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Forms of War

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The question I attempted to answer in this smallish essay was not conceived in the beginning of its making, rather it is the culmination of several differing interests, or perhaps even experiments, if I could call them so. First, it was bewilderment, I guess, of the dangerous reality I'm living in, which took quite a while to mature, and the latent interest in history which led me to ask how did it come to this, that the world stands in an equilibrium of flimsy mutual trust between political actors holding the keys to unlocking the destruction of human civilisation. Scary, no? But true.

Now any attempt to find order in history will surely be dashed away; rightly so, because man has learned to beware of wishful interpretations of it, recognising in it potential harmfulness. Interpretations of history can and are abused for various causes and purposes, but as doing contrary would mean just an empty listing of events and dates without meaning to humanity as a whole, I am willing to take the risk as many have before and try to set my own interpretation of it, or at least a part of it. The answer I wanted required a certain order, a certain way or direction of how things developed and why.

Let us be clear; I am neither a historian nor a scientist of any kind, and my attempt could at best be called a philosophical experiment, and not caring as I do for proper citations, make of this work as you will. If anything, it may be interesting, or serve a psychologist as an inquiry into the workings of a mind unemployed into anything but idle thought. Whatever the case, I should now explain properly how I approached my conundrum.

What caught my attention first, or what I thought I should find out first, was to find the essence of war, or plainly speaking, an element of it that stretches and appears throughout its history, without which there would be no war; its law or cause, if you will. An inquiry into its origins was due, but as I saw later, it was, from the beginning, a philosophically naive question, and useless at that. Finding the essence of war, or its cause, is like searching for the Philosophers stone. Oh, if only knew the causes, cry the pacifists, we could end it forever! No more war! But, as it seems, the causes are many (some would say overpopulation, economic imbalance, biological or mental coding, class difference, etc.), and besides them, there is the very simple fact that, as long as human beings have the possibility to fight wars, they will. They, sometimes, do not even need a concrete reason for doing so. Psychologists have long searched for causes of man's aggression, and seem to agree that it is innate, as it is. But mixing up aggression of one man or his tribe with the cause of war between nations is utterly wrong, as it is no longer (and has not been for some time) a matter of individuals bickering over borders between villages, but people being sent to fight other people from the other half of the globe, people they have never seen nor hold any malice to, except maybe by means of coercion and propaganda.

Whatever the case may be, war is out there. Being a matter of groups rather than two individuals, it is different than simple aggression in that regard, also. It would appear that any group of animals capable of organisation and architecture is

also capable of war. By this I mean primarily ants, wasps, and so on, and by architecture I mean in the sense of their hives and burrowed halls. These creatures, of course, organise and communicate in a manner fundamentally different from that of humans, but the fact remains that the group is what is the driving force for both war and peaceful endeavours.

So, given that the origin of war, or its essence, is a useless question, I began to wonder instead, on the essence of its change, or, by what means, and why, did war change? It is plain to see, the way wars were conducted in the past is different from the way they are fought today.

Looking further, it quickly became apparent to me that there was a divide in history, a point, or a period, that made not a rough difference, but a clear one; a change that swept away former forms of war, and brought one to the extreme, which is where we are now.

Now, what are these "forms of war," you may be asking, and what is the divide? First I will answer the latter question, because it is already well known-I am referring to the invention and improvement of firearms in the late middle ages to early Renaissance. Now, as I lay this bare, it may seem that I am stating the obvious (in a way, I am), but the matter, at least for me, was much more complicated. You see, as much as it is a well known historical fact, for me it was a matter of fitting it in an organic, historical development, crucial to our present. Great changes do not come out of the blue, or so it seemed to me. They must have a ready bedrock, a foundation, if you will, made of needs and purposes. I did not find such a foundation laid bare in what I've so far read, at least not how I wanted it. So I looked for it myself. I hope I will manage to explain myself better further in the text.

Therefore, what is a form of war, or what constitutes it?

I

Here I articulate several elements of war, that appear more or less, throughout history. They answer the question, when a

man is given to war, how does he go about it, or, by what principle/s does he fight it (how and why does he pick the weapons he picks, or ensemble in formations as he does, and so forth)? What are these principles?

