrows with them to invade the Middle East. European Crusaders would learn of the black powder from The Saracens. It was not until 1300 when gunpowder was used in Europe as part of the military tactics. It was used by the English king Edward III in the battle of Crecy against the French king of the time, Philip VI. Although the primitive cannons did not produce a significant number of casualties compared to English Longbows, the confusion and disturbance produced among the enemy's troops, especially those on horses, when fired made them an important part of the army's success. From this point on the race to obtain, develop and build cannons and firearms transformed warfare in Europe at the time. Walled fortification could be battered down.

Gunpowder and the first firearms introduced a new military concept that no country could ignore. Some of the new capabilities were rather controversial at the time. Gunpowder was opposed strongly by Knights, and other medieval figures whose armor had protected them from commoner weapons. The heroic figure of the warrior as it was known started disappearing. The fact that a commoner without specific training in the use of the sword or longbow could defeat a Knight, a respected member of a noble family or even royalty was unacceptable for some time. Swordplay, the symbol always related to the figure of the traditional aristocratic warrior, slowly vanished. Muscles, fierceness did not matter when shooting cannons or pistols. Knights and others viewed this new technology as the end of a civilized era of making war in an honorable way based on a code of Chivalry and ransoming captured nobles, rather than killing them.

Gunpowder changed the political landscape of Europe in the fourteenth century. Until that point Castles represented the power of the warlords. The social organization in the feudal system was based on the fortified castle as a core citadel in a walled city. Other castles were in remote places enhancing natural fortifications. With its great walls and towers the castle offered a strong defense system against infantry with swords, axes, bow and arrows, and Knights on horses. Until the introduction of cannons, the only way of taking these fortresses was to lay the castle under siege for weeks, even months, starving its habitants to the point of making the city or garrison surrender. Storming the keeps with ladders battering rams and towers was too expensive to do often. Also fire arrows were not reliable. Once the bombards were introduced, this radically changed. Some of the bombards developed to take fortified cities were 26 feet long, shooting balls of almost half a ton and the necessary crew to operate it was almost of 700 men.

Cannons like these were used by the Turks to conquer Constantinople, a place that was considered unconquerable at the time due to its renowned walls and its capability for food production inside the city. By the first decade of the fifteenth century there was not a single army that did not use gunpowder to reduce walled fortifications. Now the Central Authority of the Monarch could be asserted against cities and local rulers, dukes that were – nominally Vassals of the Prince, but often defied the King.

During the Renaissance period the development centering on gunpowder was exceptional. In this period in history, when the modern sciences were born, exceptional individuals of the time such as Galileo Galilei, Biringuccio, Tartaglia and others developed math, physics, and an early chemistry. They started working in math to calculate trajectories; it is also when the first idea of common forces applied on every

mass on earth (as early theories of what we know today as gravity) were developed. They also started working in factors such as gunpowder's grain size to improve the gunpowder making it more reliable, or to make it burn a little bit slower allowing bigger cannon balls to be shot without risk of explosion through the back of the cannon. But not until the few years before the French revolution in 1789, did Lavoisier (1743-1794) study gunpowder and its reaction from a chemist's point of view. The result was the discovery of oxygen in the air and the development of a new theory of combustion focusing on the role of oxygen.

Therefore, as we can see, gunpowder not only was changing the world by its use, but also by all that was related to it. One of the most important changes was due to the size of the original cannons in the fifteenth century. Because the larger cannons they were building were not mobile in the field, they needed to carry them and use them from a more versatile platform. In the beginning they used animals to pull on carry these pieces of cannons, but soon enough they found too limiting. It was realized that ships could do this work of transporting cannons pretty neatly. So they started mounting cannons on ships, and because of its effectiveness, they started building more and larger ships, and therefore more cannons. Soon European countries found themselves no longer holding key battles on European soil, but for the control of European's seas. Ships turn into the most effective war machines with a huge concentration of firepower that could be brought up to a seaport city. These were the centers of trade and much wealth as well.

A dramatic example of the change in the balance of power is what the Portuguese captain Vasco Da Gama achieved against Indian forces in the vicinity of Calicut in 1501. Da Gama was the first European arriving in the East after rounding the Cape of Good

Hoppe in Africa. When he got to India he brought to the ruler of Calicut some gifts, “some hats, six wash basins, two casks of honey. Those gifts were considered insulting trifles, “the poorest merchant of Mecca gave more”. Muslim Indians had little desire for the European goods, whereas European demands for spices made pepper the “black gold” of the day. After the Indian rejection for establishing a trading route, Da Gama came back four years later, but “this time with ten ships and the casks in his hold contained not honey but gunpowder”. In that battle Da Gama showed the East the Europeans newly acquired military capabilities. Da Gama’s fleet of twelve ships sunk hundreds of Indian ships. He “won” trading privileges with them. He also demanded that owners of local trading ships purchase licenses if they did not want to suffer the same treatment that the Calicut fleet had just received. Forced trade became a standard practice enforced by the “Northern Barbarians”.

