HUFFPOST

How the Middle Ages Really Were

This question originally appeared on Quora: What are examples of things that are "common knowledge" about history that historians almost universally consider incorrect?

by Tim O'Neill, Medievalist, Skeptic and amateur Historian – December 6, 2017

Introduction - Myths about the Middle Ages

There are many historical myths about the Medieval Period. This is partly due to the rise of Humanism in the early Modern Period and the Renaissance movement in art and architecture. Both these movements venerated the Classical world and considered the period which followed the Classical era as degenerate and barbaric. So Medieval Gothic architecture, now recognized as being both extremely beautiful and technically revolutionary, was denigrated and abandoned for styles that copied Greek and Roman architecture. The very term "Gothic" was originally applied to this Medieval style as a pejorative: it's a reference to the Gothic tribes that sacked Rome and was meant to mean "barbaric, primitive".

The other reason for many of the myths about the period is its association with the Catholic Church. In the English-speaking world these myths have their origin in a Protestant denigration of Catholicism and a corresponding disdain for the period in which the Catholic faith was dominant. In other European cultures, such as Germany and France, similar myths have their origin in the anti-clerical stance of many influential Enlightenment thinkers Here is a summary of a few of the myths and misconceptions about the Medieval period that have arisen as a result of these prejudices:

1. People thought the earth was flat and the Church taught this as a matter of doctrine.

In fact, the Church did not teach that the earth was flat at any time in the Middle Ages. Medieval scholars were well aware of the scientific arguments of the Greeks that proved the earth was round and could use scientific instruments, like the astrolabe, the accurately measure its circumference. The fact that the earth is a sphere was so well known, widely accepted and unremarkable that when Thomas Aquinas wanted to choose an objective fact that is not able to be disputed early in his *Summa Theologica* he chose the fact that the earth is round as his example.

And it was not only the learned who knew the shape of the earth - all evidence indicates that this was commonly understood by everyone. A symbol of the earthly power of kings, used in their coronations, was the orb: a golden sphere held in the king's left hand to represent the earth. That symbolism would not make sense if it was not understood that the earth was round. A collection of German sermons for parish priests from the Thirteenth Century also mentions, in passing, that the earth was "round like an apple" with the expectation that the peasants hearing the sermon already understood what this meant. And the popular Fourteenth Century English book of travelers' tales, The Tales of Sir John Mandeville, tells of a man who traveled so far east that he returned to his homeland from the west, while not explaining to its audience how this works.

The popular idea that Christopher Columbus discovered the earth was round and that his voyage was opposed by the Church is a modern myth created in 1828. The novelist Washington Irving was commissioned to write a biography of Columbus, with the brief that he depict Columbus as a radical thinker who turned his back on the superstitions of the old world. Unfortunately Irving found that Columbus was actually wildly wrong about the size of the earth and discovered America by pure chance. Since this did not make a very heroic story, he invented the idea that the Medieval Church taught the earth was flat and created this persistent myth when his book became a best-seller.

Collections of famous quotes found on the internet often include a supposed quote from Ferdinand Magellan which goes "The Church says that the Earth is flat, but I know that it is round. For I have seen the shadow of the earth on the moon and I have more faith in the Shadow than in the Church." Magellan never said this, not least because the Church did not say that the earth was flat. The first use of this "quote" goes back no further than 1873, when it was used in an essay by the American freethinker and agnostic Robert Green Ingersoll. He gives no citation for it and it is highly likely that Ingersoll himself simply invented it. Despite this, the Magellan "quote" can still be found in quote collections and on t-shirts and posters sold by atheist organizations.

2. The Medieval Church suppressed science and innovative thinking and burned scientists at the stake, setting back progress by hundreds of years.

The myth that the Church suppressed science and burned or repressed scientists is a central part of what historians of science refer to as "the Conflict Thesis". This persistent idea has its origins in the Enlightenment, but was fixed in the public consciousness by two popular works of the Nineteenth Century. John William Draper's *A History of the Conflict Between Religion and Science* (1874) and Andrew Dickson White's *A History of the Warfare of Science with Theology* (1896) were both highly popular and influential works which popularized the idea that the Medieval Church actively suppressed science. Twentieth Century historians of science have since heavily criticized the "White-Draper Thesis" and noted that much of White and Draper's evidence was wildly misinterpreted or, in several cases, totally invented.

