



Officer academy

3: Tactics, strategy

Contents

- Battle formations theory.
- Tactics: Transport, Battle field movements.
 - Tactical units.
 - Cavalry, infantry units composition.
 - Lining up.
 - Marching formations.
 - Tactical drills.
 - Infantry formations.
- Strategy: Plan, stratagems.
- Simulations.
- Sources.
- Questions.





Formations theory

- Goal:
Maximize enemy losses.
Minimize own losses.
- Without people to lead, officer is just a man.
- Battle formation: **Tool** to get advantage.
 - Allows defeating numerically stronger enemy.
 - Adapts to terrain, numbers and weapons of both sides.
 - Plain open space leads often to victory of numerically stronger side.
 - Battle field with obstacles can prevent the advantage of numerically stronger side.
 - When all conditions are equal, better tactician wins.
- Main target:
 - **Gain reach (or firing range) for own troops.**
 - **Reduce reach for enemy troops.**
- **Reach, initiative, speed and cooperation** are key factors.

Tactical units

- Cavalry:
 - 1/3 of each unit should be attackers on flanks. 2/3 defenders in centre.
 - Cavalry unit depth composition:
 - First one and last two are lancers.
 - Third and fourth archers.
 - The rest according to what they are most experienced with.
- Advanced Attacker units.
 - Wolf packs, Outflankers.
 - Ranged unit (Archers, Slings, Javelin throwers).
- Defender units.
 - March in formation, provide refuge to attackers.
- Support: Flank protection.
- Encirclement units: Outflankers, Ambushers, Flank guards.
- Medics and Water bearers march behind formation.



Infantry unit composition

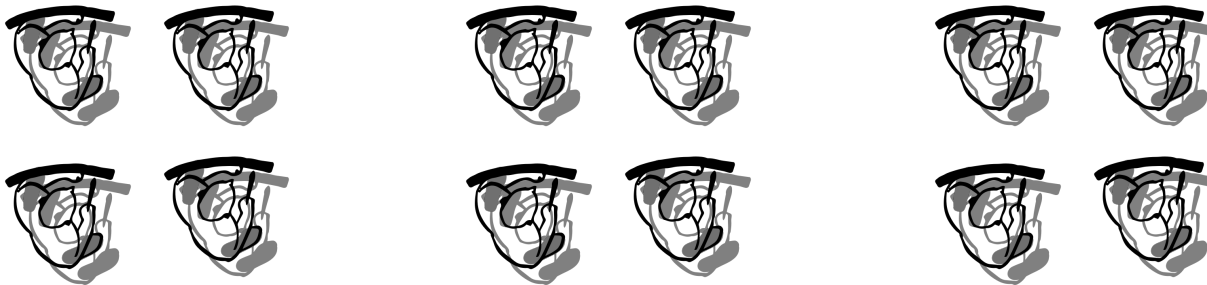
- Heavy armored troopers in front, light in back.
- Archers:
 - Ratio: 1 archer to 4 heavy infantrymen.
 - Placement:
 - In second row.
 - Alternating in front with heavy troopers.
 - Supporter role within tactical unit.
 - At the flank edges of Rank formation.
 - Standalone archer unit at flank with support of several heavy troopers.
- Slings, javelin throwers:
 - Always behind heavy ones or at the flank ends. Never at the center.

Lining up into formation

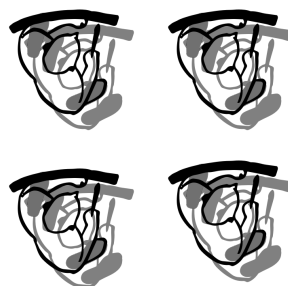
- The position of the units in the formation is determined at a meeting of the Lords and commanders the day before the battle.
 - Each squad is autonomous.
 - The Lords themselves determine which of their men can reinforce other troops.
 - The meeting is a place to determine the position and involvement of guest troops.
- When lining up into battle, each tactical unit commander is reminded or quickly briefed on his duties and his part in the battle plan.
- Lining up:
 - Behind standard bearer, the First line: Outflankers, Ambushers, Right Flank, Center, Left Flank, Flank Guards.
 - Behind standard bearer, the Support line: Right Flank, Center, Left Flank.
- Quick line up: Every tactical unit forms column behind its own banner, marches to its dedicated place.
- Before battle: Main standard stands to the right next to formation, then goes to center of Support line.
- Slow defile: Column in pairs follows banner.

Marching formations

- Espionage: Long term scouting, surveillance, mapping, gathering intelligence.
- Foraging units.
 - During march they go in front of the main unit.
 - Scouting, finding good roads and camping places.
- Planners: Measure and plan camp construction.
- Baggage train: Wagons+animals: Supplies, tents, munition, drugs, servants, dogs, birds..

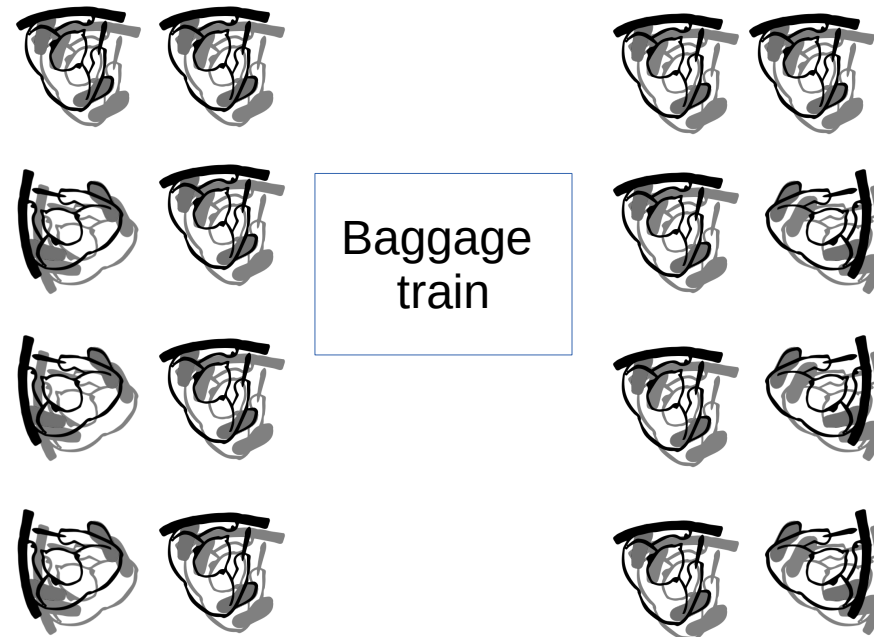


Baggage
train



Marching formations

- Column, file by two, by three, phalanx..
Always according to ground.
 - 3 phalanxes in a line.
Baggage train behind,
then rear guard.
 - Two double columns.
L shields, R shields, baggage inside.
- In danger baggage train is in center.
Troops go always unburdened.
- In battle the baggage train
follows the second line, train flanks
are protected by rear guards.