Gunpowder changed the way of doing war in many ways. One interesting change was the way a soldier had to behave in the field to be under military “discipline.” Up to this point the more aggressive and fierce a soldier was the better, but with the introduction of gunpowder and the fusils, the organization and coordination of the group was essential. The new soldier had to be a cool, rational, technically precise and accurate and stay in formation as well as to move in formation to concentrate fire. Not since the days of the Macedonian Phalanx or the Roman legion had there been such an emphasis on formation, and even then, cool and rational technically precise behavior was not expected on the front line soldiers.

At the end of the eighteenth century gunpowder reached its maximum chemical potential. The key then was not to develop a better mix, but to create lighter more

accurate guns. The massive introduction of muskets and fusils during the French Revolution and the American Revolutionary War made saltpeter production the key to victory. At the end of the American Revolutionary war, England shipped about 250 tons of gunpowder for the use of its troops only for the first year of war. The colonist struggled to keep up enough to stay in the field against such a well-equipped army. The chemical industry developed around gunpowder production contributed to the beginning of the upcoming Industrial Revolution in the 19th century. Few years after this the new science of chemistry helped develop other explosive substances such as nitroglycerine. Although extremely unstable, it ended up being controlled by Alfred Nobel and what he called *dynamite*. Its applications to war rather than construction made him rich but afflicted him with guilt, so he gave some back in the form of his famous prizes.

The book covers in a relaxed-effective way the 900 years of gunpowder's history. It seems to me to be essential reading to complete the current Global Inequality Puzzle as it helps explain the rise of Europe. We can find one of the main technological factors that shaped the fate of nations and world, as we know it today. Diamond sensed that "Guns" were important, but the detailed political and cultural impact of gunpowder, the first explosive, is not covered well by his book. Indeed, it raises questions about where the technology was developed and why, that he does not want to deal with, given his theory that politics and culture do not matter. However, rate of innovation does matter in his book – and this is explained by Kelly in detail, as a accelerating rate that is not really related to population size in the way Diamond presents it.

Kelly's book addresses some really interesting questions, such as the influence of non-subsistence technologies in human evolution, or the question of why Europeans were

the ones to develop and apply the powder Chinese had known about for quite a long time and passed to the Middle East. Maybe it is the fact that Europe has been involved in some kind of war ever since the Roman Empire broke into two halves. In the key period, Europe was not unified into one nation, so there has been a war in European soil for the whole time gunpowder has existed. The materialistic European Kingdoms and their pursuit of absolute power led to this race for developing the ultimate war machine. In my opinion, parallel to the military development, we have found a remarkable progress in sciences such as math, chemistry, physics, as well as other techniques such as iron casting, ship construction, that would lead to the ability to project national power against agrarian nations and win colonies.

After 900 years of changes, and improvements Gunpowder has been replaced in almost every field of application. Kelly notes, "In only one field did its contribution continue intact. Appropriately, it was the same use to which the ancient Chinese had first put the magical and incendiary substance—delight".

3. Descriptive Analysis of the First Class

3.1. Class Description

“SS1202 Introduction to Sociology and Cultural diversity” is as the title expresses an introduction to sociology focusing on social structure, institutions and widely (cultural) beliefs in general analyzing comparatively Western Europe and the Middle East. “Hence, the plan for the class is to understand in social structural terms what modernization meant in Western Europe and then examine the experience of the Middle East as a comparative study.” The class used as a text “What Went Wrong “a book by Bernard Lewis which is a study of the Ottoman Turkish view of Europe as it modernized up until World War I. This book served as reference and starting point for arguments to come about the role of culture and social structure in modernization and the development of science and technology. The last part of this class was the Live Role Playing Game that mimics a United Nations conference on fostering peace and prosperity in the Middle East – i.e., the development of the Middle East. The game run in A term 2006 represented an important part of this Interactive Qualifying Project.