Early Christianity in the later Roman era did initially have an issue with what some churchmen considered "pagan knowledge" – the scientific works of the Greeks and their Roman intellectual successors. Several preached that a Christian should avoid these works and rejected their knowledge as un-Biblical. The early Church Father Tertullian famously asked sarcastically "What has Athens to do with Jerusalem?" But this line of thinking was rejected by other prominent churchmen, with Clement of Alexandria proposing that just as God had given the Jews a special insight into spiritual matters, so he had given the Greeks a particular insight into things scientific. He argued that just as the Israelites carried off the gold of the Egyptians and put it to their own use, so Christians could and should use the wisdom of the pagan Greeks as a gift from God. Clement was later supported by the highly influential Augustine of Hippo and later Christian thinkers built on this idea, noting that if the cosmos was the product of a rational God then it could and should be apprehended rationally.

Natural philosophy, based largely on the works of Greek and Roman thinkers like Aristotle, Galen, Ptolemy, Archimedes and many others, therefore became a major part of the syllabuses of Medieval universities. Thanks to the preservation of these works by Arab scholars when they had been lost in the West after the collapse of the Roman Empire, Medieval scholars did not just study these texts and the works of the Arabs who added to them, but used them to make discoveries in their own right. Medieval scholars were particularly fascinated by the science of optics and invented eye glasses partly as a result of their studies using lenses to determine the nature of light and the physics of sight. The Fourteenth Century scientist Thomas Bradwardine and a group of other Oxford scholars called "the Merton Calculators" not only first formulated the Mean Speed Theorem but were also the first to use mathematics as a language to describe physics, laying the foundations of everything done in the science of physics ever since.

Far from being persecuted by the Church, all of the scientists of the Middle Ages were themselves churchmen. Jean Buridan de Bethune, Nicole d'Oresme, Albrecht of Saxony, Albertus Magnus, Robert Grosseteste, Thomas Bradwardine, Theodoric of Fribourg, Roger Bacon, Thierry of Chartres, Gerbert of Aurillac, William of Conches, John Philoponus, John Peckham, Duns Scotus, Walter Burley, William Heytesbury, Richard Swineshead, John Dumbleton and Nicholas of Cusa were not only not persecuted, suppressed or burned at the stake, but were honoured and renowned for their learning and wisdom.

Contrary to the myth and to the popular misconception, there is not one single example of anyone being burned at the stake for anything to do with science in the Middle Ages, nor is there any example of science being suppressed by the Medieval Church. The Galileo Affair came much later (Galileo was a contemporary of Descartes) and had far more to do with the politics of the Counter Reformation and the personalities involved than anything to do with the Church's attitude to science.

3. In the Middle Ages millions of women were burned by the Inquisition as witches and witch burnings were a common occurrence in Medieval times.

Actually, the "Witch Craze" was not a Medieval phenomenon at all. Its heyday was in the Sixteenth and Seventeenth Centuries and was an almost exclusively early Modern affair. For most of the Middle Ages (i.e., the Fifth to Fifteenth Centuries) not only did the Church not bother pursuing so-called witches, but its teaching was actually that witches did not even exist.

Until around the Fourteenth Century the Church scolded people who believed in witches and rejected the whole idea as a silly peasant superstition. Various Medieval law codes, both canon and civil law, did not declare witchcraft to be forbidden, but rather declared belief in the existence of witches to be outlawed and/or sinful. One churchman was confronted with a village of people who genuinely believed the claims of a woman who claimed to be a witch and who said, amongst other things, that she could turn herself into a puff of smoke and leave a locked room through the keyhole. So to prove the foolishness of this belief he locked himself in a room with the woman and encouraged her to escape through the keyhole by beating her with a stick. The "witch" did not escape and the villagers got the idea.

Thinking about witches began to change in the Fourteenth Century, particularly in the wake of the Black Death of 1347-1350, after which Europeans became increasingly fearful of conspiracies by maleficent underground forces, mostly imaginary. Apart from blaming the Jews and fearing cells of heretics, the idea of covens of witches began to be taken more seriously by the Church. This came to a head in 1484 when Pope Innocent VIII published the bull *Summis desiderantes*, which effectively kicked off the Witch Craze which raged across Europe for the next 200 years.

