Global effects of the Military Revolution in the New World?

A study of military innovation and Spanish warfare in the sixteenth century.

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Introduction

> 'War itself seemed necessary. In modern functional terms, it was the inevitable product of an international system that lacked a hegemonic power. To contemporaries, it was natural, as the best means by which to defend interests and achieve goals. The idea that such objectives might be better achieved through diplomacy enjoyed little purchase in a society that took conflict for granted.'[1]

> 'With as many kingdoms as have been linked to this crown', Philip IV stated in 1626, 'it is impossible to be without war in some area, either to defend what we have acquired, or to repulse my enemies.''[2]

Spanish conquest in the New World was traditionally set in a historiography that attributed the success of the European invaders to several factors, the most important being their military superiority in the form of cold steel, fast horses and lethal bullets. Combined with their religious, racial and moral characteristics, they could easily overrun indigenous enemies, who faced a much better organized military force and were smitten with diseases and crippling superstitions. Even their greatly superior numbers did not help the mighty Aztec[3] empire, which fell in 1521 after a two-year war with Hernán Cortés and his *conquistadores*. Many more Indian civilizations were to follow.

Since the second half of the twentieth century, the racial and religious factors are swept off the table by serious research. The European success in the New World starting in the late fifteenth century is regularly attributed to military superiority. There is a parallel with military research of the same period, because many historians see the early modern period as one of military innovation, or even military revolution. But, although there is a similarity between both fields of interest, they traditionally worked beside each other. Historians who researched early modern military warfare focussed mostly on Europe and were readily prepared to export their findings outside the continent. In other words, the success of Cortés and other Europeans in the New World was attributed to the superior military innovations of the sixteenth century. This thesis will test these assumptions of European technological superiority, or military innovation, by comparing the conquest of New Spain and New Granada in the first half of the sixteenth century with the writings of a Spanish soldier, Captain Bernardo de Vargas Machuca, based on his experiences policing Indians in New Granada from 1578 until 1595, roughly fifty years after the two conquests. The concept of an early modern military revolution is a very useful starting point for this kind of military research.

In 1955 Michael Robert held his inaugural lecture where he presented the idea of an early modern military revolution. '*It stands like a great divide separating mediaeval society from the modern world*.'[4] From the moment of the inception of

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[1] Jeremy Black, *European Warfare in a global context 1660-1815* (London 2007), 170.
[2] Henry Kamen, 'Vicissitudes of a World Power, 1500-1700' in: Raymond Carr, *Spain* (Oxford 2000), 156.
[3] The term Aztec is used to describe the political "state" or empire of this particular, Nahuatl speaking, Mexica tribe.
[4] Michael Roberts, 'The Military Revolution 1550-1660 in: *The Military Revolution Debate. Readings on the Military Transformation of Early Modern Europe*, C.J. Rogers, ed. (Oxford 1995) 13-37, 13.

the concept of the military revolution by Roberts, there has been an extensive, active and on-going debate about the validity of the concept, and, to what extent it can be applied to various conflicts, each in its own geographical space and time. Roberts put forward the idea that '*in terms of the size of armies, tactics and strategy, finance and logistics, there was a decisive leap forward made during the seventeenth century*'.[5] Tactical developments influenced strategy, which in a revolutionary way changed war, so argued Roberts. According to him, the military revolution happened during the years 1560-1660 with key roles for the developments of the Dutch Revolt and Thirty Years War. Apart from tactical change that came from the introduction of firepower, he discerned three other key elements.[6] Armies grew in size, which led to more complex strategies and had a greater impact on society than their medieval predecessors. Not only the inhabitants of war torn areas suffered more than before from the hands of soldiers, rulers were also confronted with the notion that bigger armies had an even bigger financial impact on their lands. '*By 1660 the modern art of war had come to birth. Mass armies, strict discipline, the control of the state, the submergence of the individual, had already arrived: the conjoint ascendancy of financial power and applied science was already established in all its malignity; the use of propaganda, psychological warfare, and terrorism as military weapons were already familiar to theorists, as well as commanders in the field*.'[7]

Since Roberts presented his theory in the fifties, quite some historians have researched the subject. The article published in 1956 that contained his lecture found a broad audience among both early modern as well as military historians. Not all of them agreed completely with his theory though.

Geoffrey Parker adopted a slightly different approach than Roberts. According to Parker, the use of gunpowder in Europe led to revolutionary changes on two levels. First, it drastically changed siege warfare. Since the Middle Ages, high walls were the most common and effective way to defend a fortification against attackers. With the introduction of siege artillery, those high walls were perfect targets for the cumbersome weapons of doom. So military architects set out to improve fortifications to regain the upper hand in sieges. This led to a new way of defence, the so-called *trace italienne*, made up of low walls and angled bastions outside the original wall, to cover the blind spots. The improvements in fortification also meant that the besiegers needed an even greater army to successfully end the siege, which fit Roberts' original theory of the early modern military revolution.

Apart from sieges, the introduction of gunpowder also transformed infantry. It took a while for handheld weaponry to usurp the position of the longbow, because the rate of fire and the range of a firearm were not as impressive as that of a bow. But the havoc a soldier could wreak with a gun without the years of training required for him to do the same amount of damage as a bowman, proved to be decisive. It turned out that with the right amount of drill, the onslaught could be even greater, as proved in the late sixteenth century by the military reforms by Maurice of Orange in the Dutch Republic in the 1590s

[5] Michael Prestwich, *Armies and Warfare in the Middle Ages – The English Experience* (Yale 2006), 334.
[6] G. Parker, *The Military Revolution: military innovation and the rise of the West 1500-1800* (Cambridge 1988), 1.
[7] Roberts, 'The Military Revolution in: *The Military Revolution Debate,* 29.

and Gustavus Adolphus in Sweden in the early seventeenth century. 'The musket became '*queen of the battlefield' for over two centuries*.'[8]

According to Parker, wars were won by attrition, by slowly eroding the enemy's power. '*The classic conflicts of the age of military revolution were all 'long wars' made up of numerous separate campaigns and actions*'.[9] He also notes that although the main objective usually seemed to capture the opponent's strongholds or to defeat his army in an open battle, *der kleine Krieg* continued to have strategic weight to the outcome of war. Guerrilla warfare continued to be a staple of warfare in early modern times.

The impact of Parker's adjustments to the concept of the military revolution was even greater than the work of Roberts. His theory spawned a lot of criticism. He addressed some of his critics by adding a new afterword in the later printings of *The Military Revolution*. He was criticised by historians such as Jeremy Black, David Parrott and Clifford Rogers with arguments such as that a process, which lasts more than a hundred years, can hardly be called a revolution. Parker's chosen period lasted from 1500 to 1800. He starts earlier than Roberts because of his inclusion of warfare in Renaissance Italy in the late fifteenth century, which shows characteristics of Roberts' theory of the military revolution. He is also attacked on the credibility of a revolution itself, '*rather than thinking in terms of one pattern of military development that spread more or less effectively across Europe (…) it is more helpful to think of multi-centred developments*.'[10] His underestimation of the role of the Ottoman Empire also contradicts his focus on the struggle between European and non-European powers. Also, Parker was criticized for focussing too much on technological developments and the geographical spread of the military revolution. If the introduction of gunpowder caused a revolution, why did it not happen earlier when it was discovered in China? So maybe instead of a military revolution, the developments should be viewed as just another stage in the on-going process of military innovation? According to his critics, Parker gave the impression of technological determinism, of technology in the role of agency, while it should not be seen as a driving force behind progress.[11] But despite all the criticism, Parker's work concerning the early modern military revolution is still seen as ground breaking.

Historians who address Parkers concept of one military revolution spanning over several hundred years have come up with different approaches to solve this problem. An important development is the notion that maybe there isn't one big comprehensive military revolution but a couple of smaller ones, each taking place in a different time. Rogers has come up with a punctuated equilibrium model, in which he sees military innovations progress very quickly over short periods of time followed by a time of stagnation.[12] This theory is not a definite departure from Parker's work, because although he has chosen a particularly long period for the early modern military revolution to take place, he does see certain periods as more important than others.

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[8] Parker, *The Military Revolution*, 24.
[9] Ibid, 41.
[10] Jeremy Black, *European Warfare 1494 - 1660* (London 2002), 1.
[11] Black, *European Warfare*, 3.
[12] Clifford J. Rogers, 'The Military Revolutions of the Hundred Years' War' in: *The Military Revolution Debate* 55-94, 76-77.

Apart from all the criticism Parker received for *The Military Revolution: military innovation and the rise of the West 1500-1800*, there is one important element that he introduced to the debate of the military revolution. The added title *rise of the West* already displays the fact that Parker went beyond the Eurocentric approach to the topic that most historians writing about the subject hold so dearly. His work took on a global outlook on the subject. Parker studied the effects of the revolution on warfare against the native peoples of the Americas, Siberia, Southeast Asia, Sub-Saharan Africa, India, China and Japan. His goal was to show 'how the West, so small and so deficient in natural resources in 1500, had by 1800 come to control over one third of the world'[13] Could the use of firearms really be so influential in the hegemony of the West? He does note that there usually are several other factors, besides military superiority, such as cultural characteristics or institutions, at work as well, but sadly does not go into detailed examinations.

The fact that Parkers ideas hold merit can be found in several publications about European early modern warfare that also deal with the global aspect. Aforementioned criticaster of Parker, Jeremy Black, recently published his second book dealing with the global impact of warfare. In *European Warfare in a Global Context 1660-1815*[14] Black takes on a somewhat different approach than Parker. In his book, he keeps to his critical position towards the concept of the military revolution and the teleological focus on technological aspects of warfare. '*Dethroning technology from the central position in the narrative and explanation of military capability, does not, however, entail denying its importance*.'[15]

In *European Warfare 1494-1660,* Black introduces the term 'strategic culture' to describe strategic assumptions made at certain times, which were believed to best counter or solve the problems of a particular moment in war. He continues to use this concept in his *Warfare in a Global Context.* Instead of using a triumphalist 'big bang theory' like the military revolution, Black sees a much more complex scheme '*that incremental change poses its own problems of assessing best practice, as well as difficulties of determining whether it was appropriate to introduce new methods*.'[16] So, it would be wrong to conclude that the only reason the Western troops easily defeated combatants who didn't fought according to the Western style (use of muskets after extensive drill and disciplinary training) was their revolutionary method of warfare. That this was viewed as best practice on certain European battlegrounds does not constitute a norm for every early modern battleground; there are huge differences in conflicts outside the Western world.[17] Apart from this, there is the fact that the West did not claim victory every time they entered combat with indigenous

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[13] Parker, *The Military Revolution*, blurb on the back cover.
[14] Jeremy Black, *European Warfare in a global context*.
[15] Black, *European Warfare in a global context,* 31.
[16] Ibid, 3.
[17] 'Instead, it is worth noting that, in Europe and elsewhere, the armies of this period were mixed infantry/cavalry forces and for both infantry and cavalry, involved troops that used firearms and those who did not. Thus, the response to gunpowder weaponry varied, and this variety has to be understood not in terms of military progress, or administrative sophistication or cultural superiority, but rather as a response to the different tasks and possibilities facing the armies of the period, within a context in which it was far from clear which weaponry, force structure, tactics or operational method were better.' Black, *European Warfare*, 207.

troops using another fighting style, we only need to look at the position of the Ottoman Empire as a confirmation of this.

The use of strategic culture as a research method leads to a very diverse picture of Western warfare - especially when conflicts outside the Western world are also studied – which according to Black, is much more realistic. He does give Parker credit for the Western hegemony theory put forth in *The Military Revolution: military innovation and the rise of the West 1500-1800* although he maintains a critical standpoint. However, according to Black, naval power and the resulting capacity for the West to put their soldiers to work overseas is the only subject that justifies Parkers view of Western exceptionalism.

The not yet fully developed global aspect of the military revolution leads me back from the theoretical discussion to my research subject, namely the comparison between both the conquests[18] of New Spain and New Granada in the first half of the sixteenth century and the experiences of Vargas Machuca in the late sixteenth century. By doing so, I hope to ascertain the global effect of the military revolution. With both the discussion about an early modern military revolution and the work of Parker and Black concerning non-European conflicts in the back of my head, the conventional view of the Spanish superiority, their steel, horses and firearms, in their conquest in America immediately comes to mind.

Is the concept of an early modern military revolution legitimate when researched in Latin America, instead of Europe? To what extent were European innovations exported and used in colonial conquests? According to Parker, the military revolution led to supremacy or dominance of the West over the rest of the world. This matches the Spanish conquest of Latin America, the so-called *conquistador*-myth: '*the notion that Spaniards displaced incumbent elites in the early modern New World because they were in some sense better, or better equipped, technically, morally or intellectually'.*[19] Did the Spanish troops actually win because of technological military innovations attributed to the early modern military revolution? This question has already become much more complex if one looks beyond agency of technology. What was the effect of the Spanish choosing sides in local conflicts, or forging alliances with the Indians for instance?[20]

Working with a concept like the military revolution holds many advantages while at the same time does not offer a clear-cut theoretical model in which assessing military innovation in the early modern period becomes easier. However, none of the aforementioned historians contest military innovation in itself. They see innovations in different periods of time and whether they see them already starting in medieval times or not, or if they see several innovations

[18] Some authors distance themselves from the term conquest, i.e. see Henry Kamen, *Empire, How Spain became a World Power 1492 -1763* (New York 2003), 95-96. In a way, parts of the Americas were 'rightful' property of the Spanish crown because of the papal bulls dividing the soon to be discovered continent between Spain and Portugal. But more importantly, the term conquest implies completion. The sixteenth century European states could not claim full control over their colonies. I believe the term can still be of use, as long as this is held accounted for. Even king Philip refrained from using the term the term and indicated the developments in the New World in his 1573 statues of conquest as *pacification*.

[19] Felipe Fernandez-Armesto, ''Aztec' auguries and memories of the conquest of Mexico' in: *Renaissance Studies* vol. 6 no. 3-4 287-305, 289.

[20] 'More generally, in European expansion, the political context played a major role in guiding commitment, affecting the dynamics of obtaining and sustaining alliances, and determining success.' Black, *European Warfare*, 67.

all connected with each other or not: in the end, none of them reject early modern military innovation. That's why I want to discuss military development without directly connecting it with the concept of the military revolution put forward by Robert and Parker. I even go beyond Black who at the one hand criticizes the concept, but on the other still uses it as conceptual framework.[21] The key components of the concept discerned by either Roberts or Parker, like the introduction of gunpowder, are just as valuable without their connection to the overarching revolutionary aspect. 'Strategic culture' as proposed by Jeremy Black, can be equally helpful in determining the values of military innovation.

The five aspects of warfare I plan to deal with are the following: the use of firearms, horses, infantry tactics, steel and ships. The first four, especially firearms, are commonly seen as causes for the Spanish supremacy, while naval experiences come from a relatively new theory.[22] Only infantry and firearms are directly tied with the concept of military revolution, the other three are not. Main pillars of the revolution proposed by Roberts and Parker such as siege warfare or the growth of armies are not part of my Latin American research. There is a part on siege warfare in the Low Countries however, in chapter fourteen.

While the European armies grew in size and devoted a lot of time to siege warfare, the Spanish case in the New World paints a contradicting picture, with very small military forces who, apart from Cortés and his months lasting siege of the Aztec capitol of Tenochtitlan, rarely are involved with sieges. In comparison with European battlefields, a relatively small number of fortifications existed in Mesoamerica. That was partially caused by an important invention missing from the Indian battlefields: the wheel. The wheel didn't influenced warfare directly, but limited transport to human carriers, which meant restrictions for warfare. Campaigns had to be short to avoid logistical problems with supplies. Combined with the lack of a notable infrastructure for armies to use, this had a huge influence on siege warfare. Securing a continuous food supply was difficult for the besiegers. Hopefully, by distancing myself from the limitations a concept like the military revolution prescribes and focussing on military innovation, the special circumstances of warfare in New Spain and New Granada become more apparent.

Because of my focus on military aspects, I've omitted the role of disease. Smallpox is traditionally seen as a major factor in the defeat of the New World inhabitants, who did not share Old World immunities and were thus highly susceptible, the so called 'virgin-soil' theory. In the past, this helped historians explain the major drop in population as well as European superiority.[23] While this lies beyond my military scope, it is imported to note that historians, until very recently, rejected this view by working alongside epidemiologists as well a revision of the primary sources.[24]

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[21] Jeremy Black, 'A Military Revolution? A 1660-1792 Perspective in: *The Military Revolution Debate. Readings on the Military Transformation of Early Modern Europe*, C.J. Rogers, ed. (Oxford 1995) 95-114, 95.

[22] See for instance Camilla Townsend, 'Buying the White Gods: New Perspectives on the Conquest of Mexico' in: *The American Historical Review* Vol, 108, Issue 3, 1-25, 2.

[23] Even recent books still cling to these claims. See for instance Jared Diamond, *Guns, Germs and Steel* (New York 2000).

[24] Francis J. Brooks, 'Revising the Conquest of Mexico: Smallpox, Sources and Populations' in: *The Journal of Interdisciplinary History,* Vol. 24, No. 1 (Summer 1993), 1-29. For difficulties assessing the pre-conquest population of the New World, see John D. Daniels, 'The Indian Population of North America in 1492' in: *The William and Marty Quarterly*, Third Series, Vol. 49, No. 2, (April 1992), 298-320. For a more recent approach

The conquest of Mexico has been very well documented and researched. Therefore, it is interesting to look at other parts of Southern America and the Spanish military affairs. The fact I choose New Granada, present-day Colombia has to with the work of Captain Bernardo de Vargas Machuca, who was born around 1555, *The Indian Militia and the Description of the Indies.*[25] First published in 1599 and not translated in English until recently, it is considered to be the first guerrilla warfare manual. Militia commander De Vargas Machuca fought not during the conquest of New Granada but much later, in the period 1578-1595, when the Spanish tried to expand and consolidate their winnings. Unhappy with his gains, he tried to show his king that he had proved his worth and that he should be rewarded with a governor's post. When studying this book, it should be possible to see what the Spanish learned from the half a century fighting abroad by comparing this to their way of warfare during the Mexican conquest around 1520. Next to that, De Vargas Machuca fought in the same period of military innovation Roberts and Parker placed so much emphasis on. Can the military innovations that they saw as part of the military revolution traced back to the writing by De Vargas Machuca?

In short, this thesis will be dealing with military innovation or the global effect of the military revolution in the sixteenth century with its focus on Spanish conquest in Latin America. By first studying different aspects of warfare during the conquest of New Spain and New Granada and by comparing them with the way the Spanish troops led by Vargas Machuca fought, I hope to determine whether or not military innovation, ascribed by Roberts and Parker to the military revolution, took place. The next step is assessing whether these innovations fit the traditional view of European dominance or not.

My research is divided in three parts, following the chronological order of first the conquests of Mexico and Colombia in the first half of the sixteenth century. The second part deals with the work of Vargas Machuca in New Granada in the late sixteenth century and the third with Francisco Verdugo. This last part differs in layout from the previous two because it deals directly with the different European battlefields of the northern provinces of the Low Countries, where a Spanish captain found himself in a similar position as Vargas Machuca. In order to fully grasp military innovation, it is important to start with a short introduction of the conquest of both New Spain en New Granada, respectively present day Mexico and Colombia before I pay more attention to the five aspects of Spanish warfare: the use of firearms, horses, steel, ships and infantry. By discussing these five elements, I hope to give an accurate description of Spanish warfare from which signs of military innovation become clear. By doing the same for the second part, which takes place roughly half a century later, the answer to the question whether Europeans achieved superiority because of military innovation, should become even clearer. To fully understand the Spanish strategy and tactics, one must also research the way their opponents fought as

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to the subject, see Charles C. Mann, *1493: How the Ecological Collision of Europe and the Americas Gave Rise to the Modern World* (New York 2011).

[25] Bernardo de Vargas Machuca, *The Indian Militia and the description of the Indies* translated by K. Lane (London 2008).

well. Where possible, the chapters will also deal with the inclusion of the indigenous way of war.

It should be interesting and prove helpful as well to pay some attention to battles in Europe where Spanish troops also fought. When Vargas Machuca fought in New Granada, at the same time the troops of Philip II (r. 1556 - 1598) fought the Dutch rebels who had abjured him. The comparison of these two conflicts should prove whether the early modern military innovation is a specific European phenomenon or not. But, my focus will be the juxtaposition of the situation of New Spain and New Granada.