3.2. Modernization and critical thinking

One of the most important objectives of this class is to introduce the relative concept of “modern.” It is important to note that the western view of the “modern” is not shared at all by many other cultural regions. To introduce this different point of view the class studies “What Went Wrong: The Clash between Islam and Modernity in the Middle East” by Bernard Lewis. Bernard does a comparative analysis of Western Europe and the Middle East from the fourteenth century to the beginning of the twentieth century. Bernard refers to all of the Arab Islamic (mostly) regions of the time what were part of

the Ottoman Empire. This assumption creates controversy all around as he is a Turkish historian referring to an Arab and Persian region as if they were all the same. Another much-critiqued matter in the organization of this book is the fact that Lewis analyzes what is known today as Turkey and the Middle East only up to the beginning of the twentieth century. After the empire is lost to Britain and France in WWI Turkey undergoes a deep social revolution, sets up a secular democracy protected by the army, and starts to modernize under Ataturk. At this point, Turkey is no longer a valid example for Lewis' theory but it is still an Islamic nation with an Islamic culture, which makes it more, not less, interesting. However, this gets ignored in the book. Bernard Lewis' book was introduced in the class as an example of some of the Western views of the Arab World and vice versa, showing a very radical point of view to American students, a critique of modernization, by the leaders of a declining superpower. The course was organized in this way on purpose to try to pull some critical thinking from the students.

At first the class finds it pretty confusing for the students to have to read a book that the Professor disagrees with and try to anticipate what parts he will discredit in their own book review. On the other hand, it is interesting to be allowed to openly disagree with a text by an eminent Princeton Professor. An interesting analysis of this book can be found in the review done by Turkish WPI student Hasan Mert Demir and which is the focus of his Interactive Qualifying Project. His project dealt more with what Bernard Lewis left out of his book, rather than a critique of his factual presentation or his editorial slant. Still the reader emerges from knowing that what happened after 1915 to the Middle East is critical to understanding the situation there today, and that one cannot

generalize so much about nations as different as Turkey, Egypt, Iran, Algeria, and Saudi Arabia.

3.3. *The Live Role Playing Game*

“Fostering Peace and Prosperity in the Middle East Through Cross Regional Cooperation” is a Live Role Playing Game (LRPG) designed to introduce to the students the actual situation of some selected countries from Europe and the Middle East in a format that mimics a United Nations committee meeting. The goal of this game is to first have the students research in teams of three or four the European or Middle Eastern country they are assigned to represent. They represent a delegation formed by notables, such as, diplomats, technical or scientific experts, bureaucrats, military experts, and economy experts. Each team first has to research their nation from a sociological point of view (specially the cultural values, power structure, and stratification system), then present it to the class in sociological terms, and then play their roles in simulated negotiations with one another.

After playing this game twice, once as student and the second time as coach for the European delegations, I came up with a good perspective of the achieved goals and the remaining problems in the organization of this game. When I coached the European teams, I met with each team three times. In each session I guided the students through the process of research, creating their character sheets and preparing them for what the game was going to be. This last one might seem not necessary, and I actually did not realize how important this part was until we played the game. Hasan Demir, the Middle Eastern coach, did not do all this, and it showed.

The research part is something most of the students fell relatively comfortable with. I think they all did a decent job researching the specific topic of their country they are going to be experts in. From this information, the students will have to develop the characters they will play during the game and also they will have to put a presentation together so as to introduce their nation to the rest of the class.

I was pleased with the character descriptions the students came up with. This might be because this was where I put most of my effort while coaching the teams. Although most of the character sheets were good, covering a good background about political affiliation, how one might rise to power in that nation, and the general character history, was also generally good. However, many of them had a very weak personal or political agenda. This problem might come from the fact that the students really did not know what they were supposed to do during the game. I believe that this problem is evident pervasively in all the teams, no one really knowing what the game was about as a common (or delegation) objective.

Considering that the class started talking about the game in the first week of classes, this might result a little surprising, as considerable time passed before they are “delegates” trying to serve their nation well. I think the problem here was that the information we gave the students about the game assumed some information they really did not have. Briefing papers including more background and official directives, and details about where the game will take place, which characters they have to represent, and so on are necessary. The problem is that not every student knows what a LRP is, and the few that know how to play one do not know what the group goal is, much less the educational objective. Hence, one can get off to a slow start, before they start to “get it.”

They can take a name and a position and embellish it, but half the class needs more structure to find a place to start engaging their role and debating each other.

In general, the teams did a decent job representing their delegations. However, in the individual character sheets (and especially in the country presentations) many teams still went for the high school like presentation. This means they basically copied the country's geographic and political description from an encyclopedia, which is not the point of a culture authority structure and stratification system presentation. These teams frequently came with too much numeric data, and too little information on what the economy and political structure of the country actually is. Thus, most of what they say is useless for the rest of the teams who need to know if they are friends with the current government or linked economically. The idea is to show a general perspective of your country, trying to show your country's social structure, cultural beliefs and general population tendencies. Knowing how many seats the House of Representatives has in a certain country or how many submarines a certain nation has, do not help much.

Most of the teams lacked a clear agenda for the team. I think the lack of specific directions underlines a similar problem seen in the individual character sheets. There, however, models of what a good character sheet would cover were distributed. There was no model for a good report on a country, but there could be a list of basic points and issues they are expected to cover.