First of all, for all recorded time, war served primarily to destroy the enemy, as said by Clausewitz; all else is subordinate to it. Wars are not always fought for that purpose, but that is only when they serve an external cause. Wars in themselves, in an abstract, "pure" form, serve only this-annihilation of the enemy. This destruction, of course, while a goal in itself, in war, ensures the safety of the destroyer. So, destruction was always the means, but the true goal was triumph, bringing renewed safety.

The second is the case of the weapon. Weapons in whatever form is used in all recorded wars. By weapons I mean both what a sword is for a soldier on an individual level and a legion is for a strategic, state-level. The soldier is himself a weapon. These weapons are used in the following manner: they are set to be as much as destructive as possible on the smallest scale possible. We could call that simply-effectiveness.

Thirdly, there is distance. The increase between combatants is seen to constantly fluctuate in early forms of war; then it rapidly starts to increase, leading up to the present day, when one could blast another city to smithereens from half way across the globe.

These three would be meaningless if they did not tie into each other, if they were not bound between each other. Greater distance gives greater safety, but also allows for greater destruction. Greater destruction provides the safety through the elimination of the enemy. The following diagram should clarify.

recap what they said is not in my interest. Make no mistake, though-we are living in a state of total war. Due to global interconnectedness, it is no longer possible not to suffer the consequences of physically distant conflicts. The line between war and peace is blurred.

Take this example: In creation of total war (in which production centers are a military target), long-ranged weapons regained their potential in the sense of making up for their impression or rather, lack of full potential by not separating civilians and soldiers. When military drones were introduced, this lack of "precision" seemed to disappear, but the civilian and military targets were again not separated. This is because it was revealed that human bodies are greater threats than industrial centers. Kill the hand that holds the gun is the principle both of tactics and international strategy. Such is modern warfare.

At the end of this essay, let me give a fanciful interpretation of modern warfare. You see, I liken it to a theomachy, a battle of the gods. In the Illiad, the gods rarely engage each other directly-they prefer mortals to do their dirty work. They guide and endow their weapons with strength. The gods are wounded-ichor dripping from their wounds, but they never die. But if the gods ever truly decided to war against each other, mighty Olympus would topple.

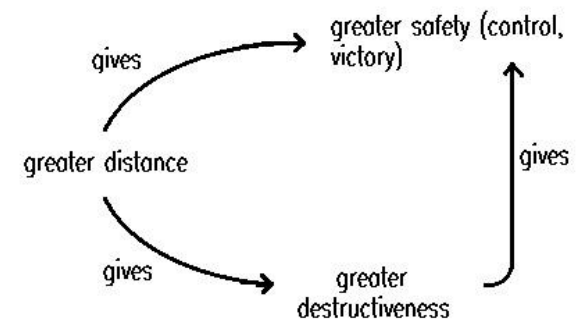
Some are expecting a bright future for humanity; some say that war could disappear in this future. I am not so sure. I used to think that there may have been a possibility for something like that, but now I think that these people might be a little mad, given what our nearest past had in store for our ancestors. Two horrific world wars scarred the planet. If that is progress, then one must consider its actual use for the human species, or the world as a whole.

weapons entails. If it is the "ultimate" weapon, or more accurately the determinant of form, it is inevitably bound to the decision of not only the military but also the civil leadership. At the time of knights, that is during the period of their domination, they were both the leadership of the realm and the "weapon of choice." The dictum: "War is the continuation of politics by other means" whether or not wrongly translated, stands as true. Modern weapons are the direct tool of the state, not its separate body, which means that if powerful modern states truly went to war, they would be doubtlessly staking their very existence. This is of no surprise to anyone, given we are aware of what these weapons are, but the philosophy underlying it is I hope a bit clarified.

Increasing distance doesn't necessarily mean increasing individual weapons. But in the case of modern weaponry, it does. The distance needs organisation to be properly used, correct? And the organisation presupposes a dispersal of destructive power. But you see, as the distance between warring forces increased, so did the counter effect of higher destructive power kick in, thus slowly individualising the weapons used. Modern war machines and modern weapons in general are quite capable to stand on their own. I am aware of the enormous organisation of supply lines and communications used to bring them together, but this is not what I speak of.

Finally, we created weapons of mass destruction. By this the fate of state was bound to such weapons. All subsequent forms of war were and still are an attempt to return war to its functional state as a useful tool of government and retaining the military leading it as a separate body. This is no longer possible.