Sources

The conquest of Mexico is a well-trodden path for (military) historians, in which most turn to *Mexico and the Spanish Conquest*[26] by Ross Hassig. In a remarkable concise book, Hassig uses contemporary accounts to explain the expeditions of Cortés. The focus of his work is military and the data still holds up today. The conquerors themselves published several texts such as the letters of Hernán Cortés.[27] Several companions of Cortés also wrote about their time with him.[28]

The book[29] of Vargas Machuca is my main source of information for the situation in New Granada in the late sixteenth century. Because his work is not about the conquest itself but the period after, when Spain tried to consolidate their holdings, the writings[30] of *conquistador* Gonzalo Jimenez De Quesada (b. 1495 –1579) are helpful too. De Quesada played a role similar to Cortés when he led an expedition to conquer New Granada from 1536 to 1539.

There isn't much source material from their enemies, the indigenous peoples of America, due to the fact that their culture had not yet achieved the same amount of literacy as was to be found in Europe. This makes balanced research harder, but not impossible. The *Florentine Codex* for example, is the result of the Franciscan friar Bernardino de Sahagún (b. 1499 –1590) who based his research on his Aztec students. This was published in the year of his death in the illustrated *La Historia General de las Cosas de Nueva Espana*, although it is more commonly known as the *Sahagún* or *Florentine Codex*.[31]

My inclusion of the Dutch Revolt comes from a man in a similar position as Vargas Machuca. Francisco Verdugo (b. 1537 – 1595). Just like Vargas Machuca, he wrote his book to prove he should be awarded for his merit and just like his American counterpart; he fought in a distant place and was not highly rewarded by his king. His lengthy report was translated by Jan van den Broek and published as *Voor God en mijn koning*.[32]

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[26] Ross Hassig, *Mexico and the Spanish Conquest* (London 1994).
[27] Hernán Cortés, *Letters from Mexico* translated by Anthony Pagden (Yale 1986). Hernán Cortés, 'from Second Letter to Charles V' in *The Library of Original Sources Vol. V: 9th to 16th Centuries* (Milwaukee 1907). Hernán Cortés, *Five letters, 1519-1526* translated J. Bayard Morris (London 1928).
[28] Francisco López de Gómara, *The pleasant historie of the conquest of the West India, now called new Spaine: Atchieued by the most worthie prince Hernando Cortes, Marques of the valley of Huaxacac*, translated by T.N. Anno (London 1596). Bernal Díaz del Castillo, *The conquest of New Spain* (London 1974).
[29] Vargas Machuca, *The Indian Militia*.
[30] Robert B.C. Graham, *The conquest of New Granada, being the life of Gonzalo Jimenez de Quesada* (New York 1967).
[31] Bernardo de Sahagún, *General history of the things of New Spain* translated by Arthur J.O. Anderson, and Charles E. Dibble (Utah 1950).
[32] Francisco Verdugo, *Voor God en mijn koning. Het verslag van kolonel Francisco Verdugo over zijn jaren als legerleider en gouverneur namens Filips II in Stad en Lande van Groningen, Drenthe, Friesland, Overijssel en Lingen (1581-1595)* vertaald door J. Van den Broek (Assen 2009).

Part One

The Spanish conquest of Mexico and Colombia

1519 - 1539

Chapter One: Spanish expansion abroad, the conquest of New Spain (Mexico) and New Granada (Colombia).

> 'And that the Indies are all one island in whose body are embraced Peru, the New Kingdom of Granada, Brazil, Tierra Firme, and New Spain, and also Florida and New Mexico, lands that were always savage until our Spaniards tread upon and discovered them.'[33]

> 'Their chieftains, treated as gods, borne on the shoulders of their subjects, refined, intelligent, and far more reasonable than were their conquerors-boldly met the onslaught of a race of men who fell upon them, as it were, from the skies- a race of beings sheathed in steel, riding on animals that seemed a part of them, who breathed out fire, as the Indians thought, taking the harquebus as in some way connected with the horse. With their poor arms and quilted cotton doublets, their poisoned arrows and their fire-hardened spears, they faced those "children of the sun", dying in heaps, just as Leonidas and his three hundred Spartans died for the fatherland.'[34]

Fierce enough to risk their lives protecting their home against strange invaders coming from the east were the native inhabitants of the Indies but not fierce enough to disperse those unfamiliar looking men.

In the fifteenth century Spanish and Portuguese traders started to explore further than they had ever went before. Finishing the *Reconquista* on Iberian soil, the Spaniards [35] looked on to other lands. Amongst others, technological improvements such as the compass and the invention of new ships made this possible. The discoveries of Vasca da Gama and Christopher Columbus paved the way for others, who took on the quest to discover new and rich lands for their king.

We have to tread lightly when dealing with the contemporary sources writing about these exceptional men. Most of the sources about individual feats fall under the *probanza de mérito* category, proofs of merit, autobiographical texts for the king in order to inform him of the discoveries and at the same time petition for rewards based on the discovery. It was in the interest of the author to exaggerate, '*men whose claims to royal reward and influence in local colonial affairs depended on testimony and credentials pertaining to major episodes in the history of New Spain'*.[36] The historiography of the Spanish conquests is still very traditional, with a focus on Spanish sources, such as the *probanzas*, and their

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[33] Vargas Machuca, *The Indian Militia*, 24.

[34] Cunninghame Graham, *The Conquest of New Granada*, 79.

[35] See Cunninghame Graham, *The Conquest of New Granada,* 86-7. '*The Spaniards of those days, just emerged as they were from eight centuries of warfare with the Moors, and for the first time masters in their own country, esteemed but two professions- the church and arms. To the first they gave the blind devotion and respect so frequent in all martial nations; but to the second their affection, and affection usually is stronger than respect.'*

[36] Rolena Adorno, 'The Discursive Encounter of Spain and America: The Authority of Eyewitness Testimony in the Writing of History' in: *The William and Mary Quarterly*, Third Series, Vol. 49, No. 2 (April 1992), 210-228, 215. See also, Matthew Restall, *Seven Myths of Spanish Conquest* (Oxford 2003), 12. The *Indian Militia* by Vargas Machuca can also be seen as one great *probanza* for he hoped to prove Philip II his value was so great that he deserved a substantial reward. The lengthy report about the conquest of Mexico written by Cortés' friend Bernal Díaz del Castillo at the age of 84, Díaz del Castillo, *The conquest of New Spain* is also a *probanza.*

perspective, as opposed to inclusion of more native accounts and archival research.

Columbus reached the New World on his first voyage in 1492, the same year as the fall of Granada in southern Spain, which resulted in the completion of the *Reconquista*. It was not until his second journey a year later that Columbus started the actual colonisation process in parts of present day Haiti and the Dominican Republic, claimed by him as Hispaniola.

Rising numbers of European settlers made quite the impact on the area and the daily lives of the native inhabitants.[37] Hispaniola was the starting point for the penetration into others parts of the New World, from there the Spanish travelled to Puerto Rico (1508), Jamaica (1509) and Cuba (1511). Their next target was Yucatán (1517) that could be seen as a proving ground for the conquest of Mexico two years later. '(…) *the Spanish took their understanding of, and adaptation to, native warfare with them to central Mexico, which gave them a significant advantage over those Indians they were yet to encounter*.'[38]

What took place over the course of three expeditions into Yucatán in two years? The indigenous population of the Yucatán peninsula had achieved a much greater level of organisation than their counterparts that were already overrun by the Spanish. Yucatán proved to be a bigger threat than the Spaniards previously had dealt with. In total, the governor of Cuba, Diego Velázquez de Cuéllar (b. 1465 – 1524) had to send 760 men[39] on eighteen ships spread across three expeditions to subdue native resistance from the local Maya's.[40]

The leader of the third expedition, Hernán Cortés de Monroy y Pizarro (b.1485 – 1547), after he had subjugated the Maya population of Yucatán, felt the need for further exploration. He reached central Mexico on the 21st of April 1519, with five hundred soldiers and sixteen horsemen. There, almost immediately, he found more gold than in the Mayan area. '*It was the Spanish greed for gold that sealed the Aztecs fate*.'[41] This traditional view, that Matthew Restall nuances by explaining that not the precious metals itself, but a potential governor post that came with them, was the primary goal of the *conquistadores*. One fifth was reserved for the monarch and the more he received, the greater the chance for reward became.[42] Next to that, as we shall see with the New Granada explorers, the precious metals were immediately used to fund the expedition itself.[43]

Cortés accepted the surrender of the Aztecs, the indigenous people who claimed hegemony over Mexico, a little over two years after his first landing on

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[37] Hassig mentions 1500 settlers, *Mexico and the Spanish Conquest*, 11, while Kamen lowers the number to 1200. Of those 1200, in 1493 almost thousand had died already, making the need for more immigrants even greater. Kamen, *Empire,* 42, 44.

[38] Hassig, *Mexico*, 52.

[39] These *conquistadores* should not readily be called soldiers or part of an army. A trained, uniformed, permanent, and using standard issue weaponry army did not even exist in Europe until the seventeenth century, let alone in the colonies.

[40] See Hassig, *Mexico*, 36, 41, 47. The first three ships harboured 110 men who were sent out on 8 February 1517; on the third of May the following they were accompanied by another 200 soldiers on four ships. Their numbers were rounded out when the final reinforcements left for Yucatán totalling 450 men.

[41] Hassig, *Mexico*, 53.

[42] Of course, the precious metal itself was also of financial importance. *Next to taxes, the royal* silver *mines of the New World were most important in royal finances*.' My emphasis, in the sixteenth century the government in Madrid received 150 thousands kilograms of gold as opposed to almost seven and a half kilograms of silver from the New World, Felipe Fernández-Armesto, 'The Improbable Empire' in: Carr, *Spain*, 144.

[43] Restall, *Seven Myths*, 22.

the thirteenth of August 1521. Their huge empire, compromising millions of inhabitants living under Aztec rule, with their superiority in numbers, could not withstand the Spanish *conquistadors*.

That did not mean Cortés' intrusion went smoothly. It was by far the biggest military achievement for the Spanish in the New World so far to subdue the Aztecs. Military superiority was important but the forging of alliances played the *decisive* role in Spanish success. Already in June 1519 Cortés found his first ally in the battle against the Aztecs.[44] The Totonacs paid tribute to their Aztec lords. By allying with the Spanish, they saw a way out and hoped for a chance to improve their position. Cortés on the other hand, realised that only by greatly strengthening his numbers he could stand a chance against the Aztecs. Because of his estranged relation with the governor, not much help was expected from that source. He had to turn to indigenous allies. Something that he could do because of two interpreters he had with him, Geronimo de Aguilar, who spoke Mayan and a woman called Malinche, who spoke the native language of Nahuatl.[45] It wasn't an easy process, communicating between two interpreters and three languages but eventually, the Spanish and Totonacs made an alliance, the first of many. We should not ascribe to Cortés the role of a master strategist. He certainly did not knew in the summer of 1519 what the outcome of this first alliance was, how much his biographers would like us to believe that. To see the success of the Conquest in the perspective of a native civil war or civil dissension between the Aztecs and their subjects seems more logical. The small number of Spanish troops could not play a decisive role in Indian politics, but by allying himself and exploiting native differences, Cortés created a much better position for himself.[46]

Cortés benefitted greatly from a passive attitude from the Aztec ruler Monteuczoma, who among other reasons delayed attacking the Spaniards because he wanted to ascertain information about their identity. Again, we have to be very careful with the sources. In the traditional narrative writers turned him into the embodiment of native inferiority as opposed to the spectacular Spanish success.[47] The fact that the Aztec leader Monteuczoma had given the Spanish a chance to advance and failed to stop them before reaching his capitol is traditionally described as his own fault, he would have been paralysed with fear. This one-sided notion must be negated; information about the fighting strength of the *conquistadores* had already reached him. Confronting them in a full-scale open battle would have been a massacre. Also, his army consisted of conscripted peasants who had the time off from their crops during the campaigning season that lasted from early December to late April.[48] Cortés landed in the end of the

[44] Hassig, *Mexico*, 57.

[45] She would eventually bore Cortés a son after the fall of the Aztec Empire. Even the fact that they developed a sexual relationship does not mean *her* role is documented well. The Spanish reduced the role of interpreters in order to promote the part they themselves played in the narrative of the conquests. See Restall, *Seven Myths*, 86. That the Spanish on some level believed there was no language barrier becomes clear in the case of the reading of the *Requerimiento*, wherein native leaders were informed of the plans of the Spanish and asked to surrender. See Restall, *Seven*, 87 and 94 or Kamen, *Empire,* 97 and 99, See for the party of Cortés reading the requirement Hassig, *Mexico*, 48-50 and 167.

[46] This severely underplays the role of the Spanish and denounces traditional historiography. '*Native peoples are everywhere in the Conquest alongside the Spanish'.* See Restall, *Seven Myths*, 43 and 51.

[47] Restall, *Seven Myths*, 114.

[48] Hassig, *Mexico*, 76.

season of 1519, already too late to muster a force more or less equal to the Spaniards. This shows little foolishness on his part.

On his way to the capital city of Tenochtitlan, Cortés gathered more allies who sought to improve their situation by replacing the Aztecs with the Spanish as tributaries. Once arriving in Tenochtitlan on the 24th of June 1520, the tide turned on the Spanish almost immediately. Stuck in the city they could not utilize their normal tactics from which they benefited so greatly in conquering Mexico thus far. Six days after entering the city, during *Noche Triste*, Cortés, his troops and his allies had to flee the capital, losing as much as eight hundred Spaniards in the process. Afterwards, they licked their wounds in the allied city of Tlaxcallan and planned to return.

Near the end of the year, Cortés started his final expedition against the Aztecs, which resulted in their demise and surrender in the summer of 1521. Cortés' final attack on Tenochtitlan showed great strategic and tactical insight and was pulled of by an immense amount of hard work, which could not have been completed without his numerous local allies. In an attempt to defeat the Aztecs, Cortés besieged the city, locking his opponents in like he himself had been trapped a couple of months earlier. By building ships he controlled the waterways the lake surrounding the city and effectively cut off the city's food and water supply.[49] Before starting his attack with the capital itself, Cortés eroded the Aztec base of power by defeating or allying with their tributaries around Tenochtitlan. Here, a three-month siege took place, the only noteworthy one in a time when Europeans at home besieged each other regularly in the recently developed *trace italienne* type of fortification. Sieges on a European scale were uncommon in the New World, native warfare tended to focus itself more on battles and raids than sieges. Fortified settlements were not as common as in Europe. Apart from local elements, Cortés' troops weren't trained soldiers, with the experience necessary to organize a complex operation such as a siege. When the city fell, the Aztec Empire was finally defeated. '*But the pivotal role had been played by his two hundred thousand Indian allies, even though they went virtually unacknowledged and certainly unrewarded.*'[50]

After the fall of the Aztec Empire, the area was renamed New Spain. Usually, the narrative stops here, which, according to Restall, has funded the myth of completion.[51] Cortés didn't conquer Mexico in 1521; he only destroyed the Aztec Empire. The fact this image has persisted up until now comes from the *conquistadores* themselves. In their *probanza de mérito* they wrote to the monarch that the region was suitable for colonisation and that a certain degree of control was already established. So, fighting in Mexico continued and Cortés awarded himself no rest.

The *conquistadores* looked on to other parts of the New World, where they hoped to find more riches. '*When we realized, that there we no gold mines or cotton in the towns around Mexico, we thought of it as a poor land, and went off to colonize other provinces'.*[52] Generally, the first phase of the Spanish Conquest starts with Columbus and ends with Cortés, the following phase takes place in

[49] Parker, *Military Revolution*, 103-4.
[50] Hassig, *Mexico*, 143.
[51] '*Looking at Spanish America in its entirety, the Conquest as a series of armed expeditions and military actions against Native Americans never ended'.* See Restall, *Seven Myths*, 72.
[52] Díaz del Castillo, *The conquest of New Spain*, 318.

the remaining part of the first half of the sixteenth century. One of the areas 'conquered' by the Spaniards in this phase is the area presently called Colombia. It remerged from the conquest as New Granada, or in Spanish, *Nuevo Reino de Granada*.

The Cortés of New Granada is Gonzalo Jiménez de Quesada (b. 1495 – 1579) who was responsible for leading the expedition that discovered most of what today is called Colombia. A native to Granada, he named the colony after his birthplace.[53] With no formal military training whatsoever, in 1535, he decided to abandon his law career in Spain in order to make his fortune overseas, to carve out his name amongst rival *conquistadores* as Cortés and Pizarro. When his party finally reached their initial destination, the port of Santa Marta, the situation was so desperate that an incursion to the unknown, dangerous interior was planned. The Spaniards needed provisions, and governor Don Pedro Fernandez de Lugo (b. 1475–1536) needed gold to pay his men. The journey was successful, although the Indians managed to kill several soldiers. In the end it was in vain, the son of Don Pedro de Lugo, Don Luis Alonso, stole all the yields and fled to Spain. Don Pedro decided one last, dire expedition was to be organized, led by Quesada.

On the sixth of April 1536, Quesada along with six hundred soldiers, two hundred sailors and eighty horsemen, started the expedition.[54] They went through great ordeals while exploring the interior. Indians, who fired poisonous arrows, were continuously harassing them. But the men suffered more from natural circumstances: high temperatures, lack of drinking water, diseases as malaria, surroundings which were full of swamps and dry ground that was nearly impossible to traverse because of thick vegetation. Animal life was abundant in the form of alligators, mosquitos and other insects while there was a shortage of game. To make things worse, his supporting navy lost three of the five ships in a storm, while the remaining two were badly damaged. Without tangible result, Quesada had already lost half of his men and the most of them didn't die in violent confrontations. '*Quesada fought in the first instance against a hostile nature, vastly more powerful and challenging than any that mankind had known before his time. He had to break his way into the fastness of a world that put out all its strength in heat and rain, in floods, in pestilences, in monstrous and invading vegetation that overflowed the paths his "*macheteros*" cut through it, and obliterated them almost as fast as they were made, Hunger and thirst (…) were with him constantly, the handmaidens of death.*[55]

The troops staggered on with an even greater load, because after two months on the road, their carriers had all died or fled the supposedly doomed expedition. Eight months underway, only a third of Quesada's soldiers were alive.[56] Luckily, around the same time, Quesada's weary troops also reached the first signs of civilization.

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[53] For certain is that the young Quesada lived his first twelve years in Granada, but he was possible born in Cordoba. See Cunninghame Graham, *The Conquest of New Granada*, 1. Quesada for the most part, fits Restalls sketch, see note 116.
[54] Ibid, 17-19.
[55] Ibid, 38.
[56] Cunninghame Graham, *The Conquest of New Granada*, 47.

Why were the *conquistadores* engrossed in looking for civilisations? It was impossible for a sixteenth century state to effectively govern a big area. If that area also was overseas, it was even more complicated. Native peoples, even when becoming subjects to the king of Spain, were permitted a certain degree of autonomy in order to rule them smoothly. Spain could not rule everyone directly and if they had tried to do so, resistance was bound to grow. So out of practicality, they had to adopt this type of rule.[57] In 1570, the royal geographer determined the number of Spaniards abroad to a mere 25,000 households, too little for the Spanish to effectively control their colonies.[58] Encountering a civilization increased the chance for Spanish domination.

But the findings of Quesada did not immediately meant his journey was a success. Because of the small size and poor state of the dwellings they had encountered, his men pleaded to return. But he was persistent to explore further in the direction of the mountain range, the Andes. And when he sent a preliminary force, they found salt during an encounter with Indians. And like gold in Mexico, salt in Colombia, '*sealed the fate of the Chibcha kingdom on the plains of Bogotá.'*[59] The presence of salt was seen as an example of a more civilized society, one like those found in Mexico and Peru and of which similar booty was predicted. With these spoils the soldiers returned, along with a captured Indian who in the future served as their interpreter.