As a general comment about this part of the class, I think the game is a lot of work to do for the proportion in the grade the students receive for it. To do a decent job on the game the students have to do a fairly intensive research, and some countries are especially hard to find current economic, politics or current events news that is not a

purely western interpretation of the situation. Unfortunately the students do not have access to some media in the original language, or translated into English.

The students that decide to do a term paper game may actually have less to do than those choosing the game. After doing some research they meet with the coach for three occasions, they have to develop an original character with a history of rising through the stratification system of their country, prepare team presentations, play the game for two days, and report on their experience in diary form as their characters. This is outrageously more work than the term paper option that some students take to write a ten to twelve page paper on their country. The inequity in credit devoted to the amount of work expected of a good role player needs to be redressed. The game should be as important as the midterm plus final exams combined.

I have come up with some improvements we can try in future versions of the game. The first and most important is that we have to develop a an improved description of the game, not only in background around what the game represent but also around the background research real actions and interactions in negotiations that we expect from the students. We have to spell out the roles and weave them into the game with different and explicit jobs.

The first time I played the game, we did it in a fairly large class, were there was a clear center in the room and where we had space to separate into groups when needed. This is important because the wrong room will not motivate the student into their roles.

A possible option to help the students to get into the game could be to have them start discussing in the class the very same question and debate that they would play in the evening session talking their country's position. If we have the Professor's introduction

during this period, the students will have a start up, so the evenings of the game would be used better. As a consequence of this, when the students break up in different groups for the first time they do not really know what to do, or how to act. Some “light” training and a strong introduction in the previous class will make things go much smoother and better in general.

When the students break up in teams, I noticed that some roles are not present in some teams. I think the roles should be assigned with some priorities: there must be a diplomat present. Then the next priority is the government bureaucrat or an economist, then scientist, or military consultant. This would match most of the teams. In case of religious countries, the diplomat head of the delegation probably should have some relationship with the religious institution that governs his country. In case of using a military person, I think that a national security advisor would make more sense in a Europe Middle East negotiation than a General.

As a last comment, I think that the European delegations should realize that they are in this conference to actually find ways to help the Middle East. During the entire game the European teams played for self-interest and were really tough on the Middle Eastern delegations. They somehow forgot that the point of the game is actually to help the poorer countries for mutual peace and prosperity. They negotiated so aggressively that they really did not allow any space for the Middle Eastern countries to talk back, because they controlled the purse strings. That prompted the Middle Eastern nations to close ranks in a way that seemed unrealistic. Iran is not going to emerge as the leader of this block of nations even after a rebuff by clumsy European diplomats. Turkey, trying

so hard to actually join the EU, and rehabbed, might emerge at the header of a competing economic nation.

4. Analysis of the second Class

STS 221X “The Global Inequality Debate” is a course in which the main focus was to analyze the inequality of wealth and power in the different continents. The core of the class was Jared Diamond’s “*Guns, Germs, and Steel: the Fates of Human Societies*” that discusses the different reasons for actual inequality. As we have seen in the literature review, this book is very controversial because of the means and metrics Diamond used to support his thesis. This book is not only used to illustrate some of the possible reasons for the current imbalance of wealth in the different continents, but also used as an exercise of critical thinking. Diamond wants to explain the inequality issue in terms of geography, technological diffusion, and biology/disease vectors, mostly operating in the pre-modern era, what others have explained as a consequence of cultural factors such as the Colonial Period or the Protestant Reformation.

Although Diamond’s book was considered the core of the class, only half of the students actually read it. The rest of the students were trying to make sense of a really controversial book “*1421 The Year China Discovered America*” by Menzies. The “experimental” part of this class was to have only half of the class reading one of the books, and then study how much information the other half could get through a common paper and a few oral presentations.

In my opinion, this approach of dividing the class in halves created some problems. I think that the half that reads Diamond’s book is better prepared to understand the big global inequality picture. I also think that Menzies’ book is a great option when trying to organize a critical thinking exercise. However, I think that the culture and political factor would argument be better introduced by other sources.

In deed, the book by Jack Weatherford on *Genghis Kahn and the making of the modern world* would have served as well, and not been so easy to dismiss, due to controversy among professional historians.

Even better might be Kelly's "Gunpowder, Alchemy, Bombards, and Pyrotechnics" The history of the Explosive that changed the World," this would introduce a clear example of a non-subsistence technology describing how it shaped the world since its introduction in Europe in the 14th century. Since the book covers a topic that confronts Diamond's theory directly it is a better fit than maritime technology to critique his thesis. Analyzing how gunpowder got developed in Europe, and the comparison in development with the Middle Eastern empires of the time introduces some interesting questions about why it did not get developed as much in some areas when they had the technology available even before. This book would be too much work to ask of the students to do. Therefore I suggest having them study a good review of it, and probably have them answering a set of questions about the influence of gunpowder in Europe as a non-subsistence technology, is not something you could do reading only Diamond's book.