In the conditions wrought by total war, each and every person is involved; the means of production cannot be ignored. Military and civilian targets are getting harder to differentiate. Schmitt analysed, for example, the consequences of guerrilla warfare. Others analysed other aspects of modern warfare. To



These determine the form of war in the following way: The greatest destructive power is concentrated on the smallest unit; this determines the weapon (on all levels, individual; army-level). Distance is a vital element in determining all of this, as we shall see later.

This unit, this weapon, and its way of fighting, within its sphere of influence or interaction, dominates, and sets the form of war for a duration of time. Of course, if one form of war meets with another, one should triumph, and so this "rule" is not broken.

One might object that arms race could deftly explain change in, well, arms and the way of fighting, but there was no such thing, at least as we know it in ancient times; arms race is a relatively recent phenomenon, picking up its pace as it reaches today, when it is in full swing.

These at first glance simple observations may seem contrived for an obscure purpose (or none at all), but they are there to explain what guided man in an attempt to realise his intentions, in this case, war. They are, by all means, abstract and deduced as underlying history, its pavement, not the feet that walk upon it; they are not the "rules" that man consciously abided by when making weapons, but neither are they truly unconscious impulses, either. They are what may be read from history, but between the lines.

Now, accepting with reservation, perhaps, all of the above, you may wonder, what was so revolutionary about the "divide," besides the obvious? It is in what came prior, that is, in that it favoured one form over others, developing it to the extreme; that form then finally slowly losing, for quite some time now, any sense of internal order, maybe even being enveloped in its own retardation, and certainly its confusion.

I mentioned that it favoured one form over all others; this means that none was favoured before, that is, none remained so long in use, none dominated in such a long time. The diagram above may seem simple, but it is not so straight forward

Heterogeneous armies of feudal states are so because of their distinct territories, but under one command. This is true "decentralized" government. Its advantages are in defence, as it seems to me. Likewise, a centralised unified government has an advantage in attack.

It can be seen that decentralizing and regionalising the state (and its army) is often done in history to better respond to foreign invasions, making flexible, rapid-response armies, able to answer on their own or at least contain the threat for long enough for reinforcements to arrive. This is what happened in the Roman and Byzantine empires. Politically and economically, this is the foundation of feudalism.

Contrary to that, centralised authority is strengthened by conquest, and it doesn't matter what philosophy one follows.

The way a realm defends itself in feudalism is based on individual forts and castles; unified empires like the Roman and the Chinese instead build large walls to keep out the barbarians. It is all a matter of scale.

What I said may make one think that war influenced man alone; the so called "state of exception." To that I may answer that I am not certain, but believe that even if its influence is great, we must remember that without society in general it would never exist.

V

A state or authority that projects its army on the battlefield, creates a separate part of its self that can be destroyed (used and sacrificed) without (or not crushing) consequences to that state. It is vulnerable, but it also has a chance to recover, as the Romans did after Cannae. So the state creates a separate body for purposes of war.

If a weapon is individual (more defensive) in nature, it necessarily draws and represents the entire state or authority in conflict, or at least its head. It's not about the quantity of individual weapons (whether these are knights or rockets), but the mode or form of warfare that the destructiveness of these

such a fate. But what mostly happened is that these walls outlived their use-the city spread beyond their confines.

Walls served not only to protect but also to regulate the expression of violence and aggression of the city itself. Remember that Sparta had no walls, as was decreed by Lycurgus. Its men were its walls. This had an important influence on Spartan foreign politics. Because Sparta had no fixed lines of defence meant that it unleashed its own aggression. Remember also that the Greek hoplite is the predecessor of the phalanx, and had many of its qualities. Similarly to the phalanx, the Spartans are forced to attack because there is no defence behind their backs. The citizen-warriors of Sparta are a mobile unit being human beings, not stone. By that mobility man is dispo- sitioned for attack, by the inherent potentiality he possesses. This is why Spartans usually fought to the last man-the city always stood defenceless behind them.

Modern man is this Spartan, I claim, because modern civilisation and modern firearms forever proclaimed the uselessness of towers and walls, thus placing man in a state of perpetual aggression.

About the social and political order it seems to me that they in themselves, whatever they may be, do not influence the military order significantly. That is, ideological differences do not mark militarily-structural ones, because it seems that a functional army operates according to its own rules; not doing so would mean it is not fulfilling this function and would therefore not be a useful tool for serving the social or political order in the first place. War is to me something that Shmitt would perhaps place in the realm of the supralegal, or even further, suprasocietal.