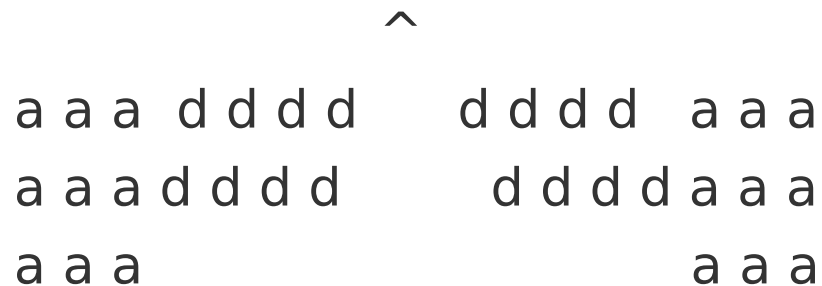


Battlefield movements

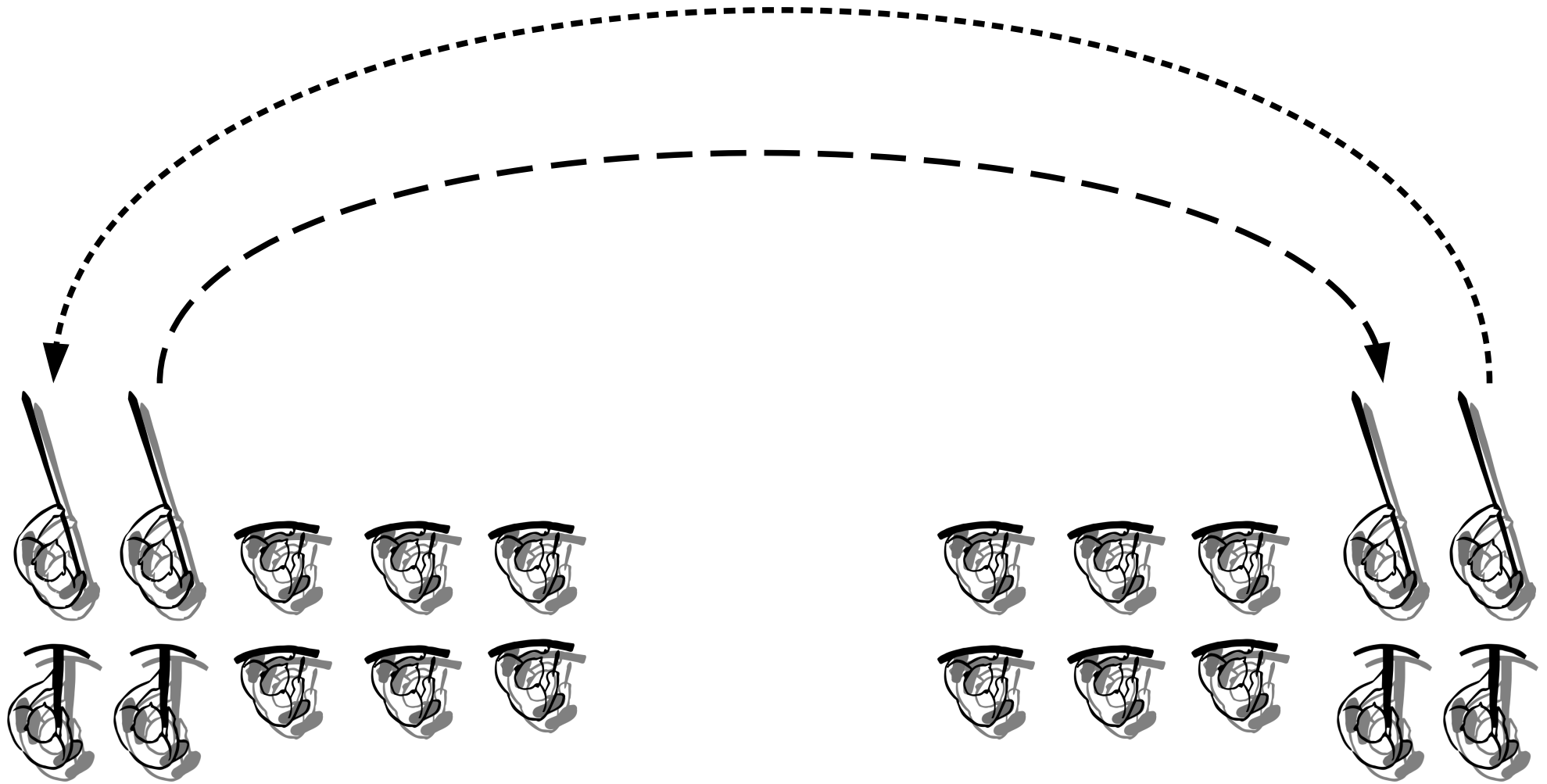
- Before fighting:
 - Standard-bearer lines up from marching column into battle formation.
 - By turning left and right, S-shape, he can craft formation in depth.
- Cca 2 seconds for timing encirclement, pincers manoeuvres.
 - Tunnel vision timing.
 - Reaction timing.
 - At least 6-8meters/4-6 steps brisk walk.
- Replacing 1st rank, double rank: Affects fight expectations, planning.
- Advancing or slowing down flank affects reach.
- Agile autonomous attack units with long range weapons.
 - Outflankers, Wolf packs, Ambushers, Archers, Cavalry with javelins.
- Attackers (archers) are included both in flanks and center.
- Unfolding of Line formation. Byzantium while marching.
- Byzantium against surprise attack.

Tactical drills #1: Scythian

- Mixed defenders and attackers, split in two groups.
- No dedicated defenders or attackers.
- Flanks composed of cavalry or light infantry - attackers.
- Both flanks come forward as to encircle, then advance towards one another, and surrounding open space, right wing outside, left inside, they ride into opposite section of one another's line.