Both Catholic and Protestant countries were caught up in the Witch mania once it got going. What is interesting is how the Craze seems to have followed the fault-lines of the Reformation: Catholic countries which had little major threat from Protestantism, such as Italy and Spain, saw very little witch-hunting while those in the front-line of the religious struggles of the time, like Germany and France, saw the most. This meant the two places where the Inquisition was most active were also the places where there was the least hysteria about witches. Contrary to the myths, the Inquisition was far more concerned with heretics and relapsed Jewish converts than any "witches".

In Protestant countries, witch-hunting flared when the status quo was under threat (such as in Salem, Massachusetts) or in times of social and religious turmoil (as in Jacobin England or under Oliver Cromwell's puritan regime). Despite wildly exaggerated claims of "millions of women" being executed for witchcraft, modern scholars estimate the actual death toll to be around 60-100,000 people over several centuries, with 20% of the victims being men.

Hollywood perpetuates the myth of "Medieval" witch hunting and few Hollywood movies set in the period can resist at least some mention of witches or someone being threatened by a sinister churchman for suspicion of witchcraft. This is despite the fact the craze was largely post-Medieval and for most of the Medieval period belief in witches was dismissed as superstitious nonsense.

4. The Middle Ages was a period of filth and squalor and people rarely washed and would have stunk and had rotten teeth.

In fact, Medieval people at all levels of society washed daily, enjoyed baths and valued cleanliness and hygiene. As in any period prior to modern hot running water, they would have been less clean than we are, but like our grandparents or great-grandparents, they were able to wash daily, stay clean, valued cleanliness and did not like people who were filthy or smelt.

Most people in the period stayed clean by washing daily using a basin of hot water. Soap first began to be used widely in the Middle Ages (the Romans and Greeks did not use soap) and soap makers had their own guilds in most larger Medieval towns and cities. Heating the water for a full bath was a time consuming process, so baths at home were less common, but even the lower strata of society enjoyed a hip bath when they could get one. The nobility raised baths to high levels of luxury, with bathing in large wooden tubs of scented water with seats lined with silk being not only a solitary pleasure, but something shared with sexual partners or even parties of friends, with wine and food on hand, much like a modern hot tub or jacuzzi.

Public bath-houses existed in most larger towns and hundreds of them thrived in larger cities. The south bank of the Thames was the location of hundreds of "stewes" (the origin of our word for the dish "stew") in which Medieval Londoners could soak in hot water, as well as chat, play chess and solicit whores. In Paris there were even more such baths and in Italy they were so numerous that some advertised themselves as being exclusively for women or purely for the aristocracy, so the nobles didn't find themselves sharing a tub with artisans or peasants.

The idea that people in the Middle Ages did not wash is based on a number of misconceptions and myths. Firstly, in the Sixteenth Century and again in the Eighteenth Century, i.e., after the Middle Ages, there were periods in which doctors claimed bathing was harmful and in which people avoided washing too regularly. People for whom "the Middle Ages" seems to mean "any time longer ago than the Nineteenth Century" have assumed this means these ideas were prevalent earlier as well. Secondly, Christian moralists and churchmen in the Middle Ages did warn against excessive bathing. This was because such moralists warned against excess in anything - eating, sex, hunting, dancing or even penance and religious devotion. To conclude that these warnings meant that no-one bathed is clearly nonsense. Finally, public baths were closely associated with prostitution. There is no doubt that many prostitutes plied their trade in the bath-houses of Medieval cities and the "stewes" of Medieval London and other cities stood close to the most notorious districts for brothels and whores. So moralists railed against public bath-houses as sinks of iniquity. To conclude this meant people therefore did not use the bath-houses is as silly as concluding they also did not visit the adjoining brothels.

The fact that Medieval literature celebrates the joys of a hot bath, the Medieval knighting ceremony includes a scented bath for the initiatory squire, ascetic hermits prided themselves on not bathing just as they prided themselves on not enjoying other common pleasures and soap makers and bath-house keepers did a roaring trade shows that Medieval people liked to keep clean. The idea that they had rotten teeth has also been shown to be nonsense by archaeology. In a period in which sugar was an expensive luxury and in which the average person's diet was rich in vegetables, seasonal fruit and calcium, Medieval teeth were actually excellent. It was only in the Sixteenth and Seventeenth Century that cheaper sugar from the West Indies flooded Europe and caused an epidemic of cavities and foul breath.