So, the spatial characteristics of political units that make up or produce military units are crucial, not the ideology.

Whatever the ideology in question, a professional army means a consolidation of authority. This is not strange if we remember that revolutionary armies are popular in nature.

as it appears. Looking at it one could rightly say: well, we've progressed this far, of course, our most powerful weapons are the our atom and nuclear bombs-they require the greatest distance to be used safely, but they are also the most destructive we have. It is natural we should have arrived at this stage.

This is, of course, due to another element of war-technology. It is technology that allows for greater distance and greater destruction. But it is external-it is what we give to war so it can be waged. Of its interaction with war much has been said, but its influence is without coincidence of the greatest magnitude today; in periods of more or less technological "stagnation" it was certainly a crucial determinant of war, but as we already explained, one that is brought into its internal logic; war uses technology; sometimes they feed on each other-but war is not technology, nor its sole source of inovation, as is popularly argued (this is however today becoming more and more true).

Yet, these periods of stagnation are what take up much of military history; true, improvements are made; something is changed, and yet, things remain much the same; the instruments of war, the sword, the spear, the bow, and so on, are still there. The next question is, how did these provide the bedrock for the extraordinary jump and later development of the dominant-firearm based form of war of the post-Renaissance, and how could it be, that it could exist before itself?

This is because, as the forms are numerous and diverse, it is only by external classification that they can be recognised and supported. This is necessarily an artificial separation, as nothing stays fundamentally the same throughout history; It is important to remember that forms are created, they in no way constitute reality.

They may be, however, simplified according to their weapons; from there, one can determine the way of fighting, and consequently the form itself.

So, forms depend whether one man can do a job of a 100 people or not; or, one unit the job of a hundred units, and so

on. One or a hundred, according to different needs and circumstances. Maximally useful, for each time and age. Its important to know that people aren't important-the weapons are, or rather, the people are important, but as the controllers of weapons. If they weren't irreplaceable bound to weapons they wouldn't be so mercilessly slaughtered during wars. But they primarily serve to operate the weapons-whether axes or pistols. The form determinants aren't the best soldiers of an era, but ones that force change. They are not the best trained; they are the most effective, the ones that one cannot go to war without. And, each form is a unity of mutually influencing elements: from the weapons used to the strategies employed; this much is common sense.

However, even if determining the domineering forms according to the principles that define it is easy enough, it is not what I set out to do or find out, and that is, as is laid out above, answering the question of what provided the bedrock for a more or less easy transition to the era of firearms?

II

As one recognises various forms one also perceives (limited by material and technical possibilities) in the pre-firearm era two opposing tendencies, which seem to both balance and counteract each other. These opposites are best illustrated in their extremes, which would meet for the perhaps last time in the late Renaissance: the phalangite and the knight.

The examples are of course picked from history and they represent the two philosophies of approaching war that were available to the pre-modern man. Different gradations between the two are found throughout history, and the examples themselves do not completely represent the abstract qualities that I prescribe them, but they were chosen because they were according to my opinion the closest to what I had in mind.

Remember the "rule" of concentrating destructive power? Well, it still stands, but can be utilised on different levels, and different manners. So, the phalangite, on a personal, individ-

as very effective). It would remain an element of the rifle-its bayonet, for quite a while. Until the rifle reached its full potential, charges were frequent. Clausewitz explained it deftly: the attacker is the mover, the defender the moved. The attacker acts, the defender reacts. The attacker sets the rules, and that is why attack was favoured over defence. Besides, by attacking one fulfills the primary purpose of war-destruction. In any case, just because I credited the knights as the symbol of defensive warfare doesn't mean they never attacked. Closing in on the enemy is the primary goal, on any level. Either one brings the figurative weapon (the knight) close or the true weapon (the pike) close. But as I said earlier, the pike is the attacking weapon. I already explained why.

Paradoxically, man moved further away from the target in order to attack and destroy it better. One already knows what happened after the era of pike and shot warfare was over. Artillery was developed next, becoming more and more deadly. Machine guns were developed next. And then all the niceties of war familiar to us: tanks and airplanes. With the airplane came back in a very constrained form an element or former chivalry-honor. This is not just popular imagination-any form of war that allows for one on one duels will contain such an element. This lasted briefly, however.

