

Chapter 5

(Note by editor: Please read the associated Comments in the right margin for an explanation of edit perspective.)

Conclusion

“History is complicated.” This phrase has been used so often among historians and students of history that it ~~can~~ often elicits ~~an~~ eye rolls. People ~~restate~~ repeat this ~~phrase~~ idiom so often because of the truth behind the words. Any argument ~~trying~~ made to simplify the ~~description of the~~ Hundred Years War, or any other, to a ~~simple~~ single statement of fact ignores so many facets of history ~~that a true understanding as to hinder understand~~ of the complex subject ~~is hindered~~. ~~There were a~~ myriad of factors ~~involved~~ influenced the course of ~~in~~ the Hundred Years War, from the politics, to the strategy, and down to the tactics ~~applied~~ level. Modern historians, either ~~looking~~ to revise a perceived inaccuracy or to sensationalize the story they ~~mean~~ endeavor to tell, have made the ~~fault~~ error of simplifying history with ~~the a~~ single story line: the French lost the Hundred Years War to the English simply because of the high efficacy of the English longbow ~~as used on the battlefields of France~~.

~~In regards to~~ For the effectiveness of ~~the English~~ arrows of ~~the English~~ against French armored men-at-arms, DeVries pointed out that while many of the English sources praise the ~~superiority of the~~ longbow, some French sources dismiss it ~~as pivotal to the battle outcomes~~.¹ Just because some French sources do not ~~support~~ agree with the English sources does not mean

Commented [MC1]: Note that my edits were limited to clarification and correction of grammar/spelling. I walked a fine line between re-writing the text and limiting my edits to unraveling complex sentence structures and correcting grammatical and spelling errors. This thesis was praised by members of the thesis committee for its clarity and readability. It was written by a career Army Staff Sergeant who was intent upon earning a Master of History degree. He earned his degree.

Formatted: Font: Bold, Font color: Text 2

Formatted: Font: Bold, Font color: Text 2

Formatted: Font: Bold, Font color: Text 2

Commented [MC2]: “History is complicated” is not an idiom. “a group of words established by usage as having a meaning not deducible from those of the individual words (e.g., rain cats and dogs, see the light)”. “Categorized as formulaic language, an idiom’s figurative meaning is different from the literal meaning.”

Commented [MC3]: An argument can’t try, but an argument can be made.

Commented [MC4]: You already characterized the action as “simplify” earlier in the sentence.

Commented [MC5R4]:

Commented [MC6R4]:

Commented [MC7]: You make an “error”, you find “fault” with others.

Formatted: Font: Not Italic

¹ Kelly DeVries, “Technological Determinism of Victory at the Battle of Agincourt,” *British Journal for Military History* Vol. 2, no. 1 (November 2015), accessed May 15, 2019, <https://pdfs.semanticscholar.org/e127/54a734813ffe20817475a2acf0e69748e799.pdf>.

that ~~the~~ historians should discount either of the sources because both sides' perspective offers information pertinent to the analysis. —England had political reasons to self-congratulate and find pin-point a reason for their victories just as the French had political reason to dismiss the longbow as a superior weapon because its use did not fit in with support their ideals of chivalry and nobility. Objective Historians would do well to take evaluate both views as counterbalances, acknowledging that the longbow was allowing room for an effective weapon, but not the only reason that the English won the war, a war winner, on its own. The sources summary informations reviewed in eChapter eOne of this work support the idea that the warbow was a weapon that which shifted English battlefield tactics towards fighting from the defensive, a strategy which allowed where the English archers and English men-at-arms to could support each other to great effect.

Commented [MC8]: Removed an unnecessary phrase to remove sentence structure complexity.

While English sources support the view believe of at that the longbow that was effective against the French armored man-at-arms, sources also support the believe that the effectiveness of French armor was effective in warding off damaging arrows. French tactics were built developed to enhance around the capability of their armored men-at-arms, who were be they either dismounted or charging from atop a warhorse. French armor also was adapted to support those strategies; with the most vulnerable areas of the body anatomy was becoming the first parts to be armored in plate. French plate armor offered as much of a technological innovation as did the English longbow. and the two combatants entered an arms race. B with bowyers attempting worked to develop technology to overcome plate armor, the design of which was that was under continual refinement ever more refined to resist not just arrows, but all damaging blow a knight might encounter endure in battle. It was the development of hardenable steel plate (carbon steel heat treated, quenched and tempered to increase its strength).

Commented [MC9]: Both English and French referenced in this paragraph. Specify who developed the tactics.

in particular, that marked the end of longbow dominance on the battlefield, but a tactically significant percentage of enough people French fighters did not adopt the new plate armor design which afforded better protection against longbow arrows, and as long as this was true the longer the longbow remained effective, and the longer before it fell into obsolescence, or could afford this technology during the scope of this study to drive the longbow to obsolescence.

Commented [MC10]: That the new plate armor design was not adopted is the important point here. Why they did not adopt did not change the outcome of the insufficient adoption.

To substantiate the English sources' claim of the longbow's effectiveness, testing of longbow performance was required. The goal of the testing was to determine if the force generated by a longbow and its arrow was great enough to pierce the armor worn at the time. contended that the warbow was effective, it became necessary to test the weapon to see what kind of force it could generate to be able to puncture armor. Calculating the joules of energy in a specifically weighted arrow at a certain speed was easy enough. The first unknown to solve was the range of speed with which a longbow could deliver an arrow. question that needed to be answered to use this data to effect was how fast the bow could cast an arrow. One variable to consider was the longbow's This was dependent on its pull weight, which was the force needed to hold the string at a set draw length. Determination of Ddraw weights caused arguments between historians who could not agree on the attributes of just how much weight the typical longbow had. Before the recovery of the longbow staves of from the Mary Rose, historians assumed that the combat longbow draw weights to were approximately the same as be close to those of the target longbows still currently in use recreationally. The draw weights of the Mary Rose bows have been calculated to be higher than those possible with today's target longbows have a much greater draw weight and, using reconstructions of these Mary Rose bows made with modern yew, suggested that these calculations were substantiated. higher draw weights were accurate. While some estimates put warbows at a higher draw weight, it good bows was were

Commented [MC11]: General clarification of the concept.