After nine months, with a strike force consisting of less than two hundred soldiers and sixty horses, Quesada finally reached the plains of Bogotá, where the climate and landscape were more comfortable.[60] On the plains, the chief (the *cacique* or *zipa*) of the Chibcha speaking nations was called Bogotá. Quesada hunted him down, finding the capital Muequetá abandoned, before finally grabbing the chance to kill Bogotá in battle. This act gave him the same kind of false satisfaction of completion as Cortés' had experienced with the surrender of the Aztecs after the fall of their capital. On his hunt for the chief, Quesada's soldiers laid siege to several fortified towns.[61] During the conquest of New Granada, just like during that of New Spain, sieges were uncommon. The Indian way of war had not focussed itself on sieges, as warfare in Europe did. The Indians preferred open combat and raids, as opposed to hiding behind fortifications. The fact that Quesada had to besiege towns is the result of the success of his troops in the open field, Indians had to resort to other tactics.

In 1539 Quesada returned to Spain, applying in vain for a governorship of the land conquered by him. When this failed he returned to New Granada and died there of old age in 1579.

The Spanish conquistadores frequently made use of 'theatrical violence' in order to scare the native inhabitants. The seizure or execution of a local ruler was a regular move to instil fear, for the action itself usually didn't yield much strategic or tactical gains. Gaspar de Marquina, who was involved in the downfall of the Inca Empire wrote his father a letter after capturing a local leader, writing

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[57] Restall, *Seven Myths*, 73.
[58] Kamen, *Empire,* 122.
[59] Cunninghame Graham, *The Conquest of New Granada*, 55. Again, this must be seen in the right context. With salt, Quesada could pay for this expedition, as well petitioning his monarch for a reward for the discovery of riches.
[60] Ibid, 72.
[61] Ibid, 90. One of the towns withstood the siege and finally surrendered after eight days, only with the help of '*a large band of Indians who are said to have accompanied him, partly by fear and partly through goodwill'.*

'*with him prisoner, a man can go by himself 500 leagues without getting killed*'.[62] Another method was the mutilation of prisoners and releasing them thereafter, to instil fear and demoralization when they returned to their homes. A benefit to these practices was the effect it had on own morale; it showed the Spanish that their enemies, who frequently conducted ambushes, night attacks and used less than chivalric methods of warfare, could be hurt badly.[63]

While the different tribes on the plains were living together in the same kind of enforced tributary as the Aztecs and their vassals in Mexico, Quesada failed to play them out against each other as had Cortés had done.[64] Before finally confronting Bogotá, however he had tried to. He had ventured into Panches territory to either seek an alliance, or if that failed, to show the Chibcha he had taken out one of their enemies. He failed at both. That forging alliances wasn't Quesada's greatest trait became very clear when the successor of Bogotá, the new *zipa* Sagipá allied himself voluntarily with the victors, only to be tortured to death when Quesada demanded more spoils. In the end, he had defeated the main Indian tribe on the plains and thus succeeded in bringing another big area of the New World into his king's empire. '*The cost in lives was enormous. When Quesada reached his objective only 166 remained of the nearly 900 with whom he had set out.'*[65] Already after Quesada had left for Spain the actual colonisation process had started in New Granada. More Spaniards arrived, driving the Indians from their lands, founding new towns in order to become rich.

[62] James Lockheart, *The Men of Cajamarca* (Austin 1972), 4-7.
[63] Inga Clendinnen, '"Fierce and Unnatural Cruelty": Cortés and the Conquest of Mexico' in: *Representations,* No. 33, Special Issue: The New World (Winter 1991), 65-100, 74.
[64] Cunninghame Graham, *The Conquest of New Granada*, 121.
[65] Kamen, *Empire,* 112.

Chapter Two: Firearms

> 'To fire their harquebuses they charge them to the mouth with powder; they take hold of them half way along the barrel with their left hand and move their arms as far away as the can, to prevent the fire from touching them (as they are afraid of it); and when they light it with the wick in their other hand they turn their face away, just like those who are waiting for the blood letter to open a vein; and even when they fire they close their eyes and go pale, and shake like an old house.' [66]

> 'Caribbean natives were not capable of using *real* weapons, because they are hopeless cowards, and in all respects their deeds are like children's.'[67]

The first passage is dated 1568 and comes from a Spanish army captain; the second one comes from one of Columbus' letters about his first voyage. They contain some interesting information, namely that the use of firearms still managed to create problems, even in the second half of the sixteenth century, the period wherein, according to the theory of the military revolution, gunpowder changed everything. The Spanish were leading the way in the firepower arms race. The domination in the Italian Wars from 1494 onward rested on their adaptation of the harquebus, replacing the crossbow as main ranged weapon. They only had the Ottoman field and siege artillery ahead of them, but as far as the incorporation of small arms went, Spain claimed victory.[68] Columbus' remark shows that the Spanish believed their real weapons, namely firearms, gave them the upper hand.

According to the military revolution, the use of firearms was a revolutionary element in sixteenth century European warfare, truly changing the battlefield. This matches the traditional viewpoint that the Spanish conquered native resistance in the Americas quite easily because of their military superiority, because of their firearms for instance. But how did firearms function in the New World and were they indeed part of Spanish military superiority?

The Spanish soldiers travelling alongside Cortés and Quesada were armed in a similar way as their European counterparts, '*relying very heavily on infantry armed with pikes and swords, wearing various degrees and types of armour, and augmenting the infantry with crossbowmen and harquebusiers. To this was added a small cavalry unit, but the bulk of the combatants were foot soldiers trained in the Iberian tradition of individual combat*'.[69]

The Indian equivalent of the Spanish hand-to-hand weapons was inferior due to the absence of steel in the New World. According to the traditional point of view, the Spanish troops enjoyed benefit from their firearms. On their conquest in Yucatán and Mexico they took crossbows, portable firearms as the

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[66] Lorraine White, 'The Experience of Spain's Early Modern Soldiers: Combat, Welfare and Violence' in: *War in History* Vol. 9, No. 2 (2002), 1-38, 17.
[67] My emphasis. Restall, *Seven Myths*, 103.
[68] John Frances Guilmartin, *Gunpowder & galleys: changing technology & Mediterranean warfare at sea in the 16th century* (London 2003), 256.
[69] Hassig, *Mexico*, 9.

harquebus and the lighter cannon and stationary, heavier cannons. The sheer weight of the latter made transportation troublesome and thus restricted their use.

A crossbow had a maximum range of 64 metres point blank, weighed at little as five kilo and had a low firing rate. The harquebus, measuring one to one and a half metres long, was effective in precision and killing with a scope of sixty metres with a 0.6 calibre firing one ounce shot, although its maximum range was roughly twice as long. It weighed around six kilos, which limited its use in longer skirmishes. [70] Estimates of reconstructed early modern harquebuses and muskets show a depressing chance of 10-15 per cent to hit someone at roughly ninety metres, no more than one in fifteen soldiers being hit.[71] One of the main disadvantages was its inaccuracy, increased by the recoil. Apart from that, the time-consuming and complex reloading process made the shooter immensely vulnerable. An experienced bowman had six times the amount of shots in a minute a crossbowmen had.[72]

It is difficult to establish the exact rate of fire of a sixteenth century harquebusier.[73] Military historian Bert Hall argued that a well-trained soldier, in the ideal situation who didn't got interrupted could fire a maximum of one or two rounds per minute.[74] Of course, on the battlefield he was regularly harassed from doing his work by the opponent, which resulted in roughly one in eight misfirings, increasing to one in six or less in wet conditions. Comparing this with the standard issue of one pound of gunpowder per soldier and twenty lead shot means that after ten or twenty minutes the shooting was over and soldiers resorted to hand-to-hand combat.[75] This is of course the situation when an army was regularly resupplied. In the New World this wasn't the norm.[76] The troops in the New World frequently had to deal with very limited powder and shot to begin with, and usually very little additional supplies being brought in. The problem became even greater because of the fact that their enemies greatly outnumbered them, and in these kinds of situations the slow firing weapons that quickly used up their limited supplies weren't advantageous. '*Firearms were of limited utility, as they had little impact on the massive armies the imperially organized peoples of the Americas could muster*[77]*.*

The dire need for funds and supplies was the main cause for Quesada's expedition into the then unexplored mainland, so his troops had to severely ration their gunpowder. The tide only turned for him when he reached the higher plains, where Quesada could utilize his remaining greatest weapon, the horses, to its fully extent. From that moment, his troops had less to fear from their Indian adversaries. Because of his mounted lancers, he bested his

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[70] White, 'The Experience of Spain's Early Modern Soldiers', 14.
[71] George Raudzens, 'Firepower Limitations in Modern Military History' in: *Journey of the Society for Army Historical Research* No. 67 (1989), 130-153, 132.
[72] Hassig, *Mexico*, 38
[73] For detailed accounts on the firiing of firearms see Gheyn, Jacob, de, *Wapenhandelinghe van roers, musquetten ende spiessen: Achtervolgende de ordre van Sÿn Excellentie Maurits, Prince van Orangie, Grave van Nassau, etc., Gouverneur ende Capiteÿn Generael over Gelderlant, Hollant, Zeelant, Utrecht, Overÿessel, etc* (1608).
[74] Hall, Bert. S., *Weapons and warfare in Renaissance Europe: gunpowder, technology, and tactics* (London 1997), 149.
[75] White, 'The Experience of Spain's Early Modern Soldiers', 11.
[76] Hassig, Ross, *Aztec warfare: imperial expansion and political control* (Norman 1998), 238.
[77] John E. Kicza, 'Patterns in Early Spanish Overseas Expansion' in: *The William and Mary Quarterly,* Third Series, Vol. 49, No. 2 (April 1992), 229-253, 249.

numerical superior opponents. Very little is said about firearms from that moment on. In fact, earlier they were caught in a terrible flood that destroyed what little there was left of their provisions, and proved the final blow for the gunpowder and crossbow strings, already damaged by rust caused by the damp climate.[78] Wet powder is useless so the expedition had to fight with native weapons for most of the higher quality Spanish arms were too greatly damaged from the months of travelling in a harsh climate. This clearly shows that in his case, the Spanish victories had little to do with their use of superior firearms, for practical issues like the climate and limited supplies restrained their deployment against the Indians.

The conquests of Cortés on the first glance seem to benefit more from their inclusion of firearms. He was initially brought on as the leader of the third expedition against the Mayans of Yucatán. The first expedition returned after a little over two months, with their leader Francisco Hernández de Córdoba (b.? – 1517) deadly wounded and nearly half of his fighting force decimated by overwhelming Mayan numbers. After this failure, the Spanish took more guns with them, and in case of Cortés, horses as well. This time, they succeeded.

His masterpiece, the conquest of Mexico, could not have been pulled of without his local allies. After being successful in Yucatán, when Cortés left for Mexico, his initial striking force was not equipped to early modern Spanish standards. Of his 503 soldiers, there were only 32 crossbowmen and even less gunmen, only thirteen of his soldiers carried a harquebus. Less than ten per cent of his troops carried firearms. Ten bronze cannons were also part of the arms, six so heavy they had to remain bolted to the ships.[79] Although the reports of limitations on supplies aren't as frequent as those of Quesada, Cortés had to be dealing with a shortage of munitions too. Combined with a low number of shooters, the story of military superiority attributed to gunpowder lacks firm ground.

The scarcity of munitions was troublesome for the Spaniards, but it did save them initially from the use of their own weapons against them. Indians frequently captured Spanish harquebuses and on rare occasion, even a cannon.[80] But they could not use them for the lack of powder and shot.[81] The cannon was sunk and the smaller arms were destroyed.

This does not mean that the Spanish did not enjoy benefits from their weapons. During the first encounters, the psychological element was huge. From the *Florentine Codex* comes the following description of the devastating effect of firearms. '*And the guns were well trained upon the people; well did they aim them. And when the shots fell, they went to the ground, there was covering of the ground as if a mattress were stretched out. Without one's noticing it, it came upon one; without one's knowing it, it slew one; as many as they overtook, so many indeed died when they struck their vital parts, perhaps their foreheads, or the back of their heads, or in their harts, or their chests, or their bellies or indeed their abdomens.*

[78] Cunninghame Graham, *The Conquest of New Granada*, 59.
[79] Bernard Grunberg, 'The Origins of the Conquistadores of Mexico' in" *The Hispanic American Historical Review*, Vol. 74, No. 2 (May 1994), 259-283, 263-4.
[80] Hassig, *Mexico*, 140.
[81] Townsend, 'Buying the White Gods', 13.

But if they struck only their thighs or their shoulders, they did not then before die, they were not therefore in danger, rather they recovered.'[82]

The cannons are frequently mentioned of scaring Indian war canoes[83] or averting an Indian charge. Although classified as *light* cannons, the falconets weighed a minimum of 225 kilograms. Munitions differed from almost two kilos to five and a half cannonballs, which killed and destroyed 140 metres point blank range.[84] The wide scale damage these weapons could inflict increased because they were breech-loaders. The disadvantages of this weapon were big, incredibly difficult to move because of their weight and built, which did not let them be loaded upon carriages. Their precision was also very poor; they were best used against fortifications but those were rarely found in the Americas. *[85].*

After the initial confrontations, the Mexican warriors also gathered how to minimize the amount of damage sustained from firearms. '*Mexican warriors, learned, with experience, not to leap and shout and display when faced with canon fire and crossbows, but to weave and duck, as the shield canoes learned to zigzag to avoid the cannon shot from the brigantines, so that with time the carnage was less*.'[86]

In the traditional historical point of view, Europe enjoyed military superiority over their native enemies, because of military innovation such as firepower. Studying the conquest of Cortés and Quesada, a different view becomes clear. They truly gave the Spanish an upper hand in conflicts where they could be fully utilized, but they did not play a decisive role on the battlefields of the Americas. In contrast to early modern European armies, a relative low number of troops were armed with guns.[87] Their deployment on the battlefield was severely limited due to lack of powder and shot, as well as factors as the weight and reloading speed of a weapon. When put against the massive amounts of archers, the Indians could inflict more damage, were it not for the Spanish steel armour.

Later in the sixteenth and early seventeenth century, when the colonisation process was going steady, Europe did enjoy a superior position because of their firearms. But that was only because of the fact those weapons were important on a large-scale basis, much larger than the *conquistadores* ever saw. *'Larger numbers of guns suggest quantitative superiority over technological advantage'*[88], which downgrades European military superiority. Even William Prescott, an author who wrote a best-selling study of the Conquest of Mexico in times '*when History still taught lessons'*[89] dismissed the firearms superiority. *'The Indian Empire was in a manner conquered by Indians'.*[90]

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[82] George Raudzens, 'So Why Were the Aztecs Conquered, and What Were the Wider Implications? Testing Military Superiority as a Cause of Europe's Pre-industrial Colonial Conquests' in: *War in History* Vol. 2, No. 87 (1995), 87-104, 102.
[83] Hassig, *Mexico*, 127.
[84] Ibid, 42.
[85] Kicza, 'Patterns in Early Spanish Overseas Expansion' , 249.
[86] Clendinnen, '"Fierce and Unnatural Cruelty, 82.
[87] George Raudzens, 'War-Winning Weapons: The Measurement of Technological Determinism in Military History' in: *The Journal of Military History*, Vol. 54, No. 4 (Oct., 1990), 403-434, 411.
[88] Ibid, 401.
[89] Clendinnen, '"Fierce and Unnatural Cruelty, 65.
[90] William Prescott, *The History of the Conquest of Mexico* (Chicago 1966), 374.

Chapter Three: Horses

> 'The Captain Cortés: a vicious dark chestnut horse, which died as soon as we had arrived at San Juan de Ulúa.
> Pedro de Alvarado and Hernando López de Avila, a very good sorrel mare, good both for sport and as a charger. When we arrived at New Spain Pedro de Alvarado bought the other half share in the mare or took it by force.
> Alonso Hernández Puertocarrero, a grey mare, a very good charger which Cortés bought for him with his gold buttons.'[91]

Bernal Díaz Del Castillo lists *all* the horses Cortés brought with him on the first expedition to Mexico and this shows the extreme importance the Spanish attributed to cavalry. Apart from higher social status, a rider even earned more than a common foot soldier. The horse was non-existent on the American battlefield before the Spanish came; the creature wasn't a native animal to the Americas. The horse is originally not a part of the military revolution theory, in fact, according to Roberts and Parker in Europe there is a diminishing cavalry due to the rise of firepower. What role did the horse play on the New World battlefield and was it a factor to which the Spanish owed military superiority?

The Spaniards showed great care for their horses, although this is not a clear reason for their military strength. Horses were expensive and it was makes sense to take good care to them. When Pizarro and his men suffered from altitudes and the geography of Peru, although their own hardship took its toll, they went to great lengths to ensure the wellbeing of their horses. They even set up an improvised forgery to reset horseshoes lost or damaged in the rugged terrain.[92] Before reaching the plains of Columbia, Quesada and his starving men left the horses alive. When one of his soldiers caved and slaughtered his steed for provisions, Quesada had him executed as an example for the others: the horses were too important to be simply eaten, even in times of great shortage.[93]

His enemies feared the horses. When Quesada had reached the plains, he could maximize the shock effect of his cavalry, something that crushed indigenous resistance. That his opponents feared the horses greatly becomes clear when they go at great lengths to counter them, they constructed traps, sharpened logs placed on tactical advanced position to counter the charges.[94] They extended their lances to hit their combatant before he could hit them.[95] None of the Indians of the Americas had a shock weapon with the same effect as the Spanish rider, and they quickly came up with the aforementioned counter tactics. '*Cursory analysis of the Cortés or Pizarro campaigns shows that the Aztec and Inca alike adapted quickly to horses (…) within the limits of the means available to them*.'[96] The same climate that ruined gunpowder also had its toll on

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[91] Bernal Diaz del Castillo, *The conquest of New Spain,* 51-52.
[92] Guilmartin, John, 'The cutting edge: an analysis of the Spanish invasion and overthrow of the Inca empire' in: Kenneth J. Andrien and Rolena Adorno (ed.), Transatlantic *encounters: Europeans and Andeans in the sixteenth century*, (Oxford 1991) 40-69, 49.
[93] Cunninghame Graham, *The Conquest of New Granada*, 49.
[94] Ibid, 22.
[95] Townsend, 'Buying the White Gods', 13.
[96] Guilmartin, 'The cutting edge', 41.

the horses, although the hardest area for them to be fighting was in Peru, where the high altitudes and rocky terrain restricted their use. But Quesada had troubles with slithering, cold-cramped or foundering horses too although this did not seem to bother him very much, he had more trouble from 'vampire-bats'.[97]

When Cortés finally reached the Aztec capitol of Tenochtitlan and when the Aztecs became violent, he immediately found out that his superiority was contested more than out in the open fields. In the city, he could not use his cavalry to rule over the battlefield as he had done before.[98] The horses could rarely find the space to charge, and if they succeeded to find it, quite a few of them slipped on the stones. It turned out that even firearms did not give him the upper hand when confronted with many adversaries.[99]

The main strength of the horse lay in speed, enlarging the damage done with a shock attack, with the sheer size as a supporting ability. Apart from their use in battle, the horses also proved their worth in other matters such as exploration. '*The horses were of utmost importance. Three horses could turn a dire situation into a rout. They could even solve the problem of food supplies: clusters of armed horsemen could take a village or market by surprise and return with what the Spanish needed*.'[100]

Because of the low number of horses that the Spanish had taken with them, their worth in battle[101] and their vulnerability against the crushing power of the sling-fired projectiles; the Indians captured few alive. The only reports of Indians fighting on horseback come from present-day Chile, where during the 'Araucanians War' (1541-1883), a series of conflicts between the Spanish and the indigenous Mapuche Indians, because of on-going colonisation the horse could be bought from traders and thus became more common in America.

In the traditional historical point of view, Europe enjoyed military superiority over their native enemies, because of recent military innovation such as firepower. The horse is not a part of the early modern military revolution theory of Roberts and Parker, there had been riders fighting on horseback much earlier than the sixteenth century. Although it does not constitute military innovation on the European battlefield, the conquest of America shows that the strength of the horse as a shock weapon is evident. This is reflected in the way the Spanish treated their horses. In itself cavalry wasn't decisive, for example because of the low number of horses in comparison with steel swords, but combined with other elements of the Spanish way of war, it proved no match for the Indians who lacked a similar weapon of their own.

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[97] Cunninghame Graham, *The Conquest of New Granada*, 44.
[98] Díaz del Castillo, *The conquest of New Spain*, 234.
[99] Ibid, 300-7.
[100] Townsend, 'Buying the White Gods', 9.
[101] Restall, *Seven Myths*, 55.