Another book that could be a great acquisition for this class is "*1491: New Revelations of the Americas before Columbus*" by Charles C. Mann. *1491* is not so much the story of a year, as of what that year stands for: the long-debated (and often-dismissed) question of what human civilization in the Americas was like before the Europeans crashed the party. This book would represent a great complement to "Guns, Germs, and Steel," analyzing the early interaction between a few European nations that are well documented and we all know about with the not-so-well-known Americas of 1491. I

think this book should substitute Menzies' book as second reading for the class. The only problem that I see is that both Diamond's and *1491* are fairly extensive. We should probably come up with a division of chapters for the second book that still lets the class understand the big picture.

Then each group gets an outline, study guide and review on the book they did not finish, but read the core of, from the other team. To finish the job they each answer a set of questions about the book they did not read – to be read by the team they presented – and they fill any remaining gaps as the “grade” them. One person is grader and coach for a person on the other team, and they reverse role for the other book. Although promising, this idea still needs some development.

The final part of the class is where each of the students read and presents to the rest of the class a small story about a certain society in a specific continent. Most of the stories are privileged insights of some tribes in different parts of the world. Although I found this part of the class very interesting, I think that at this point the class is not really focusing on the inequality debate any more. It was the professor trying to teach about cultural differences with examples from every continent. The course sort of outgrew this because better materials to make the case about culture being important had been found. They should move to another course on criticism of the modern world by pre-modern peoples in the world today.

5. Conclusions

The whole language that others have used to describe the things like the Spanish Conquest of Central and South America is missing. Yet Diamond's topic is the distribution of wealth and power by continent, and he even stresses the Inca example, while downplaying the conquest of Mexico and the Mayas.

In short, what Diamond wants to explain in terms of geography, technological diffusion, and biology/disease vectors, mostly operating in the pre-modern era, what others have explained as the result of European Colonial policies after contact around 1500s; i.e., the last 500 years - a relatively well documented period, with a clear historical record. Diamond does not deal with current neo-mercantile policies that have sustained the colonial relationships after independence. Even the resulting social structures that are the legacy of their period such as primate capital cities and extreme concentration of wealth and power in the hands of a few people and the export economy emphasizing agriculture, mining and extraction of raw materials to be traded for manufacturing in Europe or North America.

On its face, he is naïve, so why is his account of “ultimate” rather than “proximate” causes of global inequality so enlightening? How can one present it to students already inclined toward “technological” determinism without it further blinding them to cultural and social variables? What part of the ménage should be preserved, what challenged and what should they see and think about first, before being exposed to this radical theory? One wants the effect to enlarge their thinking and understanding rather than reinforce their bias to discount history and culture while stressing physical science in explaining the world.

As luck would have it, I (and several other classmates) hit Diamond and this experimental course in which he was featured after studying the last five hundred years pretty in depth in the Introduction to Sociology and Cultural Diversity course focusing on the modernization of Europe and its shift in relative wealth and power vis a vis the Middle East (Ottoman Empire) all in the last 500 years. When I read Diamond there was a obvious tension set up – cognitive dissonance – which made me cautious even though I was intrigued. Clearly, this guy was onto some climate, geography and biology factors everyone else had not considered that were operating in the background. What I already knew was not the whole story. On the other hand, this was not the entire story either. I would have to integrate the two somehow myself and come to my own composite understanding without much help.

While I was trying to do this, some of my classmates, who had not taken the previous class, are reacting to Diamond – and I have to write a paper with them – and they are not seeing some of the problems I have with his thesis.

At the same time across the room, another group is trying to make sense of a really controversial book “*1421 The Year China Discovered America*”, which also focused on the last 500 years, although this time from a Chinese rather than a European perspective. The bottom line there is that the clear technology leader country does not prevail, and all the reasons are political and cultural – factors that Diamond does not consider in “Guns, Germs, and Steel.” Indeed, it raises questions about whether we even know what the history of the last 500 years is - as he is trying to revise everything.

The result is a moment that is uncomfortable, you are unlearning and questioning and much as you are learning and adopting ideas, but you sense that you are doing something important; it does matter what you conclude.

In short, these two courses together represent a great critical thinking educational opportunity. That goes far beyond being “exposed” to a bit of the history of most of the continents in the world, integrating at the same time thoughts that relate to the current level of inequality. These are not social problem courses; these are what we could call “intellectual history” – a struggle to make sense of what led to our current unequal circumstances.