A Medieval French saying shows how fundamental washing was to the pleasures of a good life in the period:
Venari, ludere, lavari, bibere! Hoc est vivere! (To hunt, to play, to bathe, to drink! This is to live!)

5. The Medieval period was a technological 'dark age' and there were few to no advances in technology until the Renaissance.

The Medieval period actually saw many advances in technology, several of which were amongst the most significant in human history. When the Western Roman Empire collapsed in the Fifth Century the effect on material culture and technology in Europe was devastating. Without the Empire to fund major engineering projects and large scale infrastructure, many of the skills and techniques involved in monumental buildings and complex technologies were forgotten and lost. The breakdown of long distance trade meant people became increasingly self-sufficient and produced what they needed locally. But this actually had a stimulating effect on the adoption and development of technology in the longer run. Technical advances that helped self-sufficient farming communities to be more productive became more widely adopted across Europe and this led to the development of the horse-collar, allowing more efficient haulage and plowing, the horse shoe, the mouldboard plough, allowing the cultivation of heavier northern European soils and a widespread adoption of water power in the form of water mills and tidal mills. The result of these developments was wide areas of Europe that had never been farmed in Roman times came under production for the first time and Europe became vastly more productive and, ultimately, richer than it had ever been.

The widespread adoption of water mills on a scale never seen in Roman times led not only to a wider range of uses for water power, but an increase in other forms of mechanization. The windmill was a Medieval European innovation and both wind and water mills were not just used for grinding flour but also fuilling cloth, making leather and driving bellows and trip-hammers. These last two innovations led to the production of steel on a semi-industrial scale and, along with the Medieval invention of the blast furnace and development of cast iron, advanced Medieval metal technology well beyond that of the Romans...

By the second half of the Middle Ages (1000-1500 AD) the wind and water-powered agrarian revolution of the previous few centuries made Christian Europe into a rich, populous and expanding power. Medieval people began to experiment with other uses of mechanization. Noting that warm air moved up a chimney (which were another Medieval innovation), larger Medieval kitchens had fans installed in the chimney to automatically turn spits by use of a gearing system. Medieval monks noted that using a similar gearing system driven by a descending weight might be used to measure out an hour of time mechanically. In the Thirteenth Century the first mechanical clocks began to appear across Europe, a Medieval innovation that would revolutionize how humans saw time. Medieval clocks developed rapidly, with miniaturized table clocks appearing within a few decades of the instrument's invention. Medieval clocks could be vastly complex calculating devices. The immensely complicated astronomical clock built by Richard of Wallingford, abbot of St Albans, was so complex it took eight years to run through its full cycle of calculations and was the most intricate machine ever built up to that point.

The rise of universities in the Middle Ages also stimulated several technical innovations. Scholars studying works on optics by Greek and Arabic scientists did experiments on the nature of light using lenses and invented eye glasses in the process. Universities also provided a large market for books and encouraged methods of producing books more cheaply. Experiments with block printing eventually led to the invention of moveable type and finally another highly significant Medieval innovation: the printing press.

Medieval maritime technology meant that Europeans were able to sail to the Americas for the first time. Long distance maritime trade led to the development of increasingly larger vessels, though the older form of rudders – a large oar-style of rudder mounted on the side of the ship – limited how big a ship could be. In the later Twelfth Century Medieval shipwrights invented the stern-mounted "pintle and gudgeon" rudder which allowed

far larger ships to be developed and steered more effectively. The later Age of Exploration was made possible by this Medieval innovation.

So far from being a technological dark age, the Medieval period actually saw many important innovations in technology and several of them – eye glasses, the mechanical clock, and the printing press – are amongst the most important inventions of all time.

6. Medieval warfare consisted of unorganized knights in massively heavy armor leading rabbles of peasants armed with pitchforks into battles that were chaotic brawls. This is why Europeans were usually beaten by their tactically superior Muslim enemies in the Crusades.