Chapter Four: Steel

> 'Spanish arms formed the cutting edge of contact between the two civilizations (…), both metaphorically and literally.'[102]

> 'Strictly speaking, it was European arms and not just firearms which proved so devastating against native Americans.'[103]

> 'Their war gear was all iron. They clothed their bodies in iron, they put iron on their heads, their swords were iron, their bows were iron, and their shields and lances were iron.'[104]

Steel is an alloy that was not discovered by the inhabitants of the Americas. So when Columbus reached the New World and when his successors started to explore and conquer beyond the initial areas, they enjoyed military superiority because of their steel swords, breastplates and helmets. Like horses, steel isn't a part of the early modern military revolution; it had been already used since classical times and according to the theory, it lost the leading role on the battlefield to firearms. As we already have seen, the firearms situation in the New World wasn't the same as in Europe; much lower amounts of guns were used by Cortés and Quesada's troops. This meant they relied more on 'old-fashioned' steel hand-to-hand weapons to best their Indian opponents.

Because their reliance on the superior position created by firearms was troublesome because of lack of powder and shot, '*the Spaniards always preferred close combat, where they would use their metal weapons to excellent advantage, to a prolonged exchange of projectiles, where even their superior protective garments could not protect them fully against the waves of arrows and spears of their far more numerous opponents*.' [105]

With their steel swords, they could inflict more damage and move quicker than their Indian counterparts could. On top of that, they were better protected. The Aztecs fought with the *macuahuitl*[106], a wooden sword in the form of a cricket bat half a meter long, with sharpened obsidian along the edges. Because of the shape and size, it was inferior to the steel swords of the Spanish, but not harmless. Obsidian could be as sharp and deadly as steel, but not as sustainable.[107] The Aztec use of the thrusting spear, *tepoztopilli*[108], and the throwing version, *atlatl*[109] in combination with the standard tactic of soldiers attacking first from a distance with the spear, then closing in for close-combat killing with their *macuahuitl*, protected by rectangular shields while being supported by a barrage of sling-fired crushing stones, proved to be quite troublesome for the Spanish invaders.

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[102] Guilmartin, 'The cutting edge', 44.
[103] Raudzens, 'So Why Were the Aztecs Conquered', 89.
[104] James Lockhart, *We people here: Nahuatl accounts of the conquest of Mexico* (Berkely 1993), 80, 90, 96, 110.
[105] Kicza, 'Patterns in Early Spanish Overseas Expansion', 249.
[106] Hassig, *Aztec Warfare 83.*
[107] Ibid, 102, 104.
[108] Ibid, *80.*
[109] Ibid, *76.*

Most of the Indian warriors were equals of the Spanish *conquistadores* in terms of fighting. In native culture warrior prowess was highly sought after, so the Spaniards found themselves against trained and experienced warriors.

In this particular element of warfare, they did enjoy a vastly superior position, thanks to their steel armour. The cotton armour of their enemies offered little to none protection for bullets, bolts, steel swords or cannonballs. But on the other hand, Indian projectiles such as arrows and stones could not penetrate steel armour easily, and it was only from very close-by that Indian warriors could have a slight chance of lethally wounding a Spaniard. The notion that the Aztecs saw the *conquistadores* as gods has been rejected but it still comes to mind when visualising those steel-clad soldiers, withstanding a numerical superior opponent without seeming to be wounded in the process.

Steel armour was in itself not decisive. In Mexico, '*the Spanish supplemented and partially replaced their steel armour with lighter, warmer, and more flexible protective garments of quilted canvas and padded cloth.'*[110] This was the case for several of Quesada's soldiers as well; who also used quilted cotton armour. *These fall below the knee, and sometimes to the calf. They are all stuffed with cotton, to the thickness of three fingers. (…) Of the same cotton they also make a breastplate and a helmet, though some make these of tapir's or ox hide, formed like a skullcap.*[111] It is also mentioned that '*soldiers who have a steel helmet prefer it',* showing that their heads were the most vulnerable.[112] Just as we have seen with firearms, after a while the *conquistadores* ran out of supplies to repair their swords and armour. They had to turn to indigenous ways of arming and protecting themselves. Again, this shows no clear military superiority was decisive for the Spanish victory, Quesada's raggedy fighting force had to abandon their rusted weapons and heavy armour long before their victorious battles on the plains, there they usually fought with native weapons.[113] The troops of Cortés also were impressed with the quality of native weaponry such as '*stone knives, which cut much better than our swords*'.[114] In other words, steel gave the Spanish an advantage, but it did not solely contribute towards the completion of the Mexican and Columbian conquest.

[110] Guilmartin, 'The cutting edge', 48.
[111] Here Cunninghame Graham quotes Fray Pedro de Aguado's *Historia de Venezuela*, a contemporary of Quesada. Cunninghame Graham, *The Conquest of New Granada*, 21.
[112] Ibid, 21.
[113] Ibid, 78.
[114] Hassig, *Aztec Warfare, 2.*

Chapter Five: Ships

> 'We all understood what was the work that lay before us, and with the help of our Lord Jesus Christ, we must conquer in all battles and encounters, as must be as ready for them as was befitting, for if we were anywhere defeated, which pray god would not happen, we could not raise our heads again, as were so few in numbers, and we could look for no help or assistance, but that which came from God, for we no longer possessed ships in which to return to Cuba, but must rely on our own good swords and stout hearts - and he went on to draw many comparisons and relate the heroic deeds of the Romans.'[115]

> 'The key to the war lay with them. (…) As the wind was good, we bore down through the middle of them, and although they fled as fast as they were able, we sank a huge number of canoes and killed or drowned many of the enemy, which was the most remarkable sight in the world.'[116]

Cortés gave this speech of the first quote right after he had dramatically burned his ships after his landing in Mexico. Ships are not a common element in the historiography of the conquest by Spain in the New World and this quote is probably one of the few that immediately comes to mind, next to the use of ships in the final siege of Tenochtitlan[117]. Due to the Spanish command of the seas their conquest eventually succeeded. With their ships, they could rely on a vastly superior amount of resources than their native opponents.[118] '*A new colony's linkage into the European commercial system was indispensable to its viability. The conquerors had to be able to ship their gains profitably to Europe and to receive its manufactured goods in return for their province to endure and prosper.'*[119]

George Raudzens has come up with the theory of the 'Maritime Evolution', which gave the Europeans the upper hand. According to him, it's too much to speak of a 'Sea Transport Revolution', because of the absence of truly, revolutionary changes. The critical point is the fact that the ships of the sixteenth century had the potential to bring an endless amount of resources, either bulk goods or people, on regular intervals. The Spanish in the Americas, but also other Europeans in other parts of the world, obtained the monopoly of the sea. Superior ocean-sailing ships with better guns dominated the sea. '*Heavy guns, routinely carried by ordinary merchant ships, allowed the amazingly rapid expansion of European dominion over American and Asian waters*.' [120] Sea transport was the critical advantage for European success.[121] '*In early modern war, success came more from higher combatant densities than greater firepower.*

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115 Díaz del Castillo, *The conquest of New Spain*, 123.
116 Cortés, Hernán, Letters from Mexico translated by Anthony Pagden (Yale 1986), 212.
117 Townsend, 'Buying the White Gods', 9.
118 Raudzens, 'War-Winning Weapons', 417.
119 Kicza, 'Patterns in Early Spanish Overseas Expansion', 246.
120 Raudzens, 'So Why Were the Aztecs Conquered', 90.
121 See Kamen, *Empire,* 112 and George Raudzens, 'Military Revolution or Maritime Evolution? Military Superiorities or Transportation Advantages as Main Causes of European Colonial Conquests to 1788' in: *The Journal of Military History* Vol. 63, No. 3 (July 1999) 631-641.

(…) Oceanic shipping monopolies enabled European migrants to outnumber American inhabitants at the critical points of foundation settlements.'[122]

The reliance on ships can be traced to both Cortés and Quesada. Although the vivid tale of burning one's own ships suggests a heroic deed of Cortés, outnumbered but in the end victorious, the truth is less valiant. Almost immediately from his landing early 1519, Cortés had the benefit of adding small amounts of reinforcements to his fighting force. Those reinforcements came from various ships that also arrived in Mexico. The biggest addition came from the ships from the expedition led by Pánfilo de Narváez (1478–1528), sent by the governor of Cuba, Diego Velazquez de Cuellar (1465 – 1524), to punish Cortés for his defiance. Cortés managed to best his opponent and the eighteen ships, with roughly a *thousand* soldiers, resources, horses, artillery and more Cuban auxiliaries, fell into his hands.[123] And from there it didn't end, up until right before the fall of Tenochtitlan, Cortés continued to accept more Spanish soldiers into his forces.

Quesada's expedition also relied heavily on his ships. His choice to trek alongside the river Magdalena was motivated by the critical support his ships could give him. Traversing the unknown interior by foot would have surely doomed the outnumbered soldiers, who were heavily hindered by Indian attacks. His decision to construct six brigantines by forced labour of the locals, mirroring Cortés' siege of Tenochtitlan, proved to be pivotal in the success of his expedition. On more than one occasion, the nearly starved troops linked up with the ships again, which saved their lives. During his expedition, even more ships were constructed from the small harbour of Vera Cruz. Without the supply ships sent by his superior, Quesada surely had perished. His enemies also saw the advantage the ships gave the intruders and frequently attacked them with their canoes.[124] When he reached the higher plains, the lifeline of his troops and later of the colony itself was the Magdalena River, which was the only transport link between the plains of Bogotá and the Spanish ports in the Caribbean Sea area.

Although ships did not give the Spanish a clear military superiority, the crucial naval support seems evident for the success of the conquests by Cortés and Quesada.

[122] Raudzens, 'Military Revolution or Maritime Evolution?', 641.
[123] See, Grunberg, 'The Origins of the Conquistadores of Mexico', 264.
[124] Cunninghame Graham, *The Conquest of New Granada*, 30.

Chapter Six: Infantry tactics

> 'The Aztecs responded that their lances and arrows were of no more use than their great valor; they had not been able to make the Spaniards retreat because a great lady of Castile had come before them, causing the Mexicans great fear and encouraging the Spanish soldiers to fight more bravely.'[125]

Not guns themselves, because they had been used since the Late Middle Ages, but guns fired simultaneously by trained troops was a crucial development in early modern warfare[126], crucial enough to receive, of both Roberts and Parker, a part in their military revolution. The use of firearms in the New World was limited in comparison with the combat zones in Europe. When the first *conquistadores* fought in America, drill, made famous by Maurice of Orange from the late sixteenth century, had yet to become a staple of the European battlefields. Therefore, it's too early to ascribe Spanish success to these kind of military innovations. But looking at the way they *did* fight maybe can elaborate on the reasons behind their success.

Arguably, the situation in the Americas differed greatly from the European battlefields. The *tercio* was the standard Spanish royal military unit, ideally compromising 3.000 soldiers. The *tercio* wasn't used in colonial warfare in the sixteenth century. That amount of soldiers, trained to fight as a unit or not, was much, much bigger than Columbus, Cortés, Pizarro, Quesada or any other *conquistador* would ever lead on an expedition. But there were more differences. '*Military experience was hardly necessary, since strict discipline and complex tactics were not called for in the type of warfare conducted against the indigenous societies*.'[127] A notable dissimilarity is the absence of sieges. While warfare in Europe concentrated itself more and more on sieges, the lack of fortifications found in the Americas meant the *conquistadores* rarely found themselves in a besieging, or besieged, position. Apart from sieges, the fact remains that warfare was conducted against an opponent who struggled against European technology as firearms and steel and horses, instead against an army trained and armed in a similar way such as they encountered in Europe. This led to the adoption of different tactics. '*The Spaniards could not simply transfer old world tactics to fight the Indians because they were typically outnumbered and surrounded.*'[128]

No deployment of the *tercio*, the amount of soldiers was lower than in Europe and the background and training of the men was different. An expedition usually consisted between 250 to 500 men, while the cavalry seldom exceeded twenty riders. A relative low number of men meant they preferably fought in a compact, defensive formation, protecting themselves from the barrage of projectiles while enjoying the most benefit from their own weapons against the charging Indians.

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[125] The lady in question was Saint Mary. See, Díaz del Castillo, *The conquest of New Spain*, 220.
[126] *'It was also professionalism, standardization, concentration, and projection of superior resources, and dozens of other things besides weapon superiority, which made the difference. It was not so much the guns, but the systems which used them and the ways they were used.'* See: Raudzens, 'War-Winning Weapons', 414.
[127] Kicza, 'Patterns in Early Spanish Overseas Expansion', 248.
[128] Hassig, *Mexico*, 97.

They were not raised through the same channels as those who went to war in Europe. Restall in *Seven Myths of Spanish Conquest* constructed a sketch of the average *conquistador* from their biographies. "*He would be a young man in his late twenties, semiliterate, from south-western Spain*[129]*, trained a particular trade or profession, seeking opportunity through patronage networks based on family and home-town ties. Armed as well he could afford, and with some experience already of exploration and conquest in the Americas, he would be ready to invest what he had and risk his life if absolutely necessary in order to be a member of the first company to conquer somewhere wealthy and well populated. He would not in any sense be a soldier in the armies of the king of Spain.'*[130]

There were no formal military ranks, apart from the leaders. '*Real soldiers were very few, and officers non-existent*.'[131] The men did have some experience in battle, already accustomed in fighting with swords and pikes, but this was nothing in comparison with the professionally trained soldiers in the army of the King of Spain. '*Queen Isabella sent no professional troops, and Cortés took no fully trained and experienced professionals to Mexico*.'[132] In fact, the first official troops sent to the Spanish colonies overseas left Spain in the 1560s, when Philip II sent garrisons not against indigenes but as defence against attacks from other Europeans.[133] '*The main threat to Spanish power in the New World came not from indigenous arms but European interlopers*'.[134] This does not mean however, that the men who travelled overseas were harmless lambs led to native slaughter. In the face of danger, they quickly learned to work with each other. Integrated units were born, killing with sword, pike and guns, alongside cavalry to ensure their chance to success.[135] According to John Guilmartin, an element typically ascribed to the military revolution can already be seen in the Spanish troops who were fighting in the colonies: professionalization. '*Cohesion, the social force that holds units together in combat and that makes the difference between a unit and a mob of individuals, was a Spanish strong point.'*[136] Other authors agree with him, Spanish organisation is seen one of the many elements with which these overpowered their native opponents.[137]

The development of warfare has always consisted of an on-going process between the offense and defence, which both try to gain the upper hand. Because the nature of the expeditions was different than war waged in Europe, the troops were different as well. They also encountered a new type of enemy who fought differently, which influenced tactics.

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[129] Grunberg goes into geographical origins in wider detail. See, Grunberg, 'The Origins of the Conquistadores of Mexico', 280. 269-272.
[130] Restall, *Seven Myths*, 43. According to Kamen, 'these men were often not even soldiers', *Kamen, Empire*, 96.
[131] Grunberg, 'The Origins of the Conquistadores of Mexico', 280.
[132] Raudzens, 'Why Did Amerindian Defenses Fail?', 384.
[133] Raudzens, 'So Why Were the Aztecs Conquered', 97.
[134] John F Guilmartin jr., 'The Military Revolution: Origins and First Tests Abroad' in *The Military Revolution Debate. Readings on the Military Transformation of Early Modern Europe*, C.J. Rogers, ed. (Oxford 1995) 299-333, 301.
[135] Díaz del Castillo, *The conquest of New Spain*., 302-3.
[136] Guilmartin, 'The Cutting Edge', 54.
[137] See, Hassig, *Mexico*, 98 or John Elliott, 'The Spanish Conquest and Settlement of America' in: Leslie Bethell, *Colonial Latin America*, Vol. 1 of *Cambridge History of Latin America* (Cambridge 1984), 151-198, 175-6.

'The Amerindians avoided pitched battles, but picked off any isolated European individual or small group.'[138] As has been stated in the previous chapters, the Spanish had technological superior weapons. They could not always be used nor were they in themselves decisive on the battlefield however the Indians did fear them. '*They sought to avoid pitches battles where they would have to fight person to person and face the superior weaponry and field tactics of the Europeans*'.[139] They resorted to guerrilla tactics to harm the Spanish as much as possible.

'*Ambush was a favourite trick in Indian warfare.'*[140] Most notably was the trick to feign a retreat in order to lure the enemy army away to a disadvantageous position.[141] Attacks usually started at dawn, without time measuring devices this was the easiest way to coordinate a simultaneous attack.[142] Night attacks were very difficult to organize, but both Cortés and Quesada were frequently disturbed in their sleep[143], obviously, the Indians used every tactic they could to hurt their enemies. They were so treacherous, that they rolled down boulders from mountain peaks on the men from Quesada's expedition, who already had so much trouble on their journey.[144]

The exception in the history of the Spanish Conquest is of course Mexico, where the amount of fighting troops was much higher than in other conquests abroad. Huge numbers of native allies played a pivotal role in enlarging the scale of warfare, never again would the Spanish colonies see war on such a grand scale. When Cortés started his final campaign against Tenochtitlan he himself had 86 horsemen, 700-foot soldiers and 118 crossbowmen and harquebusiers left. But over seventy-five thousand indigenous allies accompanied them.[145]

Spanish infantry tactics changed while fighting in the colonies overseas because of two reasons. First, the men sent were not the same as those who fought in Europe. Their training was different, their numbers were lower and as we have seen in chapter three, they had less firepower. The second reason tactics changed was because of their opponents. Outnumbered and faced with enemies who resorted to guerrilla style and avoided pitches battles, the *conquistadores* further changed their tactics. In the end they prevailed, but not because of their superior tactics per se, but because they could rely also on the use of firearms, steel and the horse. This, in combination with their organization, proved to be decisive.

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138 Raudzens, 'Why Did Amerindian Defenses Fail?', 338. See also Parker, *Military Revolution,* 119.
139 Kicza, 'Patterns in Early Spanish Overseas Expansion', 236.
140 Inga Clendinnen, *Ambivalent Conquests* (Cambridge 1987), 7. See also Hassig, *Aztec Warfare 103.*
141 See for instance Hassig, *Mexico*, 70, 113, 131.
142 Hassig, *Mexico*, 135.
143 Cunninghame Graham, *The Conquest of New Granada*, 62.
144Ibid, 12.
145 Hassig, *Mexico*, 122.

Conclusion of part one

In the traditional narrative the Spanish had so much going for them, the conquest of the New World was relatively easy. In reality, the situation is more complex. One of the main reasons Spain prevailed was due to an enormous amount of resources they could invest, much more than their opponents could counter. While assessing the roles of firearms, horses, steel, infantry tactics and ships, it has become clear that none of these elements of early modern warfare was in itself decisive, that the Spanish were victorious because of all these five elements together. Firearms were limited and because of sparse shot and powder not as useful against a numerical superior opponent than the brave *conquistadores* would have us believe. Both horses and steel were immensely helpful in fighting against an opponent who lacked those weapons, but also suffered from damages and limited supplies. The strength of the horse could be countered by avoiding open battles. The lack of open battles also was a disadvantage to the Spanish, who suffered from guerrilla warfare. Their opponents had turned to this style of fighting because of Spanish superior infantry tactics in the open. Ships continuously supplied the *conquistadores* and brought even more fresh soldiers to the Americas, a tide in which the Indian resistance drowned.

What of these elements of early modern warfare that combined gave the Spanish their 'cutting edge', to speak with the words of Guilmartin, can be related to the concept of military innovation or the military revolution? The Spanish way of fighting didn't notably differ from an earlier period. Two important elements stand out, tactics and ships. To speak of a revolution in tactics, like Roberts and Parker see with the introduction of gunpowder, goes too far in this matter. The Spanish did not fought in a revolutionary way, owing their victory to military innovation. They simply changed their fighting style, reflecting the situation in the New World. But although the amount of professionalization is an advantage for the *conquistadores*, it does not fit the theory of the military revolution. According to Parker, professionalization was the effect of rulers trying to maximize the strength of their new, bigger, armies.[146] Looking at the troops following Cortés and Quesada we see the opposite, smaller striking forces, not trained beforehand but turning to a new fighting style in the heat of battle. Concerning naval developments, these definitely show a similarity with the theme of Parkers *The Military Revolution* on the subject of the rise of the west. But as Raudzens has argued, to attribute these developments to a revolution would be too much; they are the outcome of maritime evolution, which started early in the fourteenth century.