In conclusion, this set of classes represents a great chance for some real deeply reflexive education and critical thinking. Bernard Lewis was just a warm-up for real revisionary thinking. The lack of World History knowledge by a standard American student makes these classes a great opportunity to catch up with it, meanwhile one is experiencing critical thinking exercises new to most of them, that will set the stage for their later integrative learning in overseas project centers

6. Appendix A: Character Sheets for the RLPG

6.1. *Keith Collard: British Character – Military/Security Delegate*

Keith Collard grew up on the outskirts of London, England. Martin Collard, Keith's father, used to be a respected lawyer. Martin always expected Keith to study law and join his firm, but although the junior Collard always showed an interest in what his father did, he never followed his father's footsteps. As a teenager, he was increasingly disturbed to hear of the tragic outcomes of wars in Afghanistan, Vietnam, and, though less publicized, the tragic eight year Middle East conflict between Iraq and Iran. Tales from the ongoing Palestinian, Israeli conflict among others, led him to start his career in National Security. His father constantly tried to convince him of how important to be a lawyer was, and how useful for the rest of the world it would be. Keith was never convinced that anything was more important than fostering peace and maintaining security. For him the key was surveillance and information gathering and assembly for interpretation.

When he was 18 years old he started his studies in Electrical and Computer engineering at Coventry University. After his freshmen year he managed to transfer to Cambridge University. He always suspected his influential father had something to do with his admission. Once he graduated he started working as an engineer for the Royal Air Force and was assign to developing radar and ballistic systems. However, during his time in the RAF he obtained specific training on electronic eavesdropping, target acquisition, and defensive countermeasure systems. This was something he could see the relevance of to a new generation of intelligence expert. After working for twelve years for the RAF at the age of 33, he joined a very special engineering department at Scotland

Yard. His job at Scotland Yard was not as an engineer. Instead, he held the position of Security Advisor. One of his main duties was to study the military technologies acquired by other countries that could possibly be used by terrorists with mass destruction intentions and give advice on the development of detection and countermeasures for such weapons.

His extensive experience in all sorts of weapons and national security matters helped him to move up in the Bureaucracy. He then held a chair on the Executive Committee of the International Atomic Energy Agency from 1982-1990, which was then headed by Hans Blix. After working for eight years as a weapons inspector, surveying suspect nuclear sites around the globe, Collard began working for the office of Prime Minister Tony Blair. Many were surprised with this appointment because of Collard's lack of political experience; but his reputation for expertise in military issues made it possible. He also thought his father had something to do with his coming to official notice, at a time when his credentials were advantageous. In 2000 Collard was appointed lead diplomat to the Middle East, overseeing "information gathering" for all the diplomatic missions to the region that were supposed to be assessing local military and paramilitary capabilities.

Collard has headed weapon inspection delegations involved in delicate negotiations with Middle Eastern countries before, and has stated that he expects the Middle Eastern participants in the talks to be a "tough" crowd. Ongoing military actions primarily executed by the United States and the United Kingdom leave many Middle Eastern leaders suspicious of the UK's motives at this conference. Collard recently went to Iran as part of one of the IAEA teams that inspected the Iranians Nuclear fuel

enrichment facilities. Because the conclusion of these inspections was to cast suspicion on whether their purpose was more sinister than the official statements, he was viewed as the “unfriendly” voice at the background of that report. Stressing their position that only the peaceful application of nuclear power is state policy, an unfriendly attitude is expected by Britain from Iran as well as Iran’s allies (such as Syria) on this matter. Actually, that inspection team used tips from Iranian dissidents to find evidence that Iran probably had a nuclear weapons program and that its leaders had lied about it for some time. Keith’s view was in line with the majority on the report conclusions, but not wanting to compromise his sources, the IAEA, implied that MI6 – (British Military Intelligence) had provided them with key information when pressed by Iran to “prove” or at least substantiate these allegations.

6.2. *Diana Bracco – Italian Scientist*

As President and CEO of the Bracco Group, I am committed to the growth of my company. The Group, which my family started in 1927, is an integrated Healthcare Group and a world leader in global solutions for the diagnostic imaging field.” I have managed the Group since 1977, and in 1999, I became CEO and President. There are three major branches of the Bracco Group including Bracco Imaging in Italy, the Group company that manufactures fine chemicals for exportation; the group new product Research Center in Geneva; and Bracco Diagnostics Inc in Princeton, New Jersey, USA. The United States is the Bracco Group’s largest market for chemicals used in medical diagnostics. The Bracco Group also has other international joint ventures including

Bracco International for the Japanese market as well as Altana Pharma for Central Europe. I have attached my resume for more background information.