Tactical drills #1: Scythian



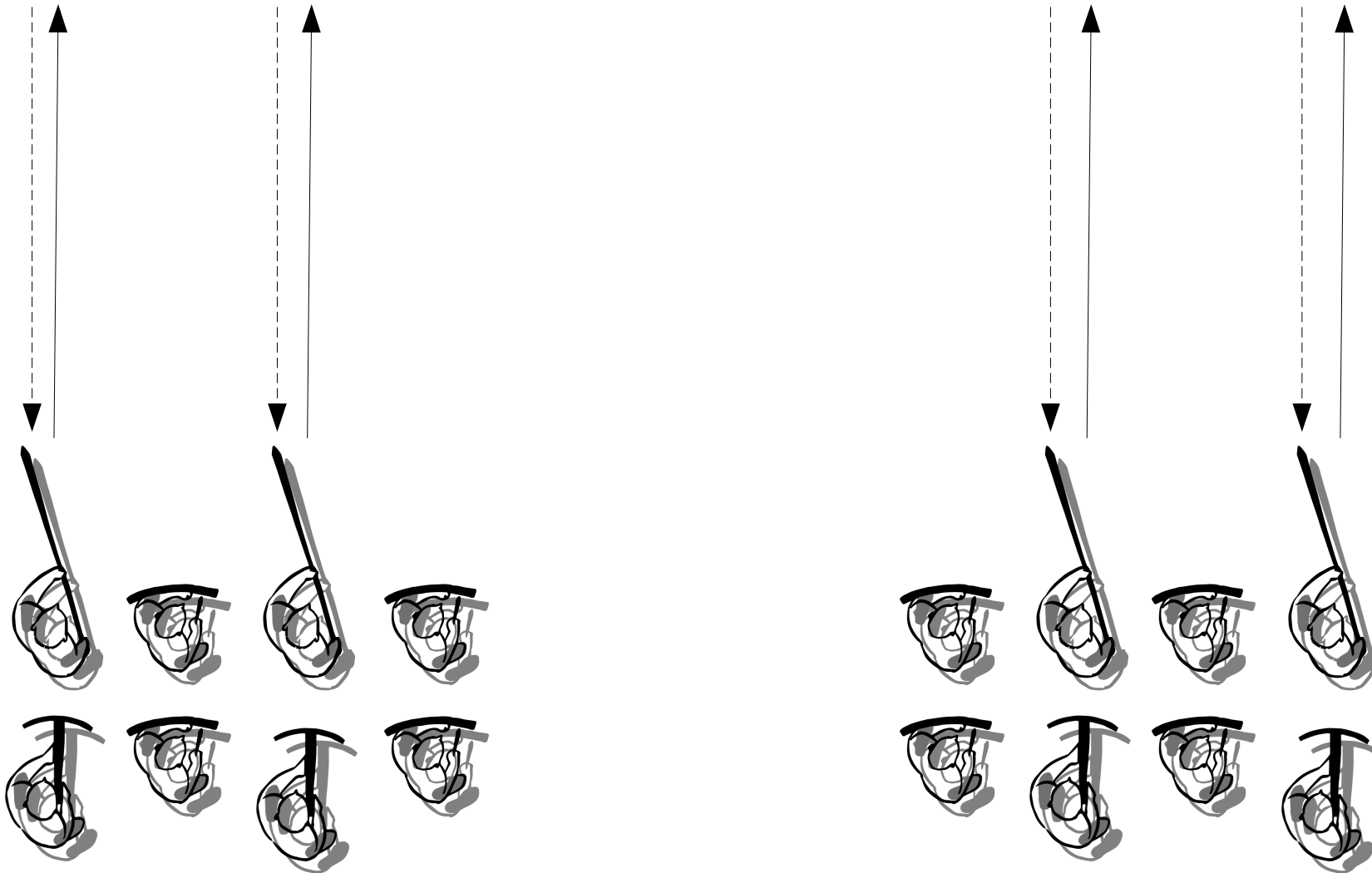
Tactical drills #2:Alan

- Attackers and defenders in one Rank divided into blocks spaced 10-30 meters.
- Attackers sprint like for pursue, then return back to their original spaces or into the big space between blocks.
- Then come into attack with defenders.
- Alternative:
After attackers return to big middle space, they will come attacking from both flanks.

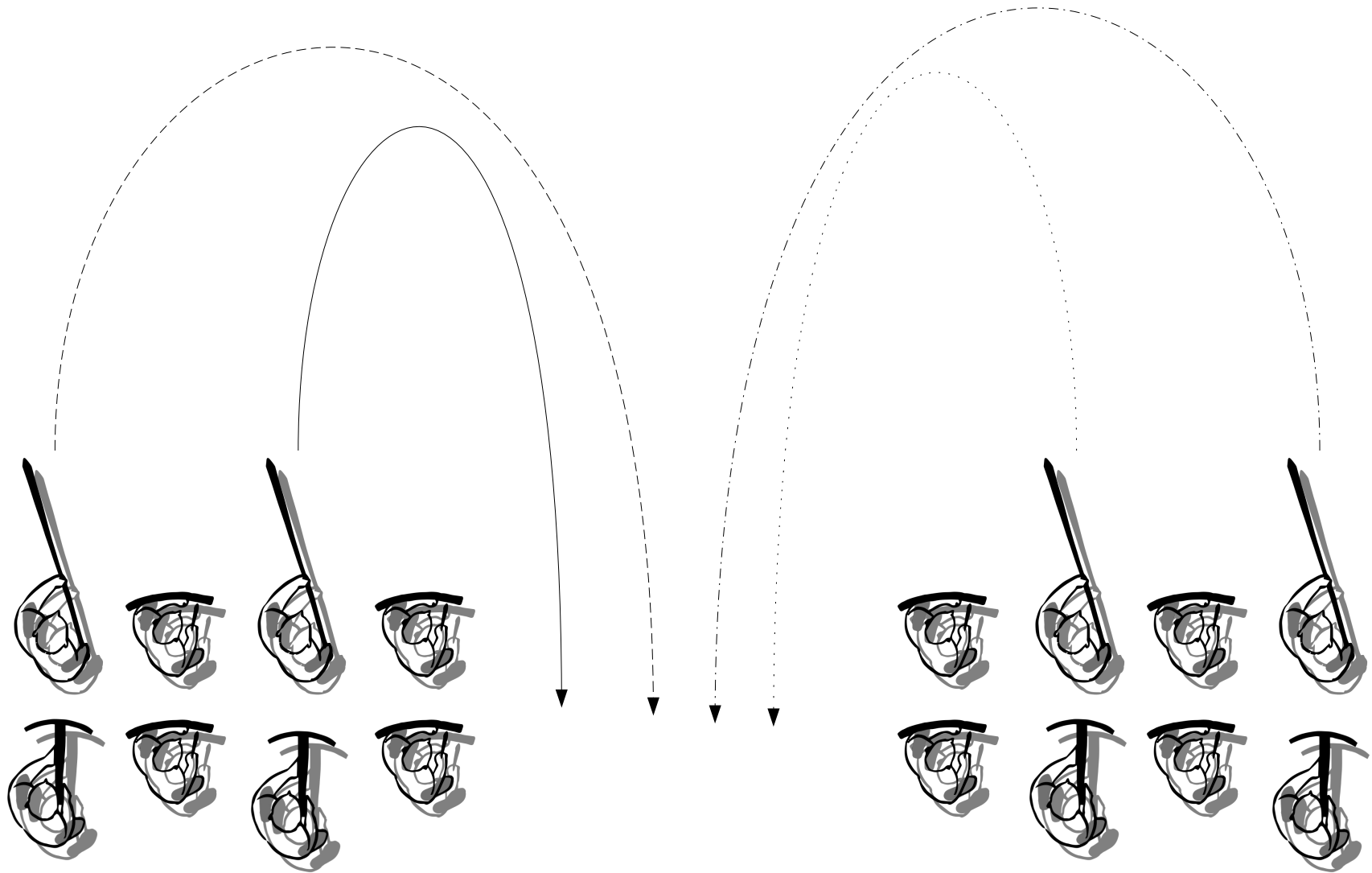
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Tactical drills #2: Alan



Tactical drills #2: Alan



Tactical drills #3:African

- Center = defenders, flanks = attackers.
 - Illyrykian drill: Reverse roles, same movements.
- Center lags behind, flanks get in front.
- One flank holds position or slows down.
 - Second flank returns to defenders.
 - Slowed flank begins return.
 - Second flank goes forward to face the first, without colliding.

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Tactical drills #4: Italian

- Two lines. Front one. The second Support line is few dozens meters behind.
- Front: Flank guards/left outflankers(k), left flank (l), defenders (d), right flank (p) - RF.
- On RF **attacker units**: outflankers (h) encircle, then hidden ambush troops (d).
- Outflankers: min 1, max 4 depth due to reach. Front line max 16 depth for pressures.
- Front line contains shooters - ranged attackers - javelins, slingers, archers (s).
- Enemy equal: Flank guard spreads left to fit his right wing. Outflankers encircle.
- Enemy weaker: Flank guard encircles him from left, outflankers from right.
- Enemy significantly longer on both sides: Attack with our center ahead of other units.
- Enemy encircles left flank: Second line attacks his rear.