It is interesting to note what happened to defensive walls at that time. Formerly, sieges were hard and costly, and commanders seldom engaged in them unless wanting to starve out the defenders or having a great advantage. When a city was taken, the walls were not demolished, except when the city was to be completely humiliated. City walls stood for the independence and freedom of a city to govern itself; its demolishing was a symbolic act of taking that freedom away. When most of Europe was under absolute monarchies, this happened much more often, for the reason of establishing royal control over these cities and their trade. Rebellious cities often also suffered

significant ways, because they do not need to. Egypt remains perhaps the most primitive in military technology of the ancient civilisations. Skip to the Golden age of Greece. Greco-Persian wars occur. The Greeks fight within a "shield wall." The Peloponnesian war occurs and other related conflicts; Greeks fight the Greeks. The Macedonians develop the phalanx and conquer Greece; they defeat the Persian empire. The wars of the Diadochi occur; the Romans defeat their greatest enemy Mithridates and all the Diadochi kingdoms. This is the ending of the second cycle. Rome is destroyed by barbarians. Slowly the kingdoms of Europe are formed. Paralleling the first cycle, there is a slow increase in armor and fortification. Similar weapons are developed by the end of these phases; the Late-medieval zweihander and the Nuragic great-sword are remarkably similar. The schiltron, the pike square and such formations are developed. The spear becomes the pike. Other such weapons are developed, the halberd, for example. This is the ending of the third cycle. There will not be a fourth.

The cycles are not fancifully produced; I am thoroughly aware that they do not parallel each other perfectly-they are a product of circumstance, availability of technology and materials. What I am trying to point out is that given these resources, the development of forms of war usually follows this path. This didn't need to happen, and didn't always happen. Civilisations may utilise the same forms of warfare and never reach the stage of the phalanx.

IV

Therefore, this is the cycle that firearms broke up with when they appeared. We often wonder, why did so many commanders prefer the attack or "pressing the initiative" given that such destructive weapons were invented, in both the tactical and the strategic level? The reason is rather simple-they still weren't maximally effective. The pike took a long time to disappear (this is why Maurice de Saxe wanted to revive the Roman soldier; he didn't consider the firearms available to him

ual level, actually disperses power, while concentrating it on the level of a functional "unit" or phalanx. The knight on the other hand, concentrates destructive power on an individual level, while dispersing it on the level of a unit. He does indeed fight together with other knights, but he was primarily trained to be an all-round individual fighter, a "one-man army," in a sense (even if it is, of course, an exaggeration).

These tendencies were formed by the primary weapons the warriors employed: the phalangites sarissa (a long pike) and the knights, for simplicity's sake, sword (I am of course aware that the knight employed a plenitude of weapons, including the lance, but the way it was used makes no bearing on my argument, at least on a rudimentary level).

The phalanx is made for attack. An effective, organised unit (the phalanx), has for its goal destruction, which means that its primary function was attack, not defense. The phalangites usually wore partial armor, that is, forward facing body parts were most defended. Its sarissae were completely turned to the front; the sides and back of the phalanx were completely exposed, which meant that the phalanx had to advance and force the enemy on its pikes.

It is reasonable that an effective organisation of the army requires distance between the army and its enemy, as out of the battlefield and so on it. The phalanx could not be organised as it is without having the leeway to operate without the sarissae, but without the organisation the sarissae could not be properly used. This is why distance was added as an element crucial to determining a form of war, and we will see its significance later on.

Instead of the knight lets compare something more historically close to the phalangite, something somewhat between the two - a late republic to early empire Roman legionary-and their methods of conquest.

Both were made conquering armies, but the way they went about doing it was different. I already mentioned the phalanx

as made for attack; contrary to it, the legion is a defensive force. How can that be, you may ask, when the legions did their fair share of invading and conquering? As I said, it was the way they went about the problem of conquest that differentiates them.

The main difference is obvious- the legionary fights at a minimal distance, in close combat after throwing the pila (or darts in the Late Empire); he is efficient in one on one combat, but most effective within the shield order with his comrades (the knight on the other hand, is mostly self-sufficient); the phalangite is near useless alone, and he fights at a distance (the length of the sarissa).

The legion attacks by fortifying the invaded area, and then dealing with whoever doesn't agree with them taking over; from these fortresses spring cities. The romans bring order (law) of their crossed streets (the military camp is designed with four sides and four gates on each side; the roads from each gate meet in the middle, this is the basis of the city); the locals soon find it attractive and populate it.