So, by studying both the conquest of New Spain and New Granada, it has become clear that neither of these fit the theory of military innovation that should have given the Europeans the 'cutting edge', why they were victorious overseas. Could elements of military innovation be traced to a later period, namely the late sixteenth century where Parker and Roberts both see innovation? To answer this question, for the next parts we turn to Bernardo Vargas de Machuca in New Granada and Francisco Verdugo in the Low Countries.

[146] Parker, *Military Revolution*, 1.

Part Two
Spanish warfare in New Granada
1578 – 1595

Chapter Seven: *The Indian Militia* by Bernardo de Vargas Machuca

> 'Thousands of these men, many of them participants in Spanish wars in Europe and the Mediterranean, followed Cortés and Pizarro to the Americas in search of fame and fortune. The vast majority found neither, and many ended their lives fighting Native American *guerilleros* in the jungles, mountains and swamps that marked the outer limits of the Spanish Empire.'[147]

The men from the citation are the Spanish *conquistadores*, whose role has been thoroughly analysed in part one. After the initial conquest of New Spain and New Granada was more or less completed, the colonisation of those areas began. When the chances of new discoveries over time grew slimmer, men travelling abroad had to find new ways to make their fortune. Similar to the days of early conquest, a *probanza de mérito* was sent to the king, hoping for a reward. The crown at that time was unwilling to support large armies abroad so financial aid had to be gained in a different way than a royal salary.

We now enter the late sixteenth century, part of the period where both Roberts and Parker see a great deal of revolutionary military innovation in Europe. In the first part of my thesis, I've tried to answer the question whether particular elements of warfare gave the Europeans a military advantage as opposed to their Indian adversaries. In this part, I will use the role and writing of an individual soldier to assess whether the situation had changed for Europeans fighting abroad in the late sixteenth century and if so, if the changes are connected with military innovations normally identified with the early modern military revolution, in other words, the global effects of the military revolution.

When petty nobleman Bernardo de Vargas Machuca ('the smasher') of Simancas was born in 1555, the fabled days of Cortés, Pizarro or Quesada were over. Their achievements had already attained a legendary status, and were believed as one in a lifetime accomplishments, which could not be repeated again because most of Latin America was already explored. However, adventure, riches and the myth of El Dorado, still managed to attract Spaniards.[148] But first Vargas Machuca earned military experience by fighting alongside his father against the Moorish rebels in the second Alpujarras revolt of 1569-71. From there on he left for Italy and although the fighting mostly had stopped since the Peace of Cateau-Cambresis in 1559, Vargas Machuca, still learned the ropes of a military career.[149] When he was twenty-three years old, he left for Latin America. After decades of conquest abroad, Castile controlled the largest population centres, strategic ports and waterways, lands both fertile and rich in precious metals. There, they rarely encountered resistance. It was in the periphery of their empire the native population continued to thwart Spanish supremacy. It was there that Vargas Machuca arrived.

His first job was to fend of Caribbean pirates and English, Dutch and French merchants who threatened the Spanish monopoly in the New World. Afterwards he enrolled in a punitive campaign against maroons, where his harsh

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[147] Vargas Machuca, *The Indian Militia*, xi.
[148] David Abulafia, *The Discovery of Mankind, Atlantic Encounters in the age of Columbus* (London 2008), 310.
[149] Vargas Machuca, *The Indian Militia*, xli.

actions were rewarded with the post of captain. Serving in various positions to make ends meet, het travelled down the coast, hoping to improve his condition.

In 1585 he reached New Granada, where he married and settled down. Money was tight however, so Vargas Machuca had to lead several punitive campaigns where he hoped to be rewarded for, preferably with a royal *encomienda.* In total he led six expeditions against different native tribes. After initial failures he adopted a different strategy in order to overcome the insurgents, which sadly went hand in hand with gruesome and cruel tactics. With these experiences in mind he would later write *Milicia Indiana.*[150] In the ten years he called New Granada home, Vargas Machuca experienced a lot: his wife died; he singlehandedly founded the town of New Simancas that was sacked and abandoned in the first couple of months and he had travelled all over the colony in order to 'police' the native population. He thought it was time for his return to Spain and plead with the king for a substantial reward, hopefully a position of governor somewhere, maybe even an entrance into knighthood.

So, in 1595 he left New Granada. He wrote an extensive, autobiographical treaty, *The Indian Militia*, which was published in Madrid four years later. In a time when most treatises dealt with military practice, coming from men who fought in the Dutch Revolt, Vargas Machuca's text, apart from the geographical scope was not so different. He too, went on for great lengths about the qualities a commander should have in order to lead his troops, just as his contemporaries from Europe.[151] This document should be read as a *probanza*, wherein Vargas Machuca passed on his learning for the next generation of young Spaniards. Surely, Philip II could see the importance of such a document, written by an experienced soldier. To prove that his counterinsurgency tactics had not downgraded him to a common soldier, he quickly wrote and published another treaty, on the more noble practice of horsemanship.[152]

It took five years filled with numerous requests to the Indies Council for promotion, when finally Vargas Machuca advanced to magistrate of Portobelo, a small town on the Caribbean coast of Panama, '*said to be one of the sickliest, most pestilential towns in the Indies*'.[153] There, he worked on another publication, *The Defense of Western Conquests*, directly attacking the ideas of the late Dominican friar, Bartolomé de las Casas (b. c. 1484 – 1566) about the position of the Indian population. From desolate Portobelo, in 1609 he was sent as governor to an even less rewarding place, namely the Venezuelan island of Margarita, where again he used crude tactics to suppress and punish local natives. Completely overlooked by the crown, his financial situation was terrible, so great even that when Vargas Machuca's time as governor was fulfilled, he was completely broke. He had to lend a great deal of money for his return to the royal court in 1622. Before he could fulfil his new position as governor of one of New Granada's mining districts, he suddenly died. His career can be summarised as unrewarding hard

[150] The full title is *Milicia Indiana (Coleccion Claves de America*), from now on called by the English translation*, The Indian Militia (and the Description of the Indies).*
[151] For more on military treatises, see Fernando Gonzalez de Leon, *"Doctors of the Military Discipline": Technical Expertise and the Paradigm of the Spanish Soldier in the Early Modern World'* in: *The Sixteenth Century Journal*, Vol. 27 No. 1 (Spring 1996), 61-85.
[152] *Teoria Y Exercicios de la Gineta*, published a year later by the same publisher as *The Indian Militia.*
[153] Ibid, liv.

work, which led to excessive brutal measures in order to achieve success (which hopefully would lead to royal reward) and plagued by financial shortcomings.

By writing *The Indian Militia* Vargas Machuca hoped to fulfil several purposes. First, it was a *probanza*, to strengthen his claim for a substantial reward. Also, he wanted to help those who would find themselves in New Granada or other colonies of Spain, facing an unfamiliar opponent in exotic terrain. To make his treaty as detailed as possible was therefore logical. This would make him in the eyes of his king an even better subject, backing his pleas even further. Finally, conquistadors in the Americas resembled a volunteer militia more than a regular organized military in that they had to supply their own materials, weapons and horses. They suffered from a lack of status, and Vargas Machuca hoped to prove to his readers that these men, including him, were worth more.

Chapter Eight: Firearms

> 'Others use iron weapons won and traded for from our Spaniards, a thing most worthy of exemplary punishment as it is almost a sort of treason, for even though they are traded to peaceful Indians with healthy intentions, harquebuses have passed into the hands of their enemies, with which they have taken many lives of our own. '[154]

The most important difference between the initial phase of conquest and the time served in New Granada by Vargas Machuca is the Indian use of firearms. In the period that separated Cortés and Quesada from Vargas Machuca, Europe had established itself in the colonies. Trade was lively between the native population and Dutch, English, Spanish and French merchants. However, the potential danger of Indians armed with harqubusiers was far less great than feared. In most cases, they remained true to their traditional way of warfare, we learn from *The Indian Militia*. Because the native way of war was so different from Europe, newcomers to the continent could benefit greatly from having a theoretical work as Vargas Machuca's book in their inventory, so he believed. Then, they had some knowledge of what was to come. Otherwise, because they had no real experience in a different kind of warfare than they were accustomed to, they would surely perish.

As we have seen in part one, one of the main differences between colonial and European warfare were the weapons used. When referencing to the situation in Europe, Vargas Machuca wrote that *'our Spaniards used great wagons of fire and projectile weapons (…) as well as harquebuses. (…) They use heavy artillery and precise musketry* (mosqueteria), *advantageous weapons; and in the forts they use walls and trenches; and to explode them with fire the enemy makes mines and those inside defend themselves by making countermines.'*[155] The notable difference between Europe and abroad is of course siege warfare. The contrast in the frequency of sieges between Europe and the colonies has already been touched upon. This explains why siege weaponry is absent in his enumeration of the weapons used in New Granada. Later, while summing up the qualities every commander should have, he wrote that one '*could be partly exempt for being inventive, due to little construction this militia has to do making fortifications for castles, mines or countermines, and other machines of war.'*[156]

Proof of the use of firearms by colonial soldiers could also be seen in the list of provisions a good commander should acquire before venturing out, for apart from the weapons themselves, '*black powder, lead and match'*[157] are also included. Vargas Machuca advised that all soldiers should be competent in the use of firearms, '*for being so doubles the number of people'*[158], the fighting strength. Soldiers ideally needed to take four reserve firearms with them. Because of their length, harquebuses are cumbersome and heavy. Vargas Machuca noted that shorter versions, '*four spans in length'*[159], less than a metre, are wielded easier, on foot and horseback, while still giving the Spaniards an

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[154] Vargas Machuca, *The Indian Militia*, 19.
[155] Ibid, 18-9.
[156] Ibid, 53.
[157] Ibid, 35.
[158] Ibid, 70.
[159] Ibid, 70.

advantage in reach as opposed to Indian dart and arrow. The specifics of the harquebuses used in Europe were different, '*having a barrel 115-40 cm long, weighing 7-9 kg, and standing 170-90 cm from but to muzzle'.*[160] This made them too heavy for the ideal type of warfare Vargas Machuca envisioned in the Spanish colonies and therefore he proposed an adjustment.

The climate was a problem for the use of firearms, so Vargas Machuca advised strongly to carry plenty of extra parts, cleaning equipment and munitions. Cloths drenched in oil wrapped around the match- or flintlocks served as protection from wetness for the embers. When dealing with the crossing of rivers, again he stressed the importance of keeping weapons and munitions dry. '(…) *If they are harquebusiers, they will wear their powder charges at their back with the harquebus lengthwise, such as the match and stock protrude above the head and the barrel hangs downward. As they are upon a log, their backs are above the water, and the matches are on their hats or the stock of their harquebus, and the gunpowder in its place.'*[161] He also explained how munitions, powder and matches could be produced in the field by bringing along lead and using natural resources as *maguey* (agave) or *cabuya* (aloe). A detailed description is included for the production of gunpowder in the field. One could obtain saltpetre *'from humid or dry niter fields and ash deposits'*, then, by mixing it with earth and water and brewing it, the remains can be mixed with one part sulphur and one part charcoal, thus creating powder.[162]

Although in itself firearms did not play a decisive role in the days of conquest, the Spanish enjoyed an advantage because of these weapons over their Indian adversaries, who lacked a similar weapon. The great days of disparity were over; the Indians in the late sixteenth century had access to firearms too. From *The Indian Militia*, an image of the Indian way of warfare is constructed that does not differ much from the conquest period. Detailed accounts of the use of firearms are covered thoroughly in *The Indian Militia*. This shows that the importance of firearms was still great in this period, that the Spanish still had the 'cutting edge' because they had, amongst other things, firearms.

Firearms play an important role in the early modern military revolution. A so-called 'infantry revolution' had changed the way of the European battlefield, giving way to the rise of the shooting soldier. But there is a difference between the situation in Europe and the one described by Vargas Machuca. He is not concerned with maximizing the efficiency of his shooters by introducing volley fire[163], because he fought an opponent who was not armed in a similar way. Also, his expeditions focussed more on guerrilla warfare than on open battles. So, the need for changing firearms tactics was absent from his mind, because of the nature of his enemy. This is a complete contrast with the situation in Europe, where firearms were regular used by both sides and thus armies changed their way of war.

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[160] Hall, *Weapons and Warfare*, 176.
[161] Vargas Machuca, *The Indian Militia*, 98.
[162] Ibid, 74-75.
[163] The tactical development that became the norm in Europe because of it's successful use by the Dutch Rebels. See Olaf van Nimwegen, *Deser landen crijchsvolk: het Staatse leger en de militaire revoluties (1588-1688)* (Amsterdam 2006), 84-88 and Geoffry Parker, 'The Limits to Revolutions in Military Affairs: Maurice of Nassau, the Battle of Nieuwpoort (1600) and the Legacy' in: *The Journal of Military History*, Vol. 27 No 2 (April 2007), 331-372, 338-341.

Chapter Nine: Horses

> 'Horses are a sort of weapon, by whose strength many victories have been won, and for our purpose they are quite good in the land where they may tread '[164]

Vargas Machuca made several references to horses in *The Indian Militia*. The benefit of cavalry for the original *conquistadores* was great and so it's not strange to see the same knowledge in the following period. '*(…) A dozen horsemen among one hundred infantrymen will be sufficient'*[165]*,* a low number similar as found with the *conquistadores* of Cortés and Quesada. But the use of horses isn't quite the same as during the conquest.

First of all, Vargas Machuca frequently wrote about situations where the soldiers do not have horses at their disposal. Apart from different tactics, this also influenced travelling, because the horse could be both used as a fast means to travel and as a carrier. The *'lack of horses'* is explained due to the difference of the nature of the warfare conducted. Vargas Machuca was not conquering land anymore like Quesada had done earlier. He was pacifying and policing Indian subjects. The control of Spain was the strongest in the heart of the colony; the more resilient subjects lived in the periphery, where Vargas Machuca led expedition after expedition. He did not fight in the highland region surrounding the city of Bogotá, where Quesada before him had enjoyed such a superior position because of his cavalry, a weapon unmatched by his Indian adversaries.[166] Most of Vargas Machuca's expeditions did not lead him to the savannah and flat land, where the horse could be of great help, but to the mountain and thick forest, where horses were not useful, '*owing to the roughness and undergrowth'.*[167] Even though horses were more of use in the first type of expedition, some were brought along during those in inhospitable regions, mostly as carriers.[168]

Enjoying so many advantages of their beasts during the conquest, the Spanish continued to use horses when Vargas Machuca fought in New Granada. Also because he sometimes got sent out on an expedition on the higher plains, Vargas Machuca included parts about cavalry in *The Indian Militia*. Cavalry had to be armoured differently than infantry, their armour *'split in front and in back, for the sake of the saddletree and so they cover the thigh, (…) wear helmets with earpieces made of cotton or bull hide, with visors of mesh to cover their faces so that they are not wounded in battle, for one cannot always guide the horse and shield oneself at the same time. Besides, an arrow flies without being seen and it is good that the face is protected, for that part is in greater danger.'*[169] While the initial fear of the Indian for the unknown animal had faded, the Spaniards still tried to make the horses as much intimidating as possible, by adding bells for instance to their harness, which should be removed at night for avoiding confusion and discovery.[170] Their strength and size made them favourable

[164] Vargas Machuca, *The Indian Militia*, 72.
[165] Ibid, 72.
[166] Ibid, 40.
[167] Ibid, 70.
[168] Ibid, 76, 90.
[169] Ibid, 72.
[170] Ibid, 105.

targets; therefore, chest, head and flank had to be armoured from the same material as the soldiers themselves.

If horses were present in an expedition, while travelling, the force should be divided in two equal squads. One consisting of cavalry, armed with lances and scythes, the other consisting of infantry armed with harquebuses. By switching them frequently between the vanguard and the rear guard, Vargas Machuca saw the ideal conditions for a safe march.[171] In the camp, the horses needed special protection because of their worth for the success of the expedition, gathered close together, kept with good grazing near the encampment, stationed near a exit point for other troops to protect them. '*During their watches the horses will be gathered by mounted soldiers, with their lances and arms, so that the Indians neither carry them away nor shoot them with arrows.'*[172]

Apart from horses, Vargas Machuca was also favourable towards man's best friend. '(…) *I would not go on an expedition without them'.*[173] Dogs had been used during the initial phase of conquest but he still saw use for them. '*They are great help when there are skirmishes (armoured, due to their love of chasing arrows) if loosed properly'.*[174] Similar to horses, dogs were outfitted with cotton armour. They also wore steel neck guards. Their ferociousness, their keen sense of smell, thus excellent as sentries and the fear of the Indians made them a valuable addition to an expedition. When selecting dogs for a journey, just as with humans, it was important to look for signs of psychical deterioration and old age. '(…) *Firing a harquebus near them, and if the dogs flee a long distance from the report, it is of no use laying a hand on them, for they will never be tamed nor be of use (…)'.*[175]

As with firearms, the first *conquistadores* enjoyed an advantage because of the horse, unparalleled by the native population. Reading *The Indian Militia* a similar strong point becomes evident. It looks like the Indians do not have incorporated the horse in their own tactics and therefore the Spaniards still have the upper hand. But, because of the nature of resistance, the role of the horse is somewhat diminished as opposed to the earlier period of conquest. The resistance against the Spanish mostly comes from peripheral regions and in New Granada, the climate and natural aspects of those regions were not in favour of the horse. For Vargas Machuca, as fond of horses and their noble stature as he may be, it meant the focus should be on infantry because they could fight where the horse could not. Also, the horse proved less handy in fighting guerrilla styled enemies than ones who fought in open battles.

Between the use of the horse and the military revolution is no connection. On the contrary, according to the military revolution, the primacy of the horse on the European battlefield was over, they lost that to firearms. This is not the case in New Granada however; there the horse was still highly useful, only to be undercut because of practical circumstances such as terrain and climate.

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171 Ibid, 89.
172 Ibid, 105.
173 Ibid, 77.
174 Ibid, 77.
175 Ibid, 79.

Chapter Ten: Steel

> 'And when they close in to fight hand-to-hand, the Indians use their clubs, an inferior arm to the sword and buckler.'[176]

According to Vargas Machuca every soldier should carry a firearm. Similar problems as those faced by the soldiers of Cortés and Quesada when firing a weapon were still common in the second half of the sixteenth century. Sudden ambushes were common and the restrictions of the firing speed of the guns made the soldiers very vulnerable, enlarged by the humidity, dampening matches and powder. Therefore, he also believed that soldiers should wear a sword as well, however awkward their movements may be. '*(…) I do not deny the encumbrance of having the sword in the belt, because of the roughness of the land, but I say that in its place should be worn half-swords, cutlasses or scimitars, machetes or long mountain knives, of three or four spans in length'.*[177] Soldiers on horseback should carry lances. '*Lances are of great help in holding back the impetus of the enemy while the harquebusiers fire'*.[178]

The fact that Vargas Machuca made a distinction between the protection of earlier times and his tenure in New Granada shows that Spanish warfare had been influenced by colonial experiences. Vargas Machuca omits the use of steel almost completely. Before his time, he wrote that Spanish soldiers used coats of mail, cuirasses as well as bucklers for protection. But now, troops wore hauberks, battle tunics, made from six pounds of cotton, or if it fell below the knee, eight pounds. *'The best are tabards of two skirts (…), with their peg buttons on the sides, or ties that overlap one skirt upon the other, so the side is not uncovered. These tunics should be wide in order to remain hollow, hindering the arrow or dart; these are more effective than others for a sharp weapon.'*[179] Luckily for the soldiers trekking through inhospitable lands, their armour could serve as their mattresses as well. This type of armour provided many advantages for the soldiers, for one being much lighter than full-plate steel counterparts, while still providing protecting against Indian projectiles as darts and arrows. The main downside was their decreased resilience in wet conditions, when the cotton became wet; the protection the armour provided was greatly lowered, because cotton soaked up water, becoming heavier in the process.