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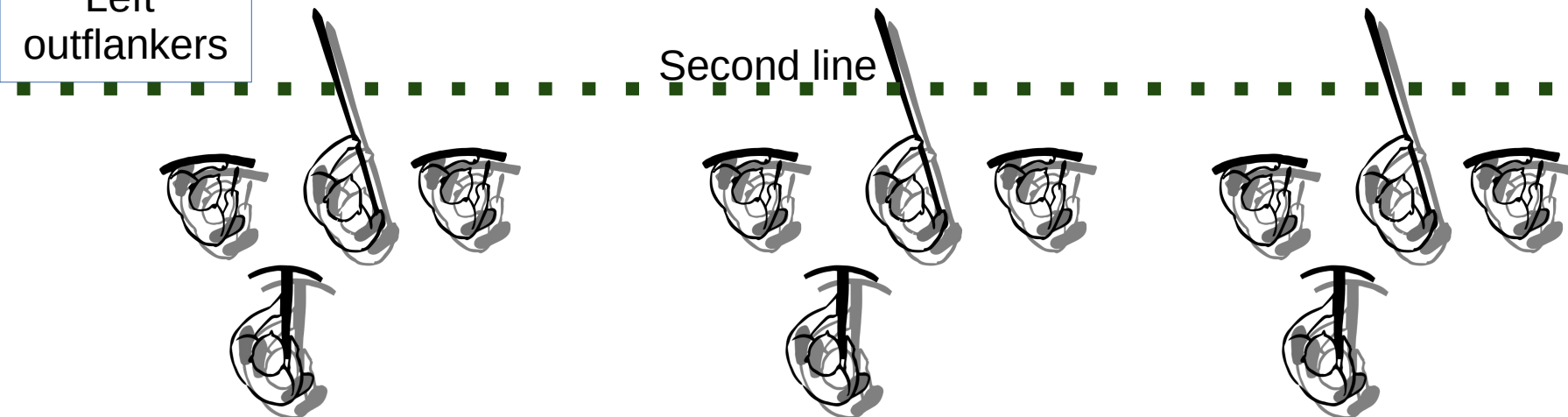
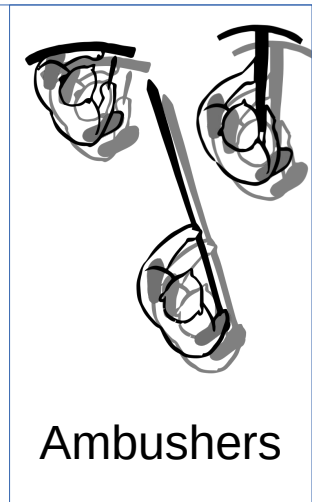
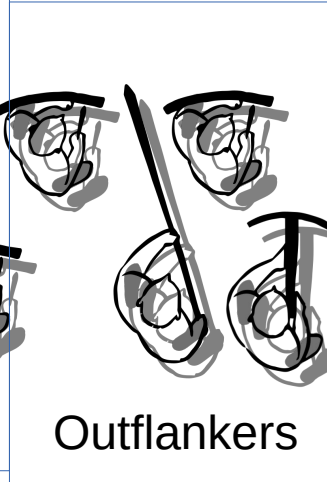
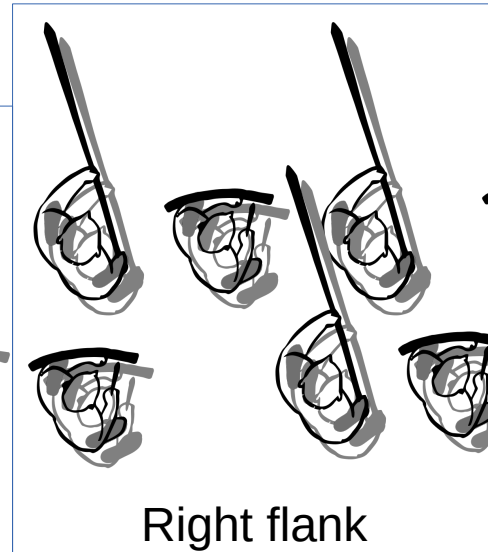
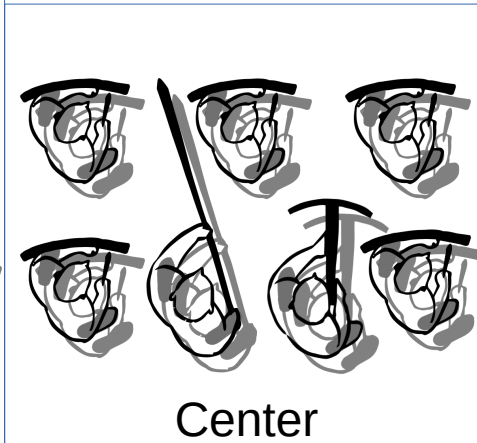
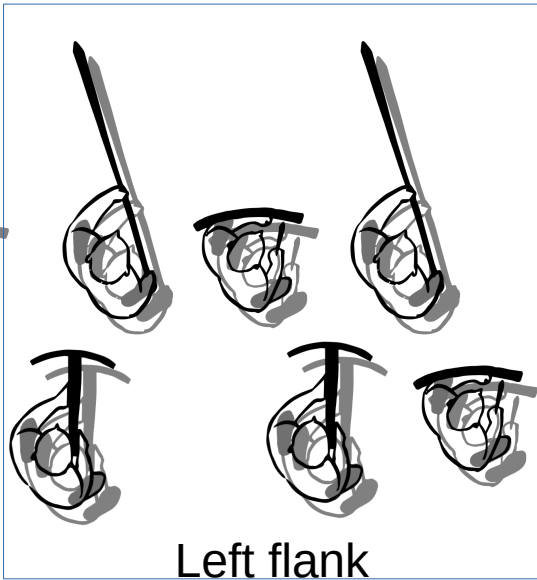
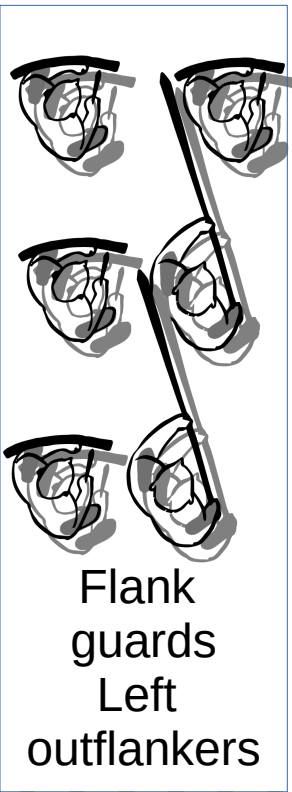
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Tactical drills #4: Italian