The phalanx is a moving fortress. Alexander founded cities as he went and where he wanted them. The Greeks conquered not with law/order, but by culture. The Persian and the Egyptian soon found themselves surrounded by Greek columns and going to Greek theaters.

Such are their distinct methods of conquest, exaggerated, of course, for illustration, but I believe still fundamentally true.

We see how the Roman method was brought to the extreme by the middle ages, but was still different. The knights fortified to the extreme, but as the example of conquest are sparse, as Europe was from the get go populated by castles, we can see it happen in the Holy Land, where powerful fortresses were built after conquest. The way and reason this was being done is as said different from the roman. The Romans established civic order (the city plan), the knights and lords brought hierarchical order (the fort on the hill; the farmland and village bellow).

appears again in the Swiss pike square, the tercio, and in the Netherlands in the innovations of Maurice of Nassau, who was inspired by the Macedonian phalanx, but this was already the beginning of pike and shot warfare. To note, even if all of these innovators were inspired by earlier models, the time must have been ripe to put them into practice, and therefore I would suggest that the innovations would have "naturally" come by themselves, even if no inspiration was at hand.

The historian would jeer at my rushed history of the phalanx and its variants, for a good reason. But I believe I am correct when I say that I didn't have much choice if I wanted to gather just such a history. There is still debate over how combat was conducted in the Homeric era, however, given the material evidence I don't think the testimony of Diodorus should be doubted too much.

In any case, the reason the phalanx was abandoned each time (the Greeks used shorter spears after the Homeric phalanx, and this entailed a slightly different way of fighting) is simply because it was not unbeatable. The Romans beat the phalanx proving this. It is thoroughly balanced by different ways of fighting, by different forms of war, and by a different tendency. We know this because it was only after its reach and power were so extended and amplified that it could so firmly set its place in history. Formerly it never was the "ultimate" way of fighting.

Following the repetitive appearances of the phalanx, and the logic of improving armor and weapons with the available technology, the history goes as follows. From the hypothetical tribal warfare with ranged weapons, close combat weapons were utilised. An improvement in armor (shields, helmets, cuirasses) followed, along with more powerful weapons to combat them. Fortification happens also at this time. Then the pike is developed. This is the Homeric phalanx. Bronze age collapse happens. This is the ending of the first cycle. The neighbours of the Greeks do not advance militarily in

least seems to be in principle. We can deduce this from the conclusion that ranged warfare is not made to be decisive (though it can be). "Primitive" villages engaged in continuous warfare with their neighbours for what for us can seem ridiculously long periods of time, not one village emerging as the decisive victor. We indeed have examples of primitive people using mainly ranged weapons in these tribal wars. There are casualties-these weapons are indubitably deadly; but it rarely happens that entire villages are slaughtered. When this does happen, it is a sign of organisation, whether it is a momentary inspiration or a sign of things to come. Instead of shooting and hiding from each other, one side came up close and eliminated the enemy without mercy. Something like that is reported of Shaka Zulu and his "reforms." It is said that his neighbours used to throw their spears; Shaka kept these weapons but also made ones for hand to hand combat. Using such weapons requires rudimentary organisation and the use of crude formations. These were also developed by Shaka, with which he defeated his enemies and formed a kingdom. This is why I believe that tribal-level peoples mostly utilised ranged weaponry-because of the military and civilisational achievements of higher organisation that came after it.

After this initial stage of the "common battle order" with simple formations, there is I believe an increase in armor, fortification, and shorter weaponry. I have in my mind the warriors of the Nuragic civilisation and the Sea Peoples. Then the simple formations evolve into the first proper phalanx, seemingly not of the same complexity as the Macedonian one, but still pretty close. This is the Homeric phalanx, and also as it seems the Hawaiian pike formation. The Homeric phalanx answers the increase of armor and counters it successfully. And then, it is no more! The Greeks will not fight in a phalanx until the time of Philip (Diodorus Siculus says he was inspired by the Homeric) and his son Alexander. The phalanx will be used until the Diadochi kingdoms were conquered by the Romans. It

Given we accept all of this, the two tendencies may be named according to the two modes of acting in a war: the attacking and the defensive. These are unfortunate names, because we should not associate the way someone would use an army with one or the other tendency that the army is associated with, but that the army is itself (through its weapons and organisation) invested with the "spirit" of attack or defence. Therefore, I would place the phalanx as the example of an attacking tendency, and the knight as of the defensive tendency.