My public image is that of compassion for the community and dedication to research. I brought the Bracco Group to the top of Italian Rankings in the field of ethics. However, that is image management. In reality I am more concerned with the market and my shares of the company. I plan on pitching the Bracco Group whenever I can. I hope to obtain free advertisement which could lead to more joint ventures with other European Countries. More importantly, I hope to open a whole new market within the Middle East. I understand that the leadership there is not as accepting of technology as in “modernized” nation, but I will convince them that technology has opened the doors for many to get good paying jobs. I do not like to see Italian specialists leave Italy and work for other companies, and I assume that the Middle East has the same concerns about “brain drain.” The Middle East has many brilliant minds, minds that I would like to be working for me.

I will suggest a parent company that will be a mentor for their affiliated subsidiary to follow. I will explain that the Bracco Group will only own 25% of its Middle East protégé. The Bracco Group will "eventually hand over" the rest of the company to “private” Middle Eastern investors. In actuality, we will be retaining indirect control while getting back our initial investment money to move into new ventures in the region.

My prime target is Saudi Arabia, one of the wealthiest Middle Eastern Countries. Their elite has the money to support a research and development facility as well as send their students abroad for education. A joint venture with the Bracco Group will not only open doors to new jobs and a better economy (I received the Cavaliere del Lavoro award

“Italy’s most prestigious award made in recognition of those who have made a particularly important contribution to the country's economic development”), but I will be able to get shares in a market that has not been developed yet. The Bracco Group could be the leading (and only) Biomedical Research and Development Company in the Middle East, outside of a few government laboratories, mostly in Turkey and Egypt.

In 1985 the Bracco Group started a new line of investigation consisting of low cost vaccines. After twenty years of development Bracco Group successfully produced these low cost vaccines, the main buyers of which are NGOs and Governments managing other humanitarian programs. I have been invited to this conference as a technical expert in health care and medical resource development, especially low cost development of preventive medicines I will be serving as advisor for my delegation in biomedical industry issues too.

My ally at this conference will most definitely be Germany. The Bracco Group already has a joint venture with Germany's Altana Pharma (I own 51% of the company), which has proven to be a long and fruitful collaboration. Our products have been exclusively produced for other European countries including France, Holland, Belgium, Luxembourg, the Czech and Slovak Republics and Poland. Unfortunately, I feel as though the United Kingdom may pose a threat to my expansion and market penetration plans as they too have influential pharmaceutical companies. Allies within my team include Marcello Spatafora and Silvio Berlusconi as both have close ties with the President of Italy, who greatly appreciates and respects the work that the Bracco Group has done for Italy. I know that the official government focus at the moment is to slow down illegal immigration from desperately poor north Africa, especially Algeria. The

boats arrive daily in southern Italy and specially Sicily. I have told him that we need to move some of the jobs over there. He is open to the idea and it will be a matter of discussion during the conference. Now is time to displace the French and British Neocolonial power by peaceful means via economic alliance. This should be done one industry at a time starting with health and medicine. This is our specialty and we can try to get the Germans to help, but stay in the background this time.

6.3. Jose Cobo Fernandez - Bureaucrat-Diplomat for the Spanish delegation

Jose Cobo Fernandez was born in Burgos in 1954, a small province of Old Castile. Like everybody else during the Franco's dictatorship, Jose was raised in a strictly catholic environment. However, his father Fernando fought as a soldier in the Republican¹ side in Spanish Civil War from 1936 to 1939. Burgos as well as many other provinces in Castile were known as very conservative. After the war, because of his family's liberal political leanings and his father's participation in the losing Republican cause, they decided to move to the north of Spain. One of the provinces of the Spanish's north is Asturias. When he was eighteen years old his family moved to Oviedo, the capital of Asturias to start his studies of law at the local university. Asturias' main industry used to be metallurgy and mining, as is common in the north of the country. At the age of 25 years, two years after fascist dictator General Francisco Franco died; he graduated at Law by the University of Oviedo. It took him an extra year to graduate

¹ The Republicans in Spain are the liberal side. The name is due to the fact that Spain was, and still is, a monarchy that the republicans do not want.

because when Franco died the law in Spain changed quite a bit, so law students had to learn new laws and regulations, such the new constitution (which was ratified in 1978).

Because he was always quite active in political issues during the time he spent in school, it was not hard for him to find contacts to enter the Communist Party when it was re-legalized during the democratic transition of the country. In 1982 the Partido Socialista Obrero Espanol (PSOE-Socialist Workers Party) won the national elections. In 1986 the Communist Party got dissolved and formed the Left United, which was a combination of several different liberal parties. When the Communist Party got dissolved, it was moving towards the extreme left wing policies, a fact that Jose did not like at all. He joined the Socialist Party in 1988. In 1990 he ran for city mayor of the city of Burgos. He did not win, but did so well that he became stronger in the Party, better known and more popular in the region.