Tactical drills #5: Outflankers

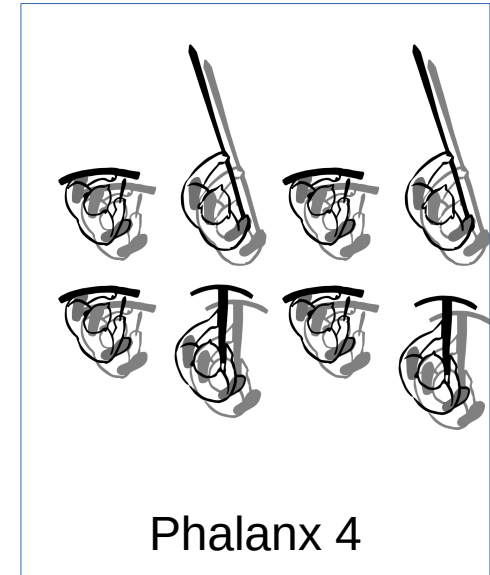
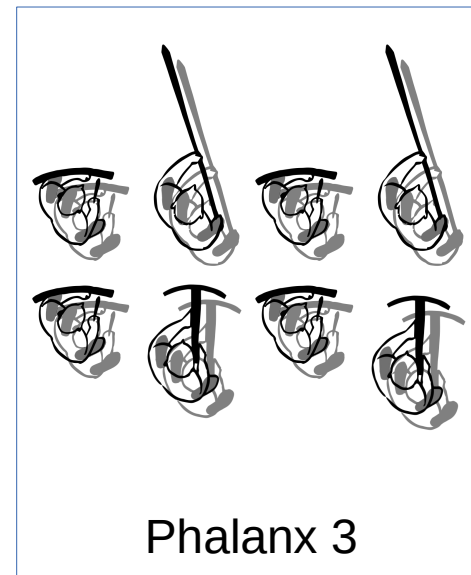
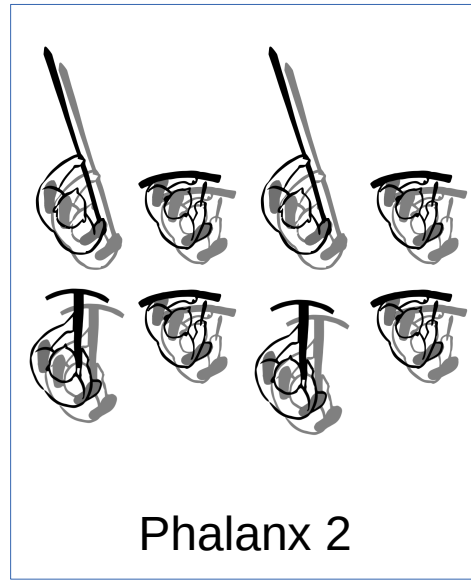
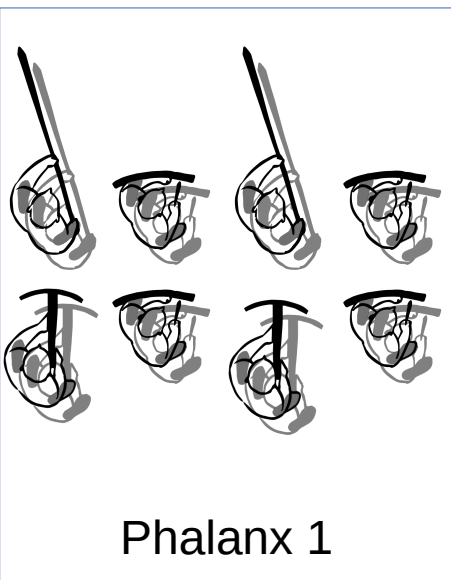
- Outflankers and ambushers are hidden behind right flank or within.
- Maintain formation, launch so far into right as needed, then return quickly to encircle enemy line.
- Flank guards similarly extend to the left, then return to their position, maintain length of our First line to be on par with enemy.
- **Important** is to estimate correctly how far into side go to **time properly the return and perform encirclement.**
- Alternative:
 - Flank guards perform right angle backwards using the same length as enemy encircling unit.
Support line is ready behind flank guards.
 - Let enemy reach the rear of flank guards. Flank guards front tip launches to the left, forms wedge and isolates the encircling unit.
In the rear our support blocks them. Crush the isolated enemy party.

Other drills

- Light infantry in thick Wall formation in front.
- 10 steps behind Second line of sparse Rank of spearmen and heavy infantry.
 - Wall poses visibility obstacle.
 - Attacker goes after simple prey, is surprised by change.
- Front wall dies, their bodies form obstacle, attackers can't cross them back easily. Second line crushes attackers enclosed by obstacle.
- Alternate behaviours of the First line:
 - Step back into empty rank spaces of the Support line.
 - Let enemy pass through center Causeway, close behind them.
 - Let enemy pass through and run to encircle his flanks.
- Alternate composition:
 - Light infantry Wall in front.
 - 10 steps behind Second line - sparse rank of archers.
 - In spaces of archers' rank, 2 steps behind: Pairs of spears and shields.

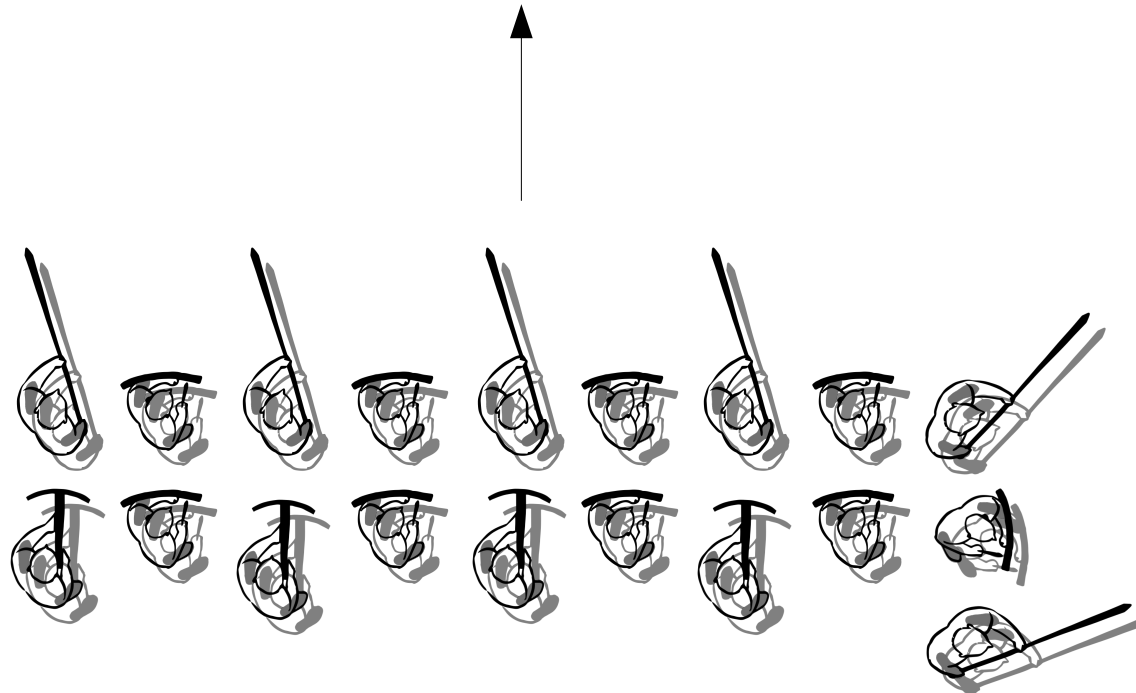
Infantry formation: Lateral

- Lateral formation looks impressive.
- Is useful in open country.