The Hollywood image of Medieval warfare as unskilled, disorganized chaos where knights bent on individual glory led armies of peasant levies has its origin largely in one book – Sir Charles Oman's *The Art of Warfare in the Middle Ages* (1885). This book began life as an undergraduate essay at Oxford but was later expanded and published as Oman's first book. It then became the most widely read book in English on the subject of Medieval warfare, largely because there really were not any others until several decades into the Twentieth Century, when more systematic modern study of the period began.

Oman's research suffered from many of the disadvantages of the time in which he wrote: a general prejudice against the Medieval period as "backward" and "inferior" to the Classical era, a lack of many sources which were yet to be published and a tendency to take sources at face value. As a result, Oman presented Medieval warfare as unskilled and without tactics or strategy and focused mainly on a quest for individual glory by the knights and nobles. But by the 1960s more modern historical methods and a wider range of sources and interpretations were being brought to bear on the subject, initially by European historians like Philippe Contamine and J. F. Verbruggen. These newer works revolutionized our understanding of Medieval warfare, showing that while many of our sources emphasized individual actions by knights and nobles, use of other sources painted a very different picture to Oman's.

In fact, the rise of the knightly elite in the Tenth Century meant Medieval Europe had a professional class of warriors who dedicated their lives to the arts of war. While individual glory and prowess was prized, this elite trained from early childhood and knew well that battles were won by organization and tactics. Knights trained in group maneuvers and aristocrats trained in how to co-ordinate a number of these groups (often called *conrois* or "lances") into "battles" or "battalions". This was done through combinations of trumpet signals, flag signals or visual and verbal commands.

The key to Medieval battlefield tactics was to position the core of the enemy's army – his infantry – so that its ranks were disrupted enough to be vulnerable to a killing blow: a charge by the knightly heavy infantry. This had to be timed precisely and done while maintaining your own army and not allowing your opponent's heavy cavalry a similar opportunity. Contrary to popular belief, Medieval armies were substantially infantry-based, with cavalry, including the elite knightly heavy cavalry, forming a sizeable minority.

The Hollywood image of Medieval infantry as a rabble of peasants armed with farm implements is also a myth. Infantry was often raised by levying men from the countryside, but the men who were selected were not untrained or ill-equipped. In lands where military obligation was required, there were always some men given time to train so as to be ready for war. The English longbowmen who won the day at Crecy, Poitiers and Agincourt were "peasant levies", but they were skilled, well-trained and efficient in the extreme. Italian city states set aside one day a week for citizens to drill and maneuver in unit formations and these units came to represent formidable forces. Finally, there were many men who chose warfare as a profession and nobles often took their vassals military obligations in cash and used this money to hire professional mercenary units and units of specialists in particular weapons or types of warfare (e.g., crossbowmen or siege engine experts).

Pitched battles were risky affairs that could easily go either way even if you had the enemy greatly outnumbered. As a result, open battle was actually very rare and most Medieval warfare consisted of strategic maneuver and, more often, sieges. Medieval architects raised the art of fortification to new heights and the great castles of the Crusaders such as Kerak and Krak de Chevaliers or Edward I's chain of massive castles in Wales were masterpieces of defensive engineering.

Along with the myths of Medieval armies as rabbles led by tactical idiots is the idea that the Crusaders were usually outclassed and defeated by a more tactically sophisticated Muslim enemy in the Middle East. Actually, a survey of the battles fought by Crusader armies shows that they won slightly more encounters than they lost, with both sides borrowing tactics and equipment from each other in what was generally an even struggle. It was a manpower shortage that led to the fall of the Crusader Kingdoms of Outremer, not inferior fighting skill.

Finally, there are the myths about Medieval armor. The common misconception is that Medieval armor was massively heavy, that knights had to be hoisted into the saddle by cranes and that once unhorsed a knight would be unable to stand up again. Of course, only an idiot would go into battle and risk his life in armor that encumbered movement in such a way. In fact Medieval plate armor weight only around 20 kilograms (45 pounds), which is almost half what a modern infantry carries into battle today. Modern re-enactors like to demonstrate how agile a fully armored man could be by doing acrobatics in full plate armor. Earlier full suits of mail were much heavier, but even in them a fit man was entirely agile.

Further Reading:

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