So much for that. It's also important to have a word on the weapons (available to the pre-modern man) themselves. First off, I placed the pike or sarissa as exemplifying the attacking tendency because by its length (or distance) it permits (or demands) organisation, organisation allowing for greater control, and greater control allowing easier fulfillment of the objective of war-destruction, and an army equipped with it cannot allow itself to get walled up; it attacks, even in defence. This is simple reasoning. Weapons like the axe, the short spear, the hammer, the mace, the sword, and a myriad of other such weapons, instead, while when used are usually grouped, are most often thrown in the fight without much order, much like the Gauls and Germans the Romans faced in their conquests. Swords (developing as it seems from knives and daggers) seem to be on the other extreme; they are versatile and individual weapons; Musashi credits them as spawning the first (weapon-based) martial art. A person best uses them while alone. A pike "gives" itself to the opponent; the sword keeps to its owner. Simply put, the shorter the weapons, the more defensive they are.

I hope the reader is getting a clearer picture of what I am getting at. Let us continue. I hope that by this, these tendencies, as exemplified in the former examples, and manifested on various levels of organisation, are explained.

III

I deliberately omitted ranged weapons from the above listing of weapons for a purpose. I placed the pike as the example of the attacking tendency by virtue of the organisation allowed by its distance from the enemy. But doesn't a ranged weapon, such as the bow or the javelin or the sling also allow such a distance? The answer is yes, but it doesn't allow for an equivalent organisation. Why can be primarily seen through the physical characteristics of the mode of using the weapon itself and its effectiveness; also, importantly, its decisiveness.

First of all, the bow never or extremely rarely made up most of the army, except in the beginnings of tribal warfare (I will explain in a bit). In order to be effective, it had to be used in great quantities. The bow is an effective weapon on its own, but in battles where the enemy is approaching in great numbers, great speed and adequate shielding from the arrows, it couldn't be truly used to its full potential, whatever the exceptions may be. Favorable terrain, weather and the use of spiked barricades allowed for a brilliant victory of the English at Agincourt, where the longbow made up most of the English army. Nevertheless, even if we count in other battles around that time, all of this, even if it could be called an exception, is still not a very clear one.

As I said, though ranged weapons were very useful and extremely effective weapons, they never did quite operate as the pikes did. Ranged weapons in the long end lacked the directness of pikes; this can be seen with the utilization of the mass volley, which peppers the enemy from the above, in an arc. Directness simply asks for decisiveness, and thus naturally dominates.

There are other reasons, such as the time it took to train an English longbowman or a Rhodian slinger, but although significant, I believe these are of minor value in contrast to the way these weapons are actually utilised. One must remember, although I speak of what are considered indispensable elements of a well equipped army, be it ranged weapons or sometimes cav-

alry, they are nearly always not the decisive element or one that forms the true core of a force. Speaking of the cavalry, much has been said of the knight and his horse, but the horse is a way of giving such like warriors an artificial dynamism and mobility that they normally lack. Just as the bow makes up for the lack of available distance, so the horse makes up for the lack of mobility and impetuosity. It can be the determinant form, but generally never for too long.

The early firearms are the successors of pikes, not bows or crossbows. They rendered both obsolete, eventually, but the bows were the first to die not because the firearms replaced them directly, but because they expanded the tendency inherent in the pikes, extending the reach of the pike square, in a direct manner. In a way, the pikes were directly replaced, the bows indirectly. The arquebus and the musket inherited the pike formation, and then simplified it, thinning it more and more as the gun became more and more powerful and its range increased. This is divide I was writing of.

Before we continue on the nature of firearms and its succession of pike warfare, a general, highly-simplified history of the development of weapons may be given. This is tricky, of course, because most weapons coexist at the same time. Nevertheless, if we make a historical sandwich with ingredients from various "times" in history, we can make something that seems to follow progression according to what we know to be its highlight, the ending of a cycle-the formation of the phalanx. Why is this the ending? Because we see it develop continuity in history only to always later disappear back into obscurity; generalised (of mixed weapons) forms of warfare that preceded it again succeed it; the phalanx, when it appears, seems not to last long (we will explain why this is so). Also-because from it proceeds the form that broke with all other previous ones, and was favoured by technological progression above all others.

Formerly I wrote that ranged warfare constituted the most of unorganised tribal warfare. This is somewhat true, or at