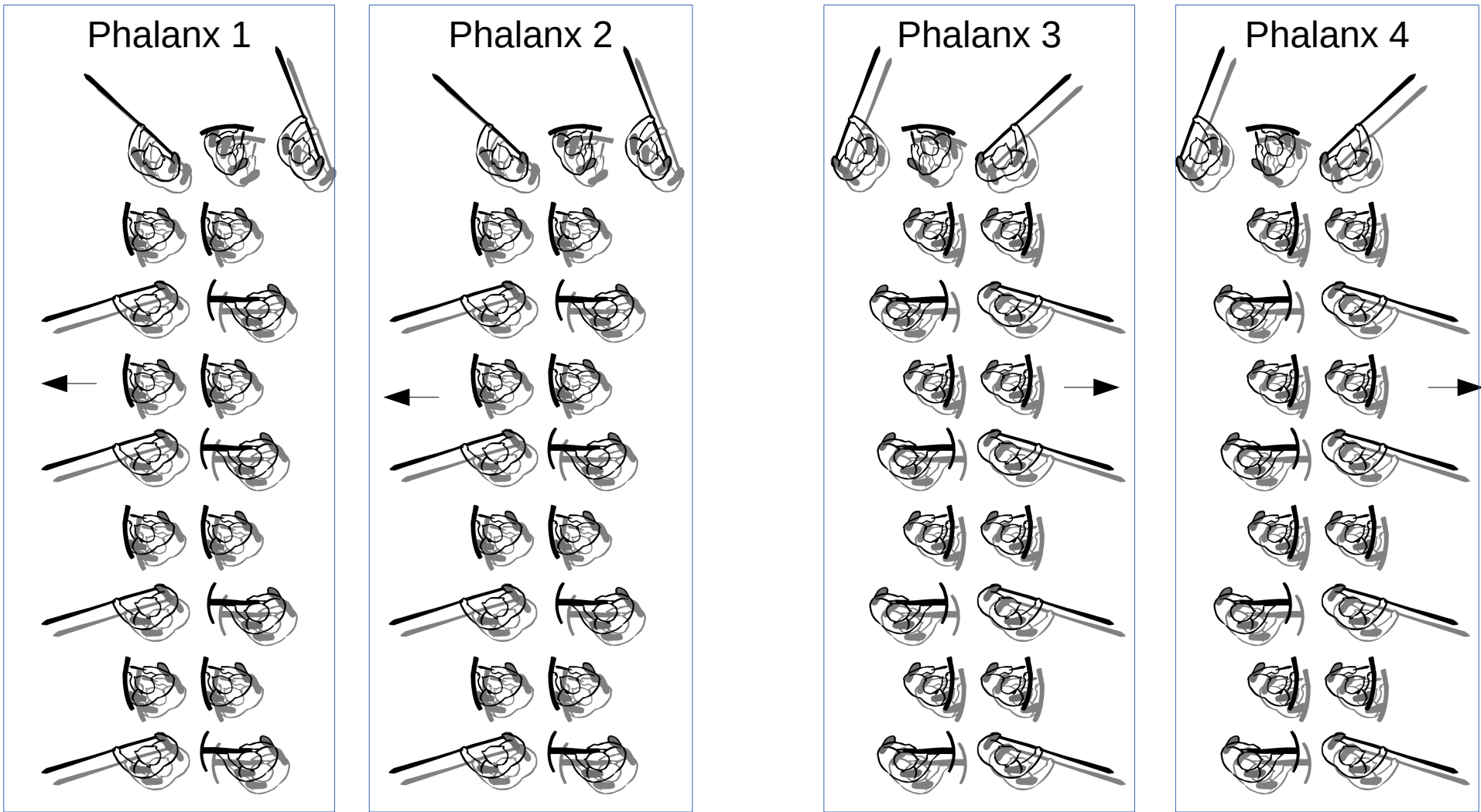
Infantry formation: Simple

- Simple column or phalanx = basic.
- Suited for use in narrow passes and where there is only one road.



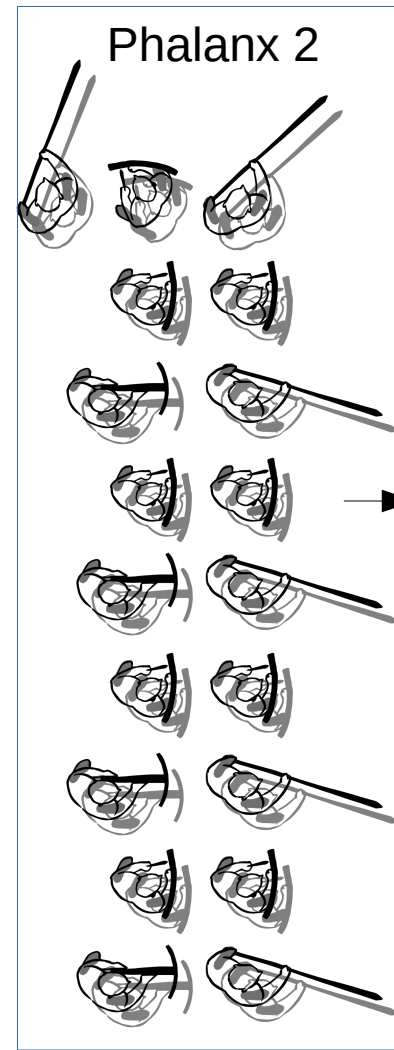
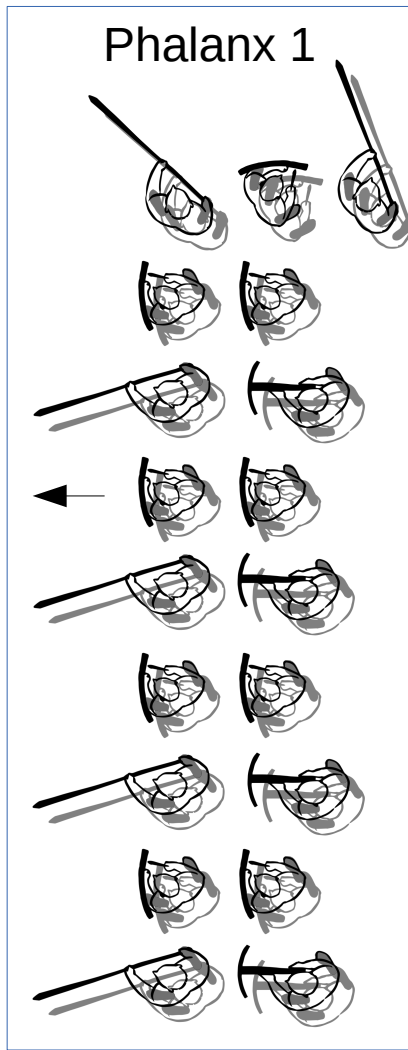
Infantry formation: 4 in line

- Four phalanxes in line.
- Infantry force is very large and ground is favorable.
- Traverse area more quickly. Easier to change front to flank.



Infantry formation: Double

- Double phalanx. Necessary for thickly wooded areas.
- Refuge and rallying point for the light infantry and cavalry.
- Provides protection to baggage trains.





Strategy: Plan, stratagem

- **Strategy is deception, traps, surprises, unpredictability.**
- **It's easy to fall in own trap.**
- **Hence it's necessary to drill basics, conceal the master plan.**
- Leo VI: Arabs know and use Roman tactical manuals.
- Warfare is like hunting.
 - Scouting, laying nets, lying in wait, stalking, circling around.
 - Don't use sheer force, this is very risky and costly.
- Enemy superior in cavalry. Destroy his forage.
- He is superior in troops: Cut off their supplies.
- His army is composed of diverse peoples:
 - Corrupt them with gifts, favors, promises.
- Dissent among them: Deal with their leaders.
- They rely on spears: Lead them into difficult terrain.
- Archers: Line up in the open, force them into close hand-to-hand combat.



Strategy: Plan, stratagems

- If the enemy has a very strong force of archers, watch for wet weather, which affects the bows, then launch attack against them.
- Against Scythians or Huns launch assault in February or March when their horses are in wretched condition after suffering through the winter, and proceed as just suggested for attacking archers.
- If they march or make camp without proper precautions, make unexpected raids on them by night and by day.
- The foe is superior in infantry: Entice him into the open, not too close, but from a safe distance hit him with javelins.
- If they are reckless and undisciplined in combat and not inured to hardship, make believe you are going to attack, but delay and drag things out until their ardor cools, and when they begin to hesitate, then make your attack on them.



Strategy: Plan, stratagems

- If there are obstacles on the field, let enemy cross them, so they are in front of them, and then attack.
- Surprise reduces enemy morale. Let them never know what to anticipate and prepare for.
- When both sides are equally well armed, the better tactician will win.
- In battles and in every action against the enemy the wise general, even the most courageous, will keep in mind the possibility of failure and defeat and will plan for them as actually occurring.