The Indians in New Granada fought with lances, '*up to thirty spans long and made of palm wood, the tips burnt, and in hardness no different from a bone.'*[180] Where the Aztecs used obsidian, used to harden weapons, the Colombian soil did not produce this kind of volcanic glass. Vargas Machuca did mention the use of obsidian knives in New Granada, imported from the north, but not on a wide scale.[181] Other than that, their hand-to-hand weaponry was made up of cudgels of palm wood, which resembled great swords. '*Their arms are the most ordinary, arrow and sling, lance and dart, buckler and club. They use venom on the arrows. This they make by placing into a large bowl or pot all the poisonous vermin and*

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[176] Vargas Machuca, *The Indian Militia*, 95.
[177] Ibid, 70.
[178] Ibid, 108.
[179] Ibid, 71.
[180] Ibid, 19.
[181] Ibid, 211-2.

other venoms, principally viper venom; and mixing them all together and covering them, they battle each one therein until they die and are left to rot and placed to cook over a fire in the same bowl, adding the milk of the thorny ceiba *tree as well as blood from the menstruation of the women. This herb venom is made by the very oldest women, because upon finishing it, they die at once, because of the strength of its poisonous smoke.'*[182] His account on the matter of venom has to be somewhat exaggerated, but nonetheless in essence true; the Spanish *conquistadores* had problems effectively dealing with the use of venom by their enemies. Because of natural circumstances, venom wasn't abundant in European flora and fauna and therefore uncommon in European warfare, as opposed to the Middle East and Asia, geographical different regions that had access to lethal herbs and such. Vargas Machuca also showed the same interest for new kind of flora that earlier writers as Franciso Brava and Agustin Farfan had for the New World.[183]

On the topic of armour, Vargas Machuca did give a different description than found in the Mexican regions. The Indian dress for war with feathers matches the information given by Cortés but according to Vargas Machuca, the Indians in New Granada fought without armour. '*They go out to their wars naked, the face and body highly painted to appear more ferocious. (…) They wear the paws of lions and tigers on the head, and from around the waist hang the tails of these animals.'*[184] Here he makes the classical mistake of early modern authors writing on the subject of the fauna of the Americas. Lions and tigers actually hail from Africa and Asia and didn't live in the areas travelled by Vargas Machuca, while puma's and cougars did. Because the similarity of these felines, more authors have made the same mistake.[185]

Just as firearms and horses, steel gave the *conquistadores* an advantage, because the Indians lacked a similar weapon. Strangely enough, one would think that trade had given the Indians access to European weapons. Vargas Machuca on the subject of firearms confirms this. He does not write anything about steel directly. From his remarks about the weaponry of the Indians nevertheless, it is possible to see that the still fought in a very traditional way, with mostly wood based weapons, with added venom for lethality. Because of their passive stance incorporating steel weapons, the Spanish had no need changing either their weapons or their armour.

Between the use of steel and the military revolution is no connection. On the contrary, according to the military revolution, firearms replaced steel as the lead in the theatre of war on the European battlefield. Practical issues such as climate and shortage of munitions prevented similar development on the outskirts of the Spanish Empire such as New Granada, so there steel weapons remained highly valued in the fight against the Indians.

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[182] Ibid, 178.

[183] Bravo and Farfan, were both physicians who each published a medical treatise on the New World, that included a lengthy part about venom and cures. Bravo was published in 1570, Farfan nine years later. See, Saul Jarcho, 'Medicine in sixteenth century New Spain as illustrated by the writings of Bravo, Farfan and Vargas Machuca' in: *Bulletin of the History of Medicine*, Vol. 31 (1957), 425-441.

[184] Vargas Machuca, *The Indian Militia*, 20. He later mentions the use of feathers and skin of tigers, 175 and even included the tiger in his chapter about 'Domestic and Wild Animals of the Indies', 195.

[185] See Diaz del Castillo, *The conquest of New Spain,* 98. Del Castillo also mentions lions and tigers. In the writings about the conquests of his predecessor Quesada are also numerous references to tigers. Cunninghame Graham, *The Conquest of New Granada*, 24 and 46.

Chapter Eleven: Ships

Although Vargas Machuca started his career aboard protecting the king's interest against pirates such as Francis Drake and the first two expeditions he led in New Granada were directed against the Carare tribe, who operated in the lower Magdalena River basin, *The Indian Militia* hardly contains references to naval matters. The task of a militia commander was to put down native resistance and in order to do so effectively, they had to be hurt where they lived. So, Vargas Machuca preferable marched over land, searching for villages.

When Quesada started the conquest of New Granada, he worked his way upstream from the coast to the plains and during his trek, naval support was essential for his success. This was not the case for Vargas Machuca, who set out from already consolidated areas of the colony, where he could prepare his troops and supplies, before they were sent out to the periphery.

Twice, *The Indian Militia* deals with traversing water. The first time Vargas Machuca warned the reader of following Indians who traverse with canoes and rafts, who have much more experience travelling this way and are probably setting up ambushes on the riverbanks.[186] The second time he explained how canoes or rafts should be built in the field, if possible, with local help, for they are more experienced.[187]

While the role of ships for the initial phase of conquest was unquestionably important and essential in terms of the supplies of food, munitions and other things, ships are almost absent from *The Indian Militia*. We see a similar cause as with the deployment of horses, that the nature of Vargas Machuca's expeditions brought him into terrain where the use of ships was out of the question. Also, several of his expeditions were meant for the capture or punishment of Indians. The chance for encountering these Indians or their dwellings was much higher travelling by foot than by water.

Naval developments do not play a role in the concept of a military revolution. The role of ships as one of the causes of Spanish success in the New World was not a military role. Therefore it is pointless to try to connect Vargas Machuca's experiences with the military revolution in this matter.

[186] Vargas Machuca, *The Indian Militia*, 93.
[187] Ibid, 99.

Chapter Twelve: Infantry tactics

> 'Experience has shown us in these places that with proper order, twelve soldiers have beaten and scattered a squad of two thousand Indians; and because of disorganisation, fewer than thirty Indians have routed seventy Spaniards, killing and carrying of several in their hands.'[188]

Native warfare as encountered by *conquistadores* as Cortés and Quesada was very different than what they were accustomed to, warfare as it was conducted in Europe. This led to a change in tactics. That Europeans continued to change their way of war is even more evident in *The Indian Militia.* Vargas Machuca was not the same type of *conquistador* as the men of the first half of the sixteenth century; he had more a pacifying or policing role than a conquering one. The nature of his position and the campaigns he thus led, is the main reason for his stance on tactics. Called by Parker '*the first manual of guerrilla warfare*', Vargas Machuca '*dismissed as irrelevant the entire pattern of European warfare, with its hierarchical units, linear formations and permanent garrisons. Instead he advocated for the Americas the creation of commando groups to carry out search-and-destroy missions deep within enemy territory for up to two years at a time*'.[189] I disagree with Parkers statement that Vargas Machuca found the European warfare irrelevant; the type of warfare he advocates is a combination between traditional elements, such as the role of cavalry and non-traditional ways of combatting an enemy who fought in a different way, in a different climate and type of terrain than what was experienced in Europe.

Similar as with his predecessors, the numbers of soldiers involved with warfare are much lower than in Europe. Vargas Machuca mentioned that fifty soldiers are worth the same as two hundred in Italy, in other words, he thougt that the ration between European and American conflicts should be 4:1.[190] Not only the nature of his function brought him to this much lower number, also practical circumstances and the essence native resistance are involved. Finding the right amount of soldiers was much easier in Europe than in the colonies and the costs of soldiers was much higher[191]. His opponents, although skilled, could be defeated with a relative low number because the Spanish had firearms, steel and horses at their disposal, a lethal combination to which the Indians only could use guerrilla warfare. That results in tactics that rely heavily on ambushes.

The fondness of ambushes that had given Cortés quite some hardship when he was fighting in Mexico also plagued the Spanish who were trying to consolidate their king's empire in New Granada. '*All of their fights are founded upon betrayals (…). Confident in the strength of their people and in the appropriateness of the site, they will enter the open field, having scouted and prepared an escape*.'[192] For the chivalric commander of the Spanish troops, this was strange behaviour. But, apart from a logical way to defeat a better-equipped opponent, Vargas Machuca had another explanation at hand: '*they are all a leaderless and disorderly people,*

[188] Vargas Machuca, *The Indian Militia*, 97.
[189] Parker, *The Military Revolution, 120.*
[190] Vargas Machuca, *The Indian Militia*, 56.
[191] Ibid, 47.
[192] Ibid, 21.

with neither a sense of merit nor valor.[193] *And on top of that, they had 'no virtue whatsoever'*.[194]

Throughout *The Indian Militia*, he warned the reader of several types of ambushes and night attacks. Most of the expeditions were led into hostile areas in the periphery, where the chances of these attacks were high. A group of soldiers, with their baggage, was a logical target for the native population, who knew no good would probably come from the Spanish presence in their area. So, protection was important. *'(…) The commander has a duty to go in the vanguard upon entering it; and upon leaving, in the rear guard, for the greatest danger is always found there.'*[195] Sentinels and scouts should protect the convoy, while the Indian porters, if there were no horses included, should be divided and kept apart for fear of mutiny. He continued to give advice on several other matters important while marching, such as keeping lighted matches ready, being silent, maintaining order and how to discover marks of 'Indian roads', such as flattened rocks in the river.

But this could not fully avert danger. '*One of the most harmful things that I notice in war and which should be most be feared are ambushes, for with all the care that a captain may have, if he is taken by one, they will always cause him harm.'*[196] The Indians made use of the terrain, so Vargas Machuca warned his readers in multiple chapters for ambushes in ravines, rivers, around fields of crops, close to villages, in villages, on top of hillsides, marshes or scrublands that could be set on fire, dense forests, swamps; virtually everywhere an opponent could be hid. Careful reconnaissance, travelling if possible on higher grounds, keeping dogs and loyal Indian porters close, should be ample protection in order to avoid too much damage from ambushes. And, a surprise attack could also be recognized by a keen sense of smell, '*the odour of the paint the Indians spread upon themselves, for it smells bad. Also by the odour of the maize porridge or* chichi *they drink (…).'*[197] Vargas Machuca had an ambiguous stance towards both ambushes and night attacks, one the hand he condemns the Indians for being so treacherous, on the other hand he doesn't mind the Spanish use of these tactics if it will bring them closer to their goal.

Apart from ambushes, the native population frequently made use of traps as well. There was the '*Indian trap of spike'*[198], razor-sharp spikes protruding in the undergrowth or even in river crossings, sometimes poisoned, weight activated traps on roads that brought down logs[199] or boulders[200].

The longest single passage of his work is about the preparation of medicine and their application, in order to cure the soldiers from sickness and wounds that result underway. Apart from common colds, bloody excrements, inflammations, bite and sting of animals, the part about treating venom stands out.[201] Even more interesting, he only fleetingly mentioned the treatment of wounds caused by battle. Two arguments for this notable lack seem the most evident. The first is that the Spanish rarely suffered wounds in battle, because of

[193] Ibid, 23.
[194] Ibid, 180.
[195] Ibid, 88.
[196] Ibid, 116-7.
[197] Ibid, 124.
[198] Ibid, 39.
[199] Ibid, 92.
[200] Ibid, 94.
[201] Ibid, 61.

their armour or because of the soldiers of Vargas Machuca seldom fought battles, because of their punitive expeditionary tasks. The latter reason appears unlikely, Indians probably tried to avoid a battle for as long as possible, relying on their superior knowledge of surviving in the terrain and hurting their opponent via ambushes. But in the end, Vargas Machuca himself led six expeditions, of which four were a huge success.[202] This leads me to the second argument. Vargas Machuca hoped that the readers of his book were amongst the trained noblemen and upper class soldiers, who would travel to New Granada or other parts of Latin America. These men already, preferably, had experience of warfare and because of the nature of battle-inflicted wounds were similar to those of Europe; the stab wound created by a steel sword or an obsidian broadsword was maybe greater, but the fundamental damage it did to specific body parts was similar. Vargas Machuca omitted what he believed to be common knowledge. Instead, he found passages of '*twenty four hour venom'*[203] that killed a man in less than a day or the despicable Indian practice of leaving poisoned food behind while abandoning their villages[204] more helpful.

Crude hand-to-hand weapons, supported by simple projectiles such as arrows and darts were the norm of Indian warfare. Although the Indians in New Granada had easier access to firearms, the account of Vargas Machuca primarily sees contact with Indians who kept to their traditional ways of war. He believed that the tactics developed by the *conquistadores* in the earlier part of the sixteenth century thus were still highly efficient. Soldiers carrying firearms for the initial phase of battle, supported by Spanish steel and armour should be more than enough. '*On level ground, those on horseback will enter first, the horses with their bells, which will break out first; and afterward, the infantry in squads with their shield bearers at the fore. And if the enemy is armed with lances, the harquebuses will fire first from a wing formation, with their shield bearers and lancers forward. The cavalry should not attack until the enemy is somewhat routed, unless our men need to. On rough land the squads will also be used as offense in all places.'*[205]

Their opponents are also divided in squads, fighting in a semicircle, trying to encircle their enemies. But, '*they keep formation only at the outset or until the battle is joined, for they later turn about and fight with no order'.*[206] This fits the description of Indian tactics used against Cortés and Quesada, where Spanish discipline was much better and in most battles decisive. Lances and shields placed at the front, protecting those who fired darts and stones. The bowmen stood apart, '*his war club hanging at his back and his quiver at his side, and while firing their arrows, they close in with their clubs if they have the opportunity*'.[207]

The Indians fought by Vargas Machuca were different from those fought by Cortés and Quesada. There was almost half a century between these three men, but Vargas Machuca was not conquering a tribe of Indians, he was policing them. That means that the tactics he proposed in *The Indian Militia* are most suitable

[202] Ibid, xlv.
[203] Ibid, 52.
[204] Ibid, 67.
[205] Ibid, 128.
[206] Ibid, 131.
[207] Ibid, 130.

for situations, where the opponents had to be detected first, instead of seeking out an open battle. Thus, when Vargas Machuca wrote about proposed tactics for defeating Indians, in general they are about ambushes, marching through inhospitable lands and dealing with injuries. When he did inform his readers about an actual battle, the suggested tactics show no difference from those of the early days of conquest. This seems logical because Indians in general fought the same way, clinging to a native way of war, despite the possibility to procure European weapons.

Despite scale, the low numbers of soldiers seen during the early days of conquest is reflected in *The Indian Militia*. This of course has to do with the expeditions that were not efficient to execute travelling with an enormous amount of soldiers through the jungle. A small strike force could more easily infiltrate an area in order to complete their mission. Professionalization of the Spaniards, a strong point, was still one of their strengths. The background of the men travelling abroad further enhances this. Quesada started a career in law, while Vargas Machuca already had experience in warfare before he made his journey overseas. This is the only real valid point of the military revolution theory that holds up in the New World; professionalization was a definite cause of European success.

The connection of these infantry tactics with the military revolution is not very clear in the case of warfare in New Granada. In Europe, we see a growing number of soldiers, trained in firearms, taking each other out on massive scales, with equally high numbers of casualties. Because of Vargas Machuca's position, in New Granada, we see small groups of soldiers, trained in the use of firearms but still devoting time and strength to hand-to-hand combat, taking out an opponent who is not trained and armed in the same way. This final point, next to Vargas Machuca's position, is the most important reason why the Spanish, at least not in the New Granada, did not export the experiences of military innovation in Europe, the military revolution overseas.

Conclusion of part two

While assessing the roles of firearms, horses, steel, infantry tactics and ships, for the initial phase of the conquest it has become clear that none of these elements of early modern warfare was in itself decisive, that the Spanish were victorious because of all these five elements combined. An incredibly similar result comes from studying the same five elements in New Granada almost fifty years later. One would think the image of Spanish warfare constructed with *The Indian Militia* by Vargas Machuca would be different from the time of Cortés and Quesada. The nature of Vargas Machuca's work as opposed to earlier *conquistadores* is the main cause for differences.

But although Vargas Machuca reported that firearms made their way to the hands of the Indians, that he was not conquering but more policing, that he could not utilize the strength of the horse to its full extent during his travels through rough terrain, the resistance he encountered remained similar to that of his predecessors in the first half of the sixteenth century. And therefore, the Spaniards had little need to change their tactics. According to Black, military practice comes from 'best practice'. Although this is not always true[208], in New Granada, reading *The Indian Militia,* this seemed to be the case.

Why would the Spaniards change the way they had fought – and won- for the past fifty years, because in Europe innovative changes transformed the battlefield? Innovation did take place in the New World, but because of the different nature of warfare; the nature of innovation was different as well. Vargas Machuca made this clear. '*And so it remains proven that they are defended only by their inventions of arms and instinct, and that our Spaniards also will have adapted to the same land and to that which its nature demands, and for this purpose they will have made new discourse and new practices, setting aside those of Italy for the most part, not for lacking them (…), but as they are not completely advisable for use against those nations in their conquests, they are not addressed.'* Here, a 'veteran' of the Italian Wars, unquestionably states that warfare in New Granada is different from that in Europe, that 'new discourse and new practices' were the key to success in the fight against the native population of Spain's colonies. European 'best practice' clearly wasn't the same as New World 'best practice'.

[208] Hall, *Weapons and Warfare*, 130.

Part Three
Spanish warfare in the Low Countries
1581 - 1595

Chapter Thirteen:
Voor God en mijn Koning by Francisco Verdugo

> 'Mijn eer wordt aangetast door lieden die mij belasteren. Ze zeggen dat het mijn schuld is dat Friesland voor de koning verloren is gegaan en dat ik geld achterover heb gedrukt. (…) Toegegeven, er zijn dingen fout gegaan. Maar dat ligt niet aan mij. Het komt doordat ik niet de hulp kreeg die ik nodig had en die mij was toegezegd, door rechtstreekse tegenwerking en door overmacht.'[209]

In roughly the same period as Vargas Machuca was rooting out Indian resistance, another petty nobleman found himself in a similar position. He did not resort to the crude tactics though, but tragic *hidalgo* Franciso Verdugo (b. 1537 – 1595) also fought with rebels at the periphery of the Spanish Empire. He too had structural money problems and died virtually unrewarded. Because of the similarities between these two men, a valid comparison can be made. Apart from that, Verdugo fought in Europe, the breeding ground of the military revolution. This should add an interesting look towards the global effect of military innovation. Before a state can export military innovation abroad, to the areas of New Granada for instance, first they have to be mastered at home, in Europe. The Spanish troops in the Low Countries found themselves pitted against the brilliance of Maurice of Orange, whose role as military innovator is highly valued. By studying a similar work as *The Indian Militia*, with Spanish warfare in the Low Countries as the focal point, I hope to assess whether the innovation brought forward by the military revolution actually took place on the battlefield.

Verdugo was the last governor of the northern parts of the Low Countries when it was still part of the realm of Spain, the Dutch provinces of Groningen, Friesland, Drenthe, Overijssel, and Lingen in Germany. Due to the loss of the important city of Groningen, Verdugo lost his function. In order to justify his role he wrote a book that can be seen as a *probanza* as well.[210]

In 1557 Verdugo acquired his first taste of warfare in the royal Spanish armies in France. From there he rose to the ranks of page of Count Peter Ernst van Mansfeld (b. 1517 – 1604), where he made a positive impression. The tumultuous year of 1566 led to Verdugo's enlistment in the army again, where he served in the position of captain. The young soldier rose through the ranks, eventually becoming admiral of the Spanish fleet in Holland and during the siege of Haarlem, Verdugo was responsible for the organisation of the entire effort, which was brought to a successful end on the twelfth of July 1573. For his efforts, Verdugo was promoted governor of the reclaimed city. Due to financial troubles, the triumph of the Spanish armies waned after Haarlem and the rebels booked their first actual success in October of that year when the Spanish siege of Alkmaar was broken.

In the period following 1573, Verdugo filled several positions in the Spanish army, where he, because of his successes, knowledge and experience, was held in high regard. In 1580 Groningen choose the side of Philip II, which

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[209] Verdugo, *Voor God en mijn koning*, 40.

[210] *Commentario del coronel Francisco Verdugo de la guerra de Frisa en XIIII Años que fue governador y capitan general de aquel estado y exercito por el rey D. Phelippe II, nuestro señor*, from here on abbreviated to Commentario or in the Dutch translation, Voor *God en mijn koning*.

prompted the Dutch rebels to besiege the city. The governor of the Spanish Netherlands, the Duke of Parma, Alexander Farnese (b. 1545 –1592) sent Verdugo north in order to support the defected city, where he became acting governor very quickly. This was the start of the campaign Verdugo wrote his *Commentario* about.