In 1996 the conservative Popular Party won the national elections and held the power until March, 14 of 2004, when two, days after the terrorist attacks on the Madrid subways, the Socialist Party won the elections again. Because of Jose's experience and knowledge of the party, he started working as a member in the Foreign Affairs Ministry, with Mr. Moratinos, the current Minister of Foreign Affairs. Not even a year ago he was offered an opportunity to move to Strasburg to work in the Spanish embassy for the European Union. It is an important job since Spain currently gets substantial subsidies from the EU, and wants to keep getting them until it is the economic equal of France and Germany.

The approval of the entrance to the European Union by countries such as Poland, Romania or Bulgaria could be a problem for Spain. These new members would obtain an

important part of the “cohesion” funds now going to Spain. These funds are an important part of the Spanish economy right now, and gaining Germany’s or France’s support on slowing down the expansion of the EU is essential for Spain. The expansion of the EU is something about which Spain wants to see go slowly and be careful.

Although Spain does not have a direct relationship with Middle Eastern countries such as Turkey or Iran, it has a historical experience with North African countries like Morocco due to its proximity, and Western Sahara was a colony, so their knowledge of Islamic culture will be helpful once the negotiations start. Indeed, still on the modern era, most of the Iberian Peninsula was once ruled by Islamic peoples from north Africa.

Further expansion of the EU with nations poorer than Spain being added means less subsidy to Spain. Theoretically, Spain wants to see the EU grow but not right now, and will not support a nation for admission that will not provide economic opportunities for Spain as large as the subsidy that might be given to them, at the Spain’s expense. Turkey has a tough case to try to get Spain’s vote for admission to the EU, though a smaller Islamic nation like Kosovo it might treat generously to make the point that the EU is not just a Christian Nation Club.

6.4. Francois Rousseau - Economics and Finance Specialist Diplomat

As a boy, I grew up in the small town of St. Martin de Bromes in the southeast corner of France. I was born into a relatively small family, and was an only child. Early on I helped Ma mere, Sophie, with the tax bills and took an interest in economics. During my high school years I had the opportunity to meet with Jean-Pierre Fourcade, Minister of Economy and Finance, who had come to speak to my school, about the

current economic status of this agricultural region. I often dreamed of going to Paris and becoming the next finance minister. However, my parents could never afford to send me to a Grand Ecoles de Commerce.

My dreams of becoming a national leader seemingly came to halt with the realization that my family would never be able to support me at college. Ma Mere worked at a small bistro and earned next to minimum wage. Mon Pere worked for a small automobile company and after being caught embezzling money was sent to prison for two years. I learned early how to care for the family and took up a job at the Bourse de Paris (the Paris Stock Exchange). After earning some substantial money (due to a shrewd investment in Lebanese and Saudi Arabian companies), I was able to apply to a Grand Ecole de Commerce and continue my education, but knew could never hope to rise beyond a middle level Bureaucratic post due to the scandal associated with my surname.

After the exposing of my fathers crimes, I knew I could never realize my dreams of becoming the Minister of Economy and Finance since my reputation was now tainted by association. I settled for a lesser job, as advisor and France's representative to the finance Committee of the United Nations General Assembly. Often my dreams continued to haunt me and I suffered severe bouts of jealousy and rage as others in my graduating class surpassed me in The Ministry. I felt that I could have risen higher in the Ministry, but thanks to Mon pere, I'd never gotten a chance. I was sent to this conference as a economics advisor for the French delegation as substitute for Jacques Breton, Jacques is actually responsible for balancing the budget of the EU, and had better things to do than come talk about spending Francs to help the Middle East develop.

I am known to be strongly opposed to the policy of dirigisme (state control of economic and social affairs). Thus, I believe that European nations can help reduce their budget deficits by dissuading government intervention and pressing privatization. I have used most of my limited bureaucratic power to push this policy at the UN and at home. I am thus a strong supporter of the Middle Eastern countries private sector development. I believe we must help our developing friends recover from the production slump they are in even if it means the state must “prime” the private pump a bit to get economy growth going that is not tied to the pumping of oil by state own companies.

I have friends in Algeria whose fate is a matter of special interest to me as my wife’s family comes from there, although we met in Bordeaux. We invested in a business her family started and it is growing slowly but steadily, so I am popular with her people – who are well connected. My advice is taken very seriously in official circles there. I am strongly against French schools refusing to allow Muslim people to wear their veil, and often show disgust with certain stereotypes of people from Middle Eastern countries common in France. I will not hesitate to help friendly Middle Eastern nations in time of need regardless of whether they have natural resources such as oil or natural gas to trade with France. Indeed, I want to help primarily those that **do not have** oil money to invest in their own future, as they provide governments that are more democratic. A government that does not depend on tax dollar from its own people to raise revenue is a dangerous thing. We need to work with the rest to develop a model of what a free, prosperous, and modern Islamic nation would look like.