Strategy: Plan, stratagems

- Wind, dust, sun into eyes.
- Fight uphill.
- Fight downhill.
- Fight between trees.
- Deny enemy the vision, use terrain, trees, bush, thicket...
- Double phalanx (backup).
- Outflanker units. Outflanking and anti outflank manoeuvres.
- Archers, slingers, javelin throwers. Place in formation. Usage.
- Feign retreat, ambush enemy by hidden unit, retreaters turn back to attack.
- Ambush directly follows the ambassador with peace conditions.
- Ambush the enemy camp with ranged weapons from 2-3 directions.
- Ambush the enemy marching formation.
 - Ambush units supported by units distributed along the path of retreat.

Simulations

- Chessboard + pieces.
- List of tactical problems to solve.
- **Maps** + Model figures.
 - River with ford.
 - Swamp.
 - Hill.
 - Depression.
 - Mountain pass.
 - Bush.
 - Forest.
 - Sun.
- Desk games inspiration - Warhammer 40000, etc.





Future themes

- Outflanker units: Training, signals, command, drills.
 - Ideal weapon compositions.
 - Wolf packs, 3-5 members.
 - Shield + long spear + bow/sling/5-10 javelins.
 - Shield + halberd + projectiles.
 - Spear and bow, single man.
- Archery units: Training, signals, command, drills.
- Scouting units: Training, signals, command, drills.
- Soft armor construction.
- Shield construction.
- Suggestions, ideas ... ?

Sources

- 512 BC Sun Tzu: „The art of war“
- 136 AD Lucius Flavius Arrianus: „Techné taktiké“.
- 450 Flavius Vegetius Renatus: „De re militari“.
- 550 Maurikios: „Strategikon“.
- 820 Hrabanus Maurus: Comments on Vegetius, Frank army exercise descriptions.
- 900 Leo VI.: „Taktika“.
- 1119-1307 „Templar rule“ (Latin rule).
- 1265 Alfonso X: „Siete partidas“.
- 1618 Adam van Breen: „De Nassavsche Wapen-Handelinge“.
- 1645 Mijamoto Musashi: „Book of five rings“
- 1850 US Army WigWag signals.
- 1936 „Rukověť pro aspiranty a důstojníky v záloze“. Vědecký ústav vojenský. Praha.
- 1939 Reibert: „Die Schützenkompanie“.
- 1983 Vševojsková operační a taktická terminologie:
1. díl - Vojenská věda, operační umění a všeobecná taktika. Praha.
- 2017 U.S. Infantry Training Circular 3-21.60 (FM 21-60).

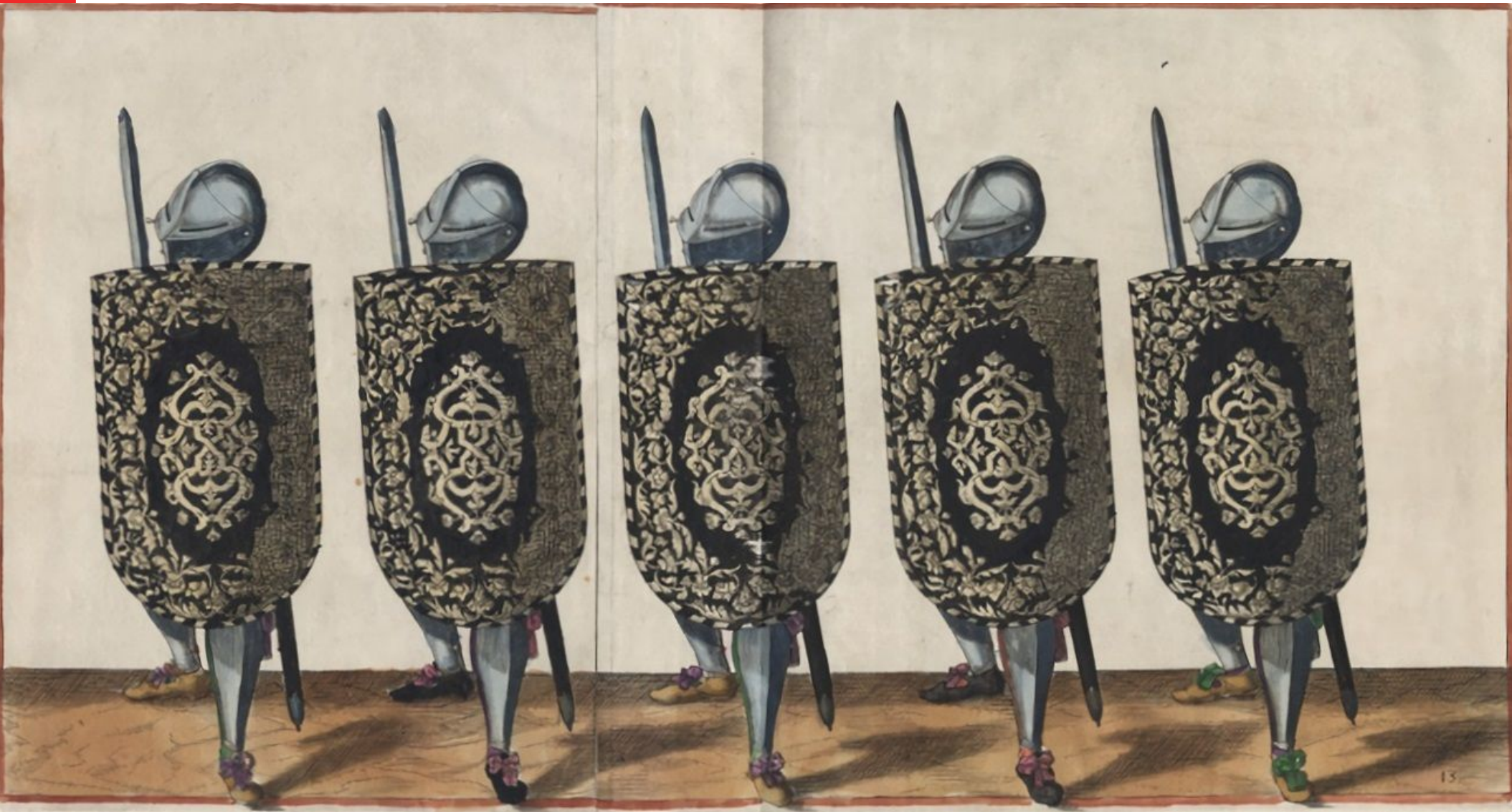
Credits

- Alfonso X. Unambiguous declaration of armor requirements, battle formations, hundreds of detailed illuminations. Partidas.
- Arrianus, Vegetius, Mauricius, Hrabanus Maurus, Leo VI, Maurice de Nassau: Great sources.

- Gentlemen from Bílá, Blatná, Dobřenice, Javornice, Hrádek, Kravaře, Libiš, Lomnice, Loupežník, Němčice, Nové Hrady, Rabštejn, Sonnberg, Strakonice, Štěkeň, Štítná, Vrcov, Wrauu, and others from project of Queen Elizabeth Richenza court.
- Dagfari, Dwarf, Vojtěch Půlpán, Rogan and other Czech reenactment military commanders.
- Eva and Honza Hans Hoffmann for support, experience, manufacture, long company.
- Pero Cornel for Spanish commands and long fruitful cooperation.
- Tomáš Zach for illustrations.

- +Many others willing to share experience.