The fighting in the northern provinces of the Low Countries centred on sieges of strategic cities as Zutphen and Deventer, that could be used to launch attacks westward, to Holland, the hart of the rebellion. The cities also could be used to control the IJssel and the entrenchments near its banks. Sieges were costly, both in resources and the amount of troops required and time consuming. The climate wasn't in favour of lengthy operations, campaigning had to be over before the autumn rains and winter cold made travelling and fighting nearly impossible. Money restrictions were the cause of the process of disbanding an army at the end of the season to lower the cost of feeding and garrisoning men during the autumn and winter, but it also meant each spring the time-consuming recruiting process had to be repeated.

This type of warfare wasn't an advantage for the Spanish, Verdugo was in a very tight spot; the financial situation was dire so in order to successfully end his tenure, a quick victory was needed. But the rebels weren't tempted to engage the Spanish army in a pitched battle[211], so the campaign dragged on, with the additional financial and troop shortages. He also struggled with the local rulers, who shared his feelings of distrust. To make matter worse, in 1590, Philip II decided to shift his focus towards protestant uprisings in France, and deduced the amount of forces in the Netherlands, thus further reducing Verdugo's strength. *De magistraat klaagde dat de gestuurde hulp onvoldoende was om tot een aanvalsoorlog over te kunnen gaan, en dat de defensieve strategie geen steek hielp, maar zou uitdraaien op een volledige ondergang.*[212] In other words, even for a competent soldier as Verdugo, the support he was given by his king was too small to reach his goal, to recapture and consolidate the northern parts of the Low Countries. His main disadvantage was that his enemy had sufficient funds. '*Wat ze aan moed en krijgskunde tekort kwamen wisten de Staatsen echter te compenseren met listen, technische kunstgrepen en veel geld.'*[213]

The Dutch rebels had a very competent military leader in the figure of William Louis of Nassau-Dillenburg (b. 1560– 1620), the stadtholder of Friesland, Groningen, and Drenthe. His cousin, the Prince of Orange, Maurice of Nassau, (b. 1567 – 1625) was stadtholder of the rest of the United Provinces of the Netherlands from 1585. William Louis' main target was reclaiming Groningen and his army underwent the exact opposite of Verdugo's, despite desertions, it continued to grow until it was strong enough to successfully besiege Groningen in the early summer of 1594. Verdugo could do nothing to thwart the Dutch troops, because promised auxiliary troops never arrived. His tenure ended in failure and he unexpectedly, passed away a year later.

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211 *'Zelfs de vijand weigerde mee te werken, want die wilde zich niet netjes in een veldslag laten verslaan.'* Ibid, 40.
212 Ibid, 247.
213 Ibid, 55.

Both the nature of the conflict and of Verdugo *Commentario* makes it unrealistic to use the same subdivision as used in the previous chapters. On steel, Verdugo's report does not contain any useful comments[214], while on the subject of horses; one can do with a general summery of the use of the horse in the campaigns of the north. Warfare in the Low Countries mainly focussed itself on sieges and therefore I included a chapter about siege warfare. The chapter on firearms is broadened to troops, as to include the cavalry, while the structure of the chapters on ships and infantry tactics remains unchanged.

[214] The use of steel weapons was commonly spread throughout Europe. Both Verdugo's troops and his Dutch opponents used this type of weapons on a large scale, so technological superiority was out of the question. Apart from that, the use of steel was so common; for Verdugo there was no need to address it.

Chapter Fourteen: Troops

> 'Ik zag dat Annibale Gonzaga en Georges Cressia en hun compagnieën de vijand op een verkeerde manier hadden aangevallen: zonder de nodige orde en via moeilijke passages. Het gevolg was dat Cressia sneuvelde en Annibale Gonzaga – die geen helm droeg- een grote steekwond in de hals kreeg'.[215]

One of the reasons contributing to Spanish success in the conquest of New Spain and New Granada was the discipline of the Spanish troops. Verdugo's remark on the mistakes of his subordinates shows that discipline was still highly valued in the royal armies. Being a Spaniard himself, he preferred Spanish or Italian soldiers. Scottish, English, Irish or Burgundian soldiers were of average quality, while the French only were useful in the initial phases of a campaign. Together with their counterparts from Wallonia, they were seen as less trustworthy, with the Germans even below them.[216] The Spanish were raised above suspicion, according to Verdugo.

His army in the Low Countries was made up of several nationalities. More interesting is their function. The regiment Verdugo took with him up north consisted solely of harquebusiers, following the command of the duke of Parma. Realising he had a need for cavalry as well, Verdugo hired them too.[217] During his years in the north, the combination of infantry both armed with firearms and hand-to-hand weaponry, supported by cavalry, was the norm in Verdugo's army. For example, the relief army he commanded in the siege of Zutphen consisted of cavalry, harquebusiers, mounted lancers and two pieces of small field artillery[218] while in the three battles he fought, those of Amerongen, Noordhorn and Lochem, he again used the same combination of troops.[219]

Sadly, using his *Commentario* it isn't possible to ascertain the ratio between soldiers armed with firearms and hand-to-hand weapons, because he did not go into details. Sometimes, Verdugo mentions his troops according to classification, such as company or regiment but in general he remained vague about specific numbers and such.

Verdugo did make some interesting remarks about the role of cavalry and artillery. He highly valued cavalry, seeing their role as pivotal on the battlefield. His opinion was reflected by the easy way the Spanish retake the village of Meppen, in November 1587. The cavalry of the Dutch rebels had left the town, sparking the infantry almost immediately to open negotiations for surrender. They didn't feel like fighting anymore, believing their odds to be downright disastrous.[220]

The money problems Verdugo continued to have during his entire campaign greatly hindered the Spanish war effort. When Verdugo needed to discharge troops, in most cases, it was the infantry who got reduced, not the

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[215] Verdugo, *Voor God en mijn Koning*, 174.
[216] Ibid, 55-6.
[217] Ibid, 99.
[218] Ibid, 150.
[219] The role of the Spanish army in these three battles is treated in chapter seventeen.
[220] Ibid, 181.

more expensive cavalry.[221] Even in the light of his scarce funds, Verdugo held true to his beliefs that cavalry should not be absent from the battlefield. They were even more useful on raids, enforcing the local population to pay contributions to the Spanish army.[222]

Cannon fire proved to be very dangerous to the besieged. Soldiers operating as artillerymen had a difficult task with loading, aiming and firing cumbersome weapons. Verdugo saw their worth and therefore concluded '(…) *dat artilleristen lieden zijn die goed behandeld willen worden als men er voordeel van hebben wil*'. [223] And of course, apart from a certain attitude against these soldiers, there also should be substantial pay.

The *Commentario* does not contain references to drill or counter march, made famous by the Dutch in the end of the sixteenth century. But apart from Verdugo's insistence on having both with firearms and hand-to-hand armed soldiers, in his work there is a tendency of conflict revolving around firearms. This fits the general theory of military revolution, where firearms acquired primacy on the battlefield.

Verdugo's doesn't actually refer to the strength of his opponent much, but in the final year of his tenure in the north, the States army had over twelve thousand infantry and two thousand cavalry. Verdugo had only thirty-five hundred infantry and fewer horsemen than his opponent. Even worse, over a third of his paper strength was unable to fight because of sickness or because they belonged to the officer corps.[224] Although the growth of armies, which is a part of the military revolution, really starts later than the sixteenth century, in the final days of his function when the fight for Groningen reached the climax, the army growth parallels the developments of the military revolution. That Verdugo could not develop his army the same way had of course to do with his weak financial position.

Apart from size, Verdugo commented on the professionalization of the Spanish army in *Commentario*, while at the same time looking down on soldiers from other nationalities than Spanish or Italians. Because he lacked soldiers, money and strong support from his superiors – who did not favour the northern parts of the Spanish Empire - Maurice and the Dutch rebels could book spectacular successes. The traditional view of military innovation and success of the Dutch because of those innovations thus somewhat seems exaggerated.

[221] Ibid, 102.
[222] Ibid, 160.
[223] Ibid, 249.
[224] Ibid, 263.

Chapter Fifteen: Sieges

> 'By 1544, fifteen strongholds along the border of the Netherlands had been provided with new-style fortifications, and were defended by 1,012 artillery pieces. (…) Between 1529 and 1572, some 43 kilometres of modern defences had been built in the Netherlands: 4 citadels, 12 entirely new circuits of walls, and 18 substantially new circuits, at a total cost of about 10 million florins. By 1648, when the Low Countries Wars' ended, only a handful of major settlements remained without bastions.'[225]

> '(…) Merkte ik op dat je een stad eigenlijk binnen vierentwintig uur volledig moet omsingelen en innemen. Als dat niet lukt, wordt het moeilijk zich meester te maken van een stad, zeker wanneer haar partijgenoten bereid zijn haar te hulp te komen en de strijdkrachten daarbinnen haar wensen te verdedigen.'[226]

The concept on an early modern military revolution rests, according to several historians like Guilmartin[227], on two pillars, an 'infantry' and 'artillery revolution'. The latter is the development of the *trace italienne* system. The development of these kinds of fortifications started as early as circa 1450 in Italy, and took roughly eighty years to complete in the Italian peninsula.[228] This matches the timing of the construction work done in the Low Countries, according to Parker. The image of a land where an '*angle bastion, a pointed "solid platform thrust forward to obtain as wide a field of fire as possible while retaining the tower's role of providing flank cover to the adjacent parts of a fortification"*'[229] could be found almost everywhere, can also be traced back to Verdugo's *Commentario*. When one studies the illustrations the translator added to his work, the star shaped bastion repeatedly can easily be discerned in places as Zutphen, Groningen, Deventer, Delfzijl, Arnhem, Steenwijk and Coevorden[230] although some cities valued their money more than their protection and refrained from constructing new and expensive fortifications, such as Lochem, Grave, Bonn and Nijmegen[231]. The besieging on a city or entrenchment was a common part of Verdugo's campaign but most of these operations ended in success for the besiegers, either Spanish or Dutch, by bombarding their opponent into submission.

When you look at the list of cities being bombarded into surrender, some of them also appeared on the list of illustrations of cities without *trace italienne* such as Grave[232], which is logical. The new style of fortification proved a better defence against besiegers. Other bombarded cities usually are smaller cities or villages, for which the construction of several bastions and new walls was too expensive, like Neuss[233], Ootmarsen[234] and Wedde[235]. Doesburg befell the same

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225 Parker, *The Military Revolution, 12.*
226 Verdugo, *Voor God en mijn koning*, 186.
227 See: Guilmartin jr., 'The Military Revolution', 304-7.
228 Hall, *Weapons and Warfare*, 162.
229 Mahinder Kingra, 'The *Trace Italienne* and the Military Revolution during the Eighty Years War, 1567 – 1648' *in: The Journal Of Military History* Vol. 57, No. 3 (July 1993), 431-46, 432-3.
230 See the illustration in Verdugo*, Voor God en mijn koning*, 136 and 209, 193, 202, 211, 218, 229, 234
231 See the illustration in Verdugo, *Voor God en mijn koning*, 118, 167, 182 and 187, 218
232 Ibid, 167.
233 Ibid, 167.

fate, but here Verdugo offered an explanation, '(…) *omdat zij geen aarden wallen maar een stenen muur had, viel het hem makkelijk een bres te maken.'*[236]

Earthen walls were essential in the defence against a siege; they could withstand cannon fire much better than walls made out of stone. According to Verdugo, the success of a siege lay in the strength of the artillery.[237] The previous list of cities that fell to the strength of cannons is expanded if castles and entrenchments are also included. Verdugo commented on the Castle of Werth[238] and an entrenchment near Reide[239] that both fell because of cannon fire. An opposite situation also occurred, the siege of castle Hackfort failed because there wasn't artillery brought along, but the second time the troops were better prepared and did manage to shoot their opponent into submission.[240] And of course, sometimes the Spanish were lucky, such as in the case of Deventer, which fell because of betrayal.[241]

'*Normally, the capture of a stronghold defended by the* trace italienne *required months, if not years, and a chain of siege works had to be built and manned until either the defenders were starved out, or trenches were advanced near enough to the walls to permit close range bombardment and an assault, or else tunnels were excavated under a bastion where gunpowder mines could be planted.*[242] Here, Parker addresses an issue not really found in Verdugo's report. The bigger cities who were besieged, the remark that a siege 'required months, if not years', is not really true in the case of the campaigns in the north of the Low Countries. Verdugo's troops participated in a number of 'big' sieges, Zutphen, Steenwijk, Bonn, Deventer, Coevorden and Groningen. Of these cities, only Bonn was not fortified with the latest developments, the other ones were. But when you look at the length of each siege, they are relatively short, the longest ones being Groningen and Coevorden, both circa eight weeks.

Apart from the length, the image of sieges Verdugo put forward generally fits Parkers description. After the royal army had taken Zutphen on the twenty-first of September 1583 by a clever ruse[243], the next campaign season the Dutch rebels besieged the city and the surrounding entrenchments by undermining them, made possible by the dry state of the ground at the time. Although they do not succeed in retaking the city, an entrenchment did fell as a result from this tactic. [244] The fortified city of Steenwijk withstood a twelve-hour lasting bombardment from sixty-two cannons, but had to finally give in because of a combination of underground corridors, two wheeled attack towers, thirty meters high and a final assault from three sides, which lasted for ten hours.[245] Bonn, which did not had *trace italienne*, was strong enough to withstand attacks and digging measurements, but had to surrender after two months because of scarcity of food and munitions.[246] Zutphen finally fell back into the hands of the

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[234] Ibid, 232.
[235] Ibid, 252.
[236] Ibid, 168.
[237] Ibid, 132
[238] Ibid, 115.
[239] Ibid, 100-1.
[240] Ibid, 153.
[241] Ibid, 177.
[242] Parker, *The Military Revolution, 13.*
[243] Verdugo, *Voor God en mijn koning*, 138.
[244] Ibid, 148.
[245] Ibid, 227
[246] Ibid, 188.

Dutch on May 30 1591, as well Deventer on June 10. Both surrender after initial shootings, fearing even more damage and no sign of relief.

The two final sieges took place near the end of Verdugo's tenure. The Dutch besieged Coevorden in the summer of 1592, starting on the twenty-fifth or twenty-sixth of July and ending the siege with success on the twelfth of September 1592. The earthen wall of the city was strong enough to withstand the artillery bombardment, but the determined Dutch troops continued the siege with all means necessary, the moat was drained and mined, two raised infantry platforms were built and several attempts were made to secretly enter the city. Verdugo held out as long as he could, being promised a substantial relief army. When this turned out not to be the case, he had to flee and the city finally surrendered. The bulwark of Groningen was a troublesome city for Verdugo. Although he officially governed on behalf of the Spanish king, the city council repeatedly hindered him while he tried to perform his duty. The Spanish base was not as strong as he had hoped. That's why, when Maurice started the second siege of Groningen on the twenty-second of May, Verdugo was afraid the people would betray him and defect. Maurice tried to undermine the walls and only targeted the defensive structures, hoping to sway the delicate public opinion in his favour. Although a contingent of Verdugo's soldiers managed to enter the city and keep the inhabitants who were prone to surrender the city, from doing so, the city eventually surrendered on July 23 1594.[247]

On the subject of sieges, the role of the military revolution is most apparent. The 'artillery revolution' was the cause of a new type of fortification; *trace italienne* that quickly spread through Europe and by looking at Parkers quotation was to be frequently found in the Low Countries. This is also evident in the illustrations that appear in the translation of Verdugo's *Commentario*. During his years as army captain, sieges were quite common and as becomes clear in this chapter, cities that were fortified with *trace italienne* were indeed harder to bombard into submission. The besiegers were then left to other tactics, such as digging mines. The technical improvements of the artillery that make up the 'artillery revolution' also are manifest during Verdugo's tenure. Frequently he commented on cities or castles surrendering from the result of a – potential – bombardment.

[247] Ibid, 268.

Chapter Sixteen: Ships

> 'Het was mijn bedoeling om per schip – via gaten in de dijken – Reide ter hulp te komen, want de graaf had zijn geschut reeds opgesteld en de schansen waren er niet op berekend een bombardement te doorstaan.'[248]

Verdugo's *Commentario* contains only some minor references towards the use of ships but a general conclusion can be easily made from his writings. The citation is dated in December 1588, when several strong and hard rainstorms hit the Low Countries, causing dikes to collapse and hinterland to flood. Rainstorms were not uncommon during Verdugo's tenure and a returning image from his book is the disastrous state of the infrastructure in the Low Countries when it rained. There are a lot of wetlands in the northern parts of the Low Countries, mostly in Friesland, that were unable to sustain marches by big amounts of soldiers. When it rained, these areas were off-limits to soldiers, even horsemen.[249] Heavy frost was helpful in accessing these parts again[250] but only for short expeditions and raids, because cold and shortage of food made longer outings too hard on the soldiers. The campaigning season was during spring and summer, although Verdugo mentioned that September 1593 was too wet for the summer campaign and too early for the frost.[251] Apart from obstructing movement, conducting sieges was even more difficult in the wet climate. Artillery was more difficult to move, and digging was out of the question.[252]

Luckily, the countless canals and rivers were an excellent means to travel by ship. Several times Verdugo wrote that ships were the transport method of choice. They were the fastest way to get around with a substantial number of soldiers[253] and could therefore travel between entrenchments, usually built close to water, quickly, so supporting them or troops was easy[254]. A practical problem occurred however; there should of course be water present, deep and wide enough for ships to travel. Apart from that, both the Spanish and Dutch saw the importance of travelling over water and made ships a target of their attacks. Verdugo recalled the ships he had sent to Cologne were the targets of a Dutch attack[255] and mentioned twice he himself had fired on military vessels and supply ships traversing the Rhine river.[256]

Apart from the numerous waterways in the northern parts of the Low Countries, the rain made travel or supplying by boat preferable. Although boats became targets of war, a massive naval addition to the Dutch Revolt is not found in the areas the *Commentario* is about. Ships hardly fulfilled a strict military role; there was no room for full-scale naval battles. Therefore, ships did not play an important role in the war between the Dutch and the Spanish. The comparison with the military revolution on this subject is hence not valid.

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[248] Verdugo, *Voor God en mijn koning*, 194.
[249] Ibid, 143. 277.
[250] Ibid, 116.
[251] Ibid, 248.
[252] Ibid, 254.
[253] Ibid, 194.
[254] Ibid 111.
[255] Ibid, 183.
[256] Ibid, 144-5.

Chapter Seventeen: Infantry tactics

> 'The European battlefield was dominated by small numbers of lumbering dinosaurs – massive squares of infantry made up of central blocks of pikemen fronted on all four sides by deep belts of musketeers. (…) While rapidly moving cavalry could dart across the battlefield to pester these infantry formations, they lacked the means to do any serious damage'[257].

This example is of course of a pre-sixteenth century Europe, before the military innovations of that time. Because over the course of the sixteenth century, the formations of the shooters changed to linear ones, that potentially greatly enhanced the firepower of an army. That potential could be achieved by intense training, drill, of which Maurice of Orange is seen as initiator. Especially Parker sees his role as extremely important to his concept of the early modern military revolution.[258] And although, *'to some extent, however, the full value of the Nassau tactical reforms remained unrealized in the Netherlands, since the Dutch army was seldom exposed to the supreme test of battle'*[259], the military reforms of Maurice are seen as the reason of his tremendous success in beating back the Spanish armies.