Commented [MC12]: Bows can't be calculated, however, draw weights of bows can.

Commented [MC13]: Identify these bows. Good target bows? Good warbows?

expected ~~that good bows to~~ have a pull of between about 120 and 140 lbs. Bows with draw weights in this range ~~can~~ cast arrows ~~meant with an impact adequate~~ for war ~~with similar force when~~, ~~with~~ heavier arrows ~~are used to mitigate any making up for the~~ loss of speed ~~with the increased impact of weight~~. ~~During the testing~~ ~~An~~ arrow struck with approximately ninety joules of force at close range, ~~and with~~ some arrows ~~were being~~ recorded ~~to as strike striking~~ with as much ~~force~~ as 100 joules ~~or more~~. The energy ~~delivered by the warbows of the tested draw weight with~~, ~~along with~~ arrowheads that were hardened and shaped to maximize penetration of armor, ~~provided~~ ~~presented~~ a deadly threat to the man-at-arms not armored in the best materials.

Commented [MC14]: If "or more" could be substantiated, that value would replace the 100.

Just as the bow's ~~strength was a mystery~~ ~~provided mystery to its strength~~ due to a ~~lack~~ ~~dearth~~ of ~~testable~~ artifacts, so too ~~has was~~ the resiliency of armor ~~been~~ questioned. ~~Williams~~ ~~has~~ led the way in understanding the metallurgy of medieval Europe and ~~the level of protection how protective~~ those armors ~~provided~~ ~~were~~. His testing of ~~armor~~ artifacts ~~revealed~~ ~~found that~~ the approximate durability of iron plate and medieval mild and hardened steels ~~and how they could be considered as compared to the~~ equivalent ~~to~~ modern mild steels of the same thickness. He also meticulously measured ~~what~~ early armors ~~were available to~~ ~~survey the thicknesses used in the construction of~~ ~~find out how thick~~ plate armor ~~could be~~. Though ~~numbers~~ ~~the plates' thicknesses~~ vary wildly over time, in the fourteenth and fifteenth century, the thickest ~~plate part of the armor~~ was ~~used to produce~~ the helmet and the cuirass, ~~the armors used to protect the anatomy most vulnerable to serious injury~~. ~~The thickest armor plate measured is both of which would have measured~~ between one and a half and two millimeters. ~~Other, thinner plate armor is thick at the thickest and other parts of the body had plates that were thinner, sometimes~~ less than one millimeter thick. Just as the thickness was important, the material ~~used~~ had much to do with the armor's characteristics. The three major materials used in the early fifteenth century, ~~as~~

Commented [MC15]: Footnote?

~~mentioned above~~ were iron, mild steel, and hardenable steel. Each of those materials had greater defensive ~~abilities-performance~~ than the one ~~listed~~ before it. ~~Rogers~~ estimated that only a small percentage of the men-at-arms ~~of-at~~ Agincourt owned hardened steel armor, ~~with-and~~ a majority of those wearing plate still ~~relied-relying~~ on iron for protection. Testing ~~was~~ conducted on both modern mild steel and a modern iron that ~~shared-shares~~ many characteristics with its medieval counterpart. In the tests conducted by ~~Williams~~, ~~he-it was revealed~~~~found~~ that the curvature of armor ~~had-an-influenced-on~~ the strength of the armor, ~~and that when testing against flat sheets,~~ ~~s~~Shooting at ~~a the-flat~~ sheet ~~of metal~~ from a thirty-degree angle replicated the effect of the curve ~~on an arrow's penetration~~. These tests, ~~when compared to those of the power of the bow,~~ ~~when considered in conjunction with the results of the evaluation of the longbows' power,~~ ~~suggested resulted in the revelation~~ that iron armor was very vulnerable to arrows unless it was ~~at least~~ two millimeters thick ~~or-greater~~. Either type of steel was resistant to arrows with mild steel providing reasonable protection at range and hardened steel being almost impervious to all but the most direct hits or strikes to the thinnest ~~areas~~~~plates~~.

~~Williams~~ ~~gave-assigned other~~ armors a resistance value; ~~these resistance values~~ ~~as that~~ were adopted by most scholars currently researching this field. Williams tested padded armor, *cuir-bouilli* (~~boiled leather~~), and mail. He estimated that padding under armor added about fifty joules to the resistance of armor against a lance, ~~but arrows-resistance to arrows~~ ~~remained untested~~. Testing that ~~Williams~~ conducted against mail hinted at the ~~reason a lance tip~~ ~~cannot be evaluated as equivalent to substitute for~~ an arrow. Mail resisted ~~impact~~ forces greater than 200 joules from a ~~lance-but~~~~lance but~~ failed with only 120 joules from an arrow.

Commented [MC16]: As long as you reiterate the information here, there is no reason to mention that it was already mentioned.

Commented [MC17]: Footnote?

Commented [MC18]: Footnote?

Commented [MC19]: How are these test a comparison? I don't think you mean this.

Commented [MC20]: Footnote?

Commented [MC21]: But just below you present data from a field test of mail with padding. Something is not clear here.

Commented [MC22]: Have you presented the conclusion that a lance cannot substitute for an arrow previously? I don't think so. It seems to me that you are presenting a fact with no evidence.