Verdugo's account contradicts this notion of military innovation as the reason he and his countrymen were so shamefully defeated in the north. That the army of the Dutch rebels was never put 'to the supreme test of battle' was not his fault. As a captain with chivalric ideas about warfare, time and time again he had tried in vain, to tempt his opponent into an open battle.[260] '*De oorlog wordt gevoerd met behulp van afleidingsmanoeuvres en preventieve operaties.'*[261] The main group using these tactics was of course the 'Beggars'. *''s Konings rebellen maakten gebruik van een strijdmethode die ook in de eenentwintigste eeuw nog niets aan effectiviteit heeft verloren. Deze was erop gericht de plattelanders permanent in een staat van angst te doen verkeren en hun duidelijk te maken dat de koninklijke strijdkrachten hen niet konden beschermen. Vanaf het wad of vanuit hun bases aan de rand van het gebied dat officieel in handen van de koninklijke troepen was, deden de geuzen niet alleen bij nacht en ontij, maar ook bij klaarlichte dag invallen in dorpen en bij afzonderlijke huizen, kidnapten reizigers, stichtten brand, roofden vee, maakten gevangenen en dwongen de plattelanders toekomstige overvallen af te kopen'.*[262]

Sometimes a battle could not be avoided. Verdugo in his fourteen years as soldier in the Low Countries fought only three battles, those of Amerogen, Noordhorn and Lochem. The first one, in the first year of his tenure, was on the thirtieth of September 1581 at Noordhorn where his forces emerged victorious.[263] At the start of the battle Verdugo's troops were dug in. Their formation consisted of

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[257] David Parrott, 'The Military Revolution in Early Modern Europe' in: *History Today* Vol. 42, No. 12 (December 1992), 21-27, 22.
[258] Parker, *The Military Revolution, 18-20.*
[259] Ibid, 22.
[260] Verdugo, *Voor God en mijn koning*, 54, 103, 161, 256.
[261] Ibid, 282.
[262] Ibid, 76.
[263] Ibid, 105-8.

German soldiers in the centre, because of their suspicious loyalty, with his Spanish infantry and cavalry spread out and stationed at both wings. Behind the right wing lay two hundred harquebusiers in wait for the enemy cavalry, with another two hundred harquebusiers next to their mounted counterparts somewhat out of sight near a house, on levelled terrain, that would hopefully attract the enemy army. Five pieces of artillery started firing on the Spanish positions, without much damage and therefore the rebels attacked with their main force exactly where Verdugo had hoped, where they came in sight of the house where his force was hidden. These shooters slew many enemies; because of the distance being less than thirty paces between them and their targets, so accurate fire was not really necessary. His own cavalry routed that of the enemy, with supporting fire from infantry, who were relatively safe from inside their dug positions. On the Dutch side, between two to three thousand enemies supposedly had fallen over the course of battle; Verdugo made no mention of his own casualties.

The second battle took place a year later, on the twenty-ninth of August 1582 and was fought with a relief army near Lochem because Verdugo was besieging that city.[264] The Dutch had a larger cavalry, so he held back his own. When the enemies' horses did attack, feeling confident of the weakness of their opponent, he sent infantry armed with pike, sword and halberd that fought off the enemy cavalry. Luckily, the terrain, with many trenches dug, hindered the horses. They could not utilize their speed to the fullest extent and could easily be beaten. But Verdugo and his army were caught between the relief army and the city, which both attack with heavy cannon fire. They have a desperate, failed attempt to lure the relief army in an open battle before they have to escape and break off the siege of Lochem.

His third and final battle took place on the twenty-third of June 1585, at Amerongen, which proved to be a success for the royal army. During the initial phase of fighting his cavalry won the clash against their Dutch counterparts. His horsemen drove off or defeated their counterparts. This left the infantry of the rebels in a vulnerable position. Verdugo released his combined forces on the remaining infantry who were then easily beaten.[265]

Based on Verdugo's *Commentario*, the developments of the military revolution don't become as apparent as Roberts and Parker have concluded. Verdugo's account shows a fighting force that seldom has direct confrontations with its opponent on a grand scale. In the three battles where his troops were involved, cavalry still played the decisive role and not according to the military revolution, soldiers armed with firearms. The image of Maurice of Orange as military genius also has to be nuanced based on Verdugo's experiences. The fact the royal army was defeated had little to do with unbeatable opponents who used volley fire but with practical issues, mainly with a lack of funds.

[264] Ibid, 123-8.
[265] Ibid, 163.

Conclusion of part three

The military innovation of the Dutch troops in this period is praised almost unanimously. The praise for the Dutch comes mostly from those who support the early modern military revolution theory. But from Verdugo's *Commentario* a different picture is created from the Dutch war effort, an image that would suggest a more nuanced approach to the military revolution. A comparison between the pillars of the military revolution and the actual military activity displayed by Verdugo and his soldiers, leads to a contrasting outcome on several parts of the theory.

For instance, according to the military revolution, a decline of cavalry took place, because of the rise of firearms. Yet, in *Commentario* Verdugo and his opponents still believed that cavalry was very important; there is little proof to be found in the fighting in the northern parts of the Low Countries that the 'golden days of the horse' were over. We also don't see a tendency for open battles, fought on a grand scale. Verdugo even fought fewer battles than he had liked, because of the tactics of his opponent, who avoided him and declined one open battle after the other. The three 'large' battles that did take place also do not present themselves as clear example of military innovation. All fought before Maurice started his success because of his innovation with the Dutch army, they show a traditional battle where –again - cavalry twice plays a decisive role, while at Lochem the Dutch cavalry is stopped with tactics originated from medieval times. It would be hard for supporters of the military revolution theory to find proof for their claims in these military affairs.

The part that does hold up however, is of course, siege warfare. Verdugo's men saw an abundance of sieges during their career. They besieged several fortified settlements that were up to date with their protection, *trace italienne* styled bastions. The cohesive 'artillery revolution' is also found in *Commentario*, there are several references to successful bombardments of fortifications that weren't modified like *trace italienne*. Those that were built in the latest fashion were also much harder to bombard into surrender.

Studying military history of the sixteenth century with the military revolution as a research subject quickly leads to the use of a grand narrative to describe whether or not military innovation took place. Historians such as Parker have made an excellent case describing innovation in the Low Countries. When looking at the period bottom-up, rather than top-down, with the eyewitness account of someone like Verdugo, shows military innovation as an even more complex process. Something that did not took place as linear as Parker would like us to believe. On the battlefield itself, and during his campaign, Verdugo encountered many problems, lack of experienced soldiers, lack of funds, etcetera, that severely hindered 'best practice' or military innovation. The arguments for a military revolution in this time and place, namely the late sixteenth century in the Low Countries, thus become somewhat weaker.

Conclusion

I have set out to study the global effects of military innovation in the sixteenth century. The innovation that took place during that period is usually attributed to the theory on an early modern military revolution. The creator of this theory, Michael Roberts discerned four cohesive innovations, namely the use of firepower on the battlefield - something which his protégé Geoffry Parker expanded into two different developments, namely infantry and artillery – the growth of armies, more complex strategies and a bigger impact on society. Both men saw tactical developments influencing strategy. This happened in Europe and started as early as the sixteenth century.

In his book *The Military Revolution: military innovation and the rise of the West 1500-1800* Parker puts forward the theory that because of military innovation, Europe managed to become more powerful than other continents such as America, Africa and Asia. He distinctly places a lot of value in the agency of technology. A terrain of history connected with his research is the Spanish conquest of the New World. Various factors are linked to their impressive achievements, but the role of technological superiority, firearms, is commonly seen as decisive.

In my thesis I wanted to test these assumptions of European technological superiority, or military innovation and try to assess whether the European military revolution could be expanded to Latin America as well. By studying the conquest of New Spain and New Granada in the first half of the sixteenth century and by comparing the outcome with the work of Vargas Machuca who also fought in New Granada but fifty years later, a detailed account of Spanish military practice becomes apparent. By looking at Verdugo in the Low Countries, who fought in a similar position as Vargas Machuca, it should become **clear** whether military innovation took place and if it was a specific European phenomenon or not.

To discern which elements of warfare underwent innovation, I have chosen for a subdivision into five aspects of warfare: the use of firearms, horses, infantry tactics, steel and ships. Verdugo's different surroundings made a change necessary in the third part, omitting steel and combining firearms and horses while adding a chapter on sieges. Of these six elements, only infantry, firearms and sieges are directly tied with the concept of military revolution.

According to supporters of the early modern military revolution, the introduction of firepower led to innovation in both infantry and artillery tactics. The success of the Spanish *conquistadores* is also attributed to their spectacular use of firearms, slaughtering Indians with relative ease, from a safe distance. When looked at in detail however, the situation is much more complex. It is true that the Indians could not deploy weapons that could inflict similar damage as harquebuses and crossbows. But, accounts on the conquests in New Mexico and New Granada, show that Spanish deployment was also limited. The *conquistadores* frequently resorted to hand-to-hand combat because they had run out of powder and shot. Combined with the fact the weapons were heavy, took great to time to reload and weren't that useful to an opponent with overwhelming numbers greatly downplays the technological superiority claim of the Spanish. That the weapon in the long run proved to be decisive was because

the Spanish could import and use them in great numbers against an opponent who could not. It was not decisive during the initial phase of conquest because the firearms were, in themselves, superior weapons.

In *The Indian Militia* Vargas Machuca shows us a similar picture. According to him, firearms were important, because the Indians still didn't use them – which by his time is quite strange, because of the trade between Indians and Europeans. The tactics that he advised to use for soldiers armed with firearms were similar to those used fifty years earlier in the conquest. They don't reflect the European trend of drill, volley fires and counter marches that are linked with the military revolution. There was no need, because the Indian opponents still resorted to their native way of warfare, and still could be defeated the 'old-fashioned' way.

One would think that in the Low Countries, Verdugo would have encountered a picture perfect example from innovative use of firearms, as if it came straight from Jacob de Gheyn's *Wapenhandelinge*, used by his famous opponent Maurice of Orange. But from his *Commentario* the account of battles continuously are a description of both infantry and cavalry working alongside each other, with the leading role for the latter. The contrasts the military revolution, that awarded infantry armed with firearms a more important role at the expense of cavalry. Verdugo did report a tendency on overall the use of firearms in both his army and that of his opponent, so his case doesn't contrast with the military revolution completely.

The use of firearms in Latin America and the Low Countries does not fit the original theory of the military revolution. To speak of a global aspect therefore is pointless. Military superiority in Latin America was not achieved due to an innovative tactic using firearms, but simply through their use, no different than in medieval times. The situation recounted by Verdugo nuances the military revolution, while on one hand he reports a growing importance of the use of firearms in conflicts; on the other hand he stresses the role of cavalry even more.

The horse is not part of the theory of the military revolution. But this animal helped the Spanish achieve military superiority in New Spain and New Granada. The horse, an image of medieval warfare, was absent from the New World before the arrival of the Europeans. The Indians therefore could not counter them effectively in the beginning, and thus the Spanish were successful. The horse was praised for his speed, and so mainly used by Cortés and Quesada as a shock weapon or for intelligence and transportation.

This is the same in the period thereafter, although during his punitive expeditions Vargas Machuca struggled even more than his predecessors with the difficulties of certain types of terrain, in which horses were not suitable. Verdugo also placed great importance in the horse, valuating it even more than infantry.

So, instead of clear military innovation as a part of the military revolution, the use of the horse seems to be the opposite. Rather than substituting the animal in favour of the gun, in the Low Countries there still is a heavy reliance on the horse, while in the New World, it is also still being used, with no innovative tactical changes and with great success. The fact the Indians could not deploy a similar weapon was another element that caused European superiority. The

horse was not decisive. But combined with other elements the Indians did not have, such as steel, it proved to be pivotal to European success.

Just like the horse, steel was absent from the New World. It also is not a part of the military innovation that makes up the military revolution. Europeans had known steel for years. Its strength, whether for weapons or armour, was something the Indians had trouble matching. But a lack of materials to repair their steel weapons, cuirasses and helmets made the Europeans turn to native ways of protection. That worked out nicely, because the Indians lacked strong weaponry to penetrate that type of armour with ease.

Vargas Machuca described the same situation. The Spanish enjoyed superiority because of the lack of an Indian counterpart for steel. Their reliance on steel even became greater during his time, because lack of powder and shot sometimes only made limited deployment of firearms possible. In other words, the value placed in steel was sometimes even greater than that placed in firearms.

According to the military revolution, just like the horse, steel made way for firearms. While this seems true for the situation in Europe - Verdugo's account does not contain helpful references on the subject of steel, focussing rather on gunpowder weapons - in the New World we see an opposite development. Because of practical issues, the use of firearms was limited. The next best thing for the Spanish was their steel weaponry. They continued to use them extensively throughout the sixteenth century, something that contradicts a global effect of the military revolution.

Ships are not a part of the original military revolution theory as well. In a way naval developments are a relative new addition to the discourse. In his book *The Military Revolution, Military Innovation and the rise of the West 1500-1800* Geoffrey Parker devotes an entire chapter to the connection between the military revolution and the sea. In 'Victory at Sea', Parker explains the naval power of the West and how this enabled them to conquer their adversaries but his focus was on the role of firepower aboard ships. '*(…) The native peoples of America, Siberia, Black Africa and the Philippines lost their independence to the Europeans because they had no time to adopt Western technology, those of the Muslim world apparently succumbed because they saw no need to integrate it into their existing military system.'*[266] My focus was a different one, whether ships in general helped Spain gain the upper hand during the conquest or not.

Ships did play a pivotal role in the conquests of Spain. Because of their global network, the Spanish crown had the potential to transport huge amounts of men to the New World, far more than the Indians could beat back. This combined with several military elements the native population did not have, paved the way for European success.

Apart from the bigger picture, on micro-level, both Cortés and Quesada were dependent on supplies brought via ships. Cortés only started with a small group of soldiers, with a low amount of supplies. His strike force continued to grow during the two years conquering the Aztecs, which greatly enlarged his chances for success. Quesada nearly starved several times before the reached the

[266] Parker, *Military Revolution, 136.*

plains in New Granada, only because he kept close to the river where ships filled with supplies travelled alongside he had a chance for survival.

Vargas Machuca's position as a captain who was sent out on punitive campaigns usually led him into the thick jungles, where ships were of little use. Therefore, *The Indian Militia* hardly contains references to the use of ships. For Verdugo, ships were the fastest ways of travelling the wet countryside of the northern parts of the Low Countries. There are some reports of attacks on ships, but the constricted space made actual naval battles impossible.

To speak of a naval revolution goes too far in this matter, it is hard to find revolutionary use of ships, apart from the distance they could travel or the way they were armed as Parker has shown. But the overall use of ships was decisive in the Spanish conquest. Without ships, it is easy to see the *conquistadores* perish in the fight against an overwhelming amount of Indians. With an endless stream of ambitious men pouring out of Europe, eager to make a fortune for themselves abroad, Indian resistance didn't seem so overwhelming anymore.

The role of infantry is vital for the theory of the military revolution. Because of the 'infantry revolution', the fighting strength of the foot soldier increased. Infantry started to dominate the battlefield. Armies could grow, because infantry was less expensive than cavalry. This is at odds with the situation in New Spain and New Granada. Cortés and Quesada are the leaders of a relative low amount of European soldiers. While according to the military revolution, in Europe the armies steadily grew, reaching huge numbers by the seventeenth and eighteenth century, the Spanish Conquest shows a different picture. While the conquest of the Aztec Empire stands out because of the high number of native auxiliaries, the European forces led by Cortés and Quesada were small fighting groups. Another difference between the situation in the New World and Europe was the fact that very little of the men who travelled abroad had formal training and military experience. They acquired a certain level of professionalization – an early element of the military revolution- , something that grew as they became more experienced, but they lacked military training. A third difference between warfare in Europe and the New World was the low number of open and pitched battles. The Indians avoided them, because they feared the weaponry of the Europeans and realized they could inflict greater damage fighting in a different way, planning night attacks and ambushes for example.

The Indians quickly realized that if they resorted to guerrilla tactics, their chance of success grew. This explains why in the late sixteenth century Vargas Machuca was still busy putting Indian resistance down. The tactics that the *conquistadores* had used before were not efficient to counter Indian guerrilla-style warfare. Vargas Machuca therefore wrote *The Indian Militia*. But the image he paints of warfare in New Granada hardly shows influences of the military revolution. Because of the nature of his function, Vargas Machuca was an energetic advocate of small strike forces, as opposed to the snowballing effect of army growth in Europe. He wasn't a *conquistador* who actively expanded territory for his king but a soldier who tried to consolidate previously gained terrain. So, his tactics were different. One of the reasons he wrote *The Indian Militia* was to inform his readers of counter-insurgency, to harm the despicable Indians who hid themselves and evaded open battles.

According to the theory of the military revolution, Francisco Verdugo should be a soldier who found himself in the midst of revolutionary changes in warfare when he fought the Dutch rebels in the Low Countries. But from reading his report, many developments of the military revolution do not present themselves in a clear way. Similar to his New World counterparts, Verdugo faced an enemy who tried to avoid open battles. When he did manage to face his opponents in such a fight, it wasn't a full-scale gunpowder battle, where infantry armed with firearms prevailed but where cavalry made the difference. On two subjects *Commentario* gives proof of military revolution developments. On several occasions Verdugo spoke highly of the professionalization and discipline of Spanish soldiers and discounts men of other nations. Also, during the end of his campaign, Maurice of Orange' army had grown so much; they started to act more aggressively. Verdugo's own army could not undergo the same growth, for he suffered extreme budget issues.

The final subject of my research was siege warfare. Originally a part of the 'artillery revolution', the European military architecture owed much change to the military revolution. *Trace italienne* styled fortifications started in Italy and continued to spread across the continent, dominating siege warfare. Cortés and Quesada rarely were involved with sieges during their conquest. On the one hand they had neither soldiers experienced in siege warfare nor the necessary materials; on the other hand the Indians were not the type of enemy who hid behind fortifications. Apart from the famous siege of Tenochtitlan, made possible by an enormous effort delivered by *native* auxiliaries, the Spaniards did not find themselves in the role of besiegers.

The same goes for Vargas Machuca, who is an example of the active way of warfare necessary to catch guerrilla Indians. This type of enemy rather hid themselves in natural landscapes, than openly hide in fortified settlements, that were easily found and drew unwanted attention.

But the case of Verdugo is the part of this thesis where the military revolution is unquestionably apparent. In the Low Countries he encountered several *trace italienne* style fortified castles, cities and villages. His comments also support the military revolution. Verdugo and his opponents had more trouble conquering castles, cities and villages that were fortified in the *trace italienne* style. In the past, taking strongholds required an impressive artillery bombardment. Although this was more than enough to claim success in the case of medieval structures, *trace italienne* had made the job more difficult. Now it usually took more than just a bombardment to push an opponent into surrender.

The work of historians such as Michael Roberts and Geoffrey Parker on the subject of the early modern military revolution has immensely enriched the debate on military history of the medieval and early modern period. When studying European warfare in these two periods, one cannot avoid their work and meticulous conclusions. The role of firepower, the growth of armies, the complexity of strategies and the impact on society were a revolution in European warfare. But from the conquest of New Spain and New Granada a different type of warfare becomes apparent, one that suggests a limited global effect of the military revolution. In other words, warfare is not something that innovates

everywhere at the same pace. It also shows that warfare always must be analysed within the context of its local situation.

The results of this research into six different elements of warfare portray an image of war sometimes conflicting and sometimes supporting the military revolution theory. What I have tried to show is that revolutionary aspects of warfare that became the norm in Europe weren't always exported abroad. Warfare in the New World asked for different tactics, influenced by both practical issues such as the durability of firearms and ready access to munitions and by tactics used by Indian opponents. That this could be the same for regions in Europe becomes clear from Verdugo's case. His story supports my claim for a nuanced approach to the reach of the military revolution. In Europe, even in the Low Countries, an important area for the military revolution according to Parker, practical issues – in this case finances – and the tactics of an opponent military innovation.

These four conflicts seem to weaken the claim for an early modern military revolution and the coherence with 'the rise of the West'. This is not the case! Using the theory of the military revolution or innovation serves as an excellent framework to assess whether warfare in the early modern period had evolved. Without such a framework, studying military history becomes less accurate. The four conflicts I have studied show that military success in New Spain and New Granada cannot solely be attributed to the military revolution. In some cases, tactics used by the soldiers differ little from those used in medieval times, which can be hardly used as proof for military innovation. Neither is the lack of military innovation in the Spanish army in comparison with Maurice of Orange's army the single cause for Verdugo's loss in the Low Countries.

These four confrontations show that when studying military innovation, especially outside of Europe, it is worthwhile to compare Roberts and Parker original four elements to various early modern conflicts around the world. By studying each conflict within its own historical context, military innovation can present itself. It may even be worth of the term revolutionary. The conquest of New Spain and New Granada are not showcases of the global effect of the military revolution, they show a combination of tactics used from earlier periods and military innovation from the sixteenth century that both are used in a way caused by the tactics used by native adversaries. This leads us right back to the criticism of Jeremy Black, because these kinds of situation are outstanding examples of 'best practice'.

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