Questions, discussion





**Officer academy
3: Tactics, strategy**

Vít Hrachový <http://kastilie1312.cz> - <http://facebook.com/kastilie1312> Mar 8. 2025
Illustrations: Tomáš Zach

The image is a medieval manuscript illustration depicting a group of knights in full plate armor. They are shown in profile, facing right, with various surcoats and helmets. Some knights are holding long spears or pikes. The background features a decorative border with a repeating floral pattern in blue, red, and green. The overall style is characteristic of 14th-century manuscript illumination.

Cantigas de Santa Maria Florence 408-1-2.

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Lapidario 228-4



Formations theory

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 - Minimize own losses.**
- Without people to lead, officer is just a man.
- Battle formation: **Tool** to get advantage.
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One has to learn to handle the tool first, then the tool becomes useful.

Swordplay duel is about speed, reach and biomechanics (tempo, measure, biomechanics).

Group fighting use the same, but on group level. Teamwork, cooperation, work with reach on basis of teams, squads, whole tactical units.

Sergeant-officer takes care of his people.

His task is their survival.

Officers' work is similar to top level sport coach.

Care for soldiers, selecting optimal tools and equipment, teaching and expanding key skills for fight and survival, preparing the path, so they are ready to make the best performance.



Tactical units

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 - Always behind heavy ones or at the flank ends. Never at the center.

Strategikon, pg 143-149



Lining up into formation

- The position of the units in the formation is determined at a meeting of the Lords and commanders the day before the battle.
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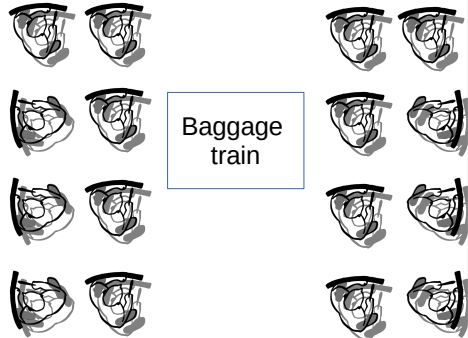
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 - Scouting, finding good roads and camping places.
- Planners: Measure and plan camp construction.
- Baggage train: Wagons+animals: Supplies, tents, munition, drugs, servants, dogs, birds..



Marching formations

- Column, file by two, by three, phalanx..
Always according to ground.
 - 3 phalanxes in a line.
Baggage train behind,
then rear guard.
 - Two double columns.
L shields, R shields, baggage inside.
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Battlefield movements

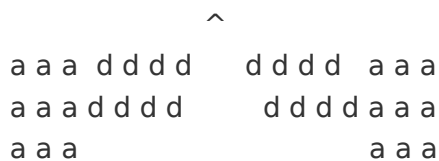
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- Byzantium against surprise attack.

Following formations are reworked from hundreds and thousands troops to individuals, so it's easier for us to exercise at home even with several people (squads of 8-10) and larger exercise communions (30-50 fighters).



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Following 4 tactical drills are described for cavalry equipped with lance and bow. Light mobile infantry can work similarly in our circumstances.

Strategikon, pg61

a = attackers
d = defenders

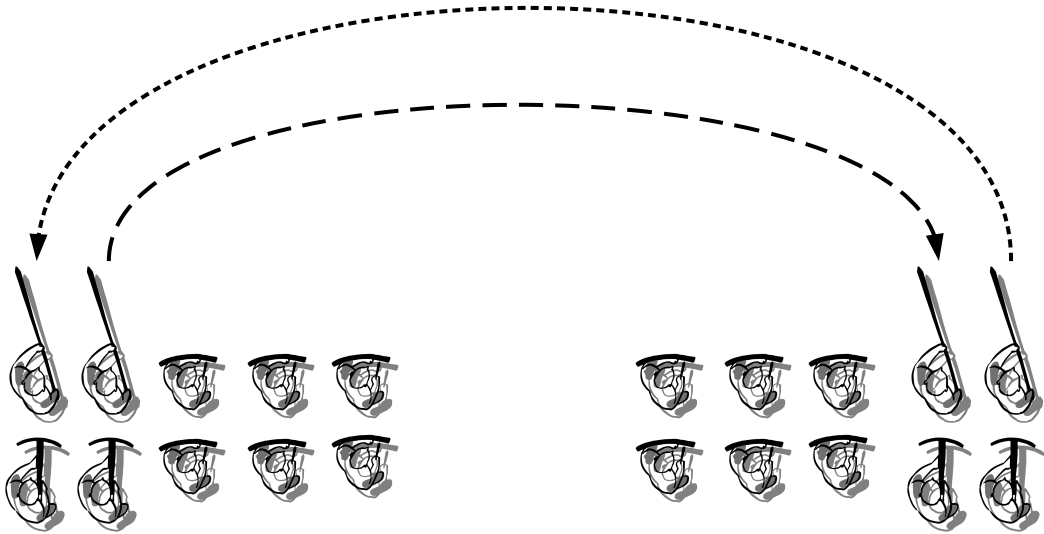
18 attackers, 16 defenders = 34 people + 1 commander

Scalable to 8 attackers, 8 defenders = 16+1

Defenders advance slowly, hold formation and provide refuge. Attackers perform raids, use ranged and long reach weapons from distance. Avoid close contact hand-to-hand fighting.



Tactical drills #1: Scythian



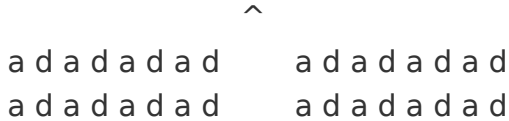
Strategikon, pg61

One way how to perform encirclement.



Tactical drills #2:Alan

- Attackers and defenders in one Rank divided into blocks spaced 10-30 meters.
- Attackers sprint like for pursue, then return back to their original spaces or into the big space between blocks.
- Then come into attack with defenders.
- Alternative:
After attackers return to big middle space, they will come attacking from both flanks.



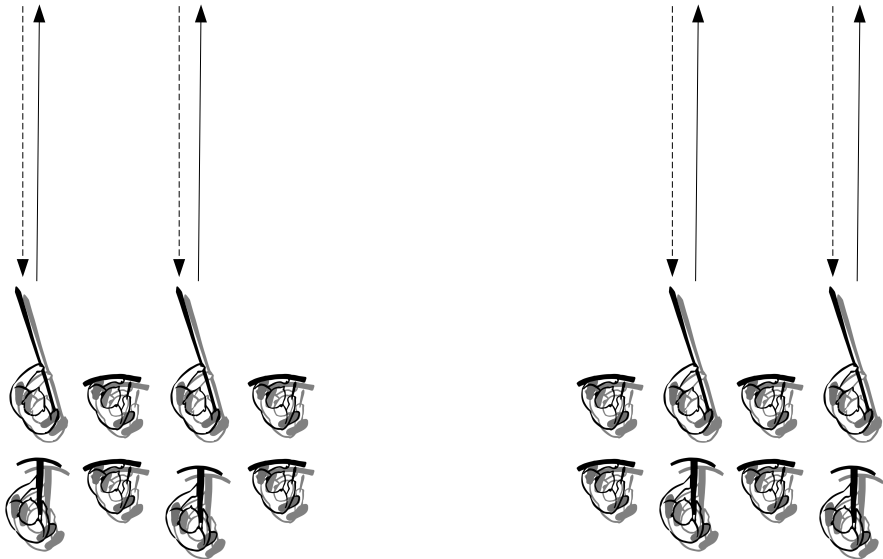
Strategikon, pk62

a = attackers
d = defenders

16-32 people, 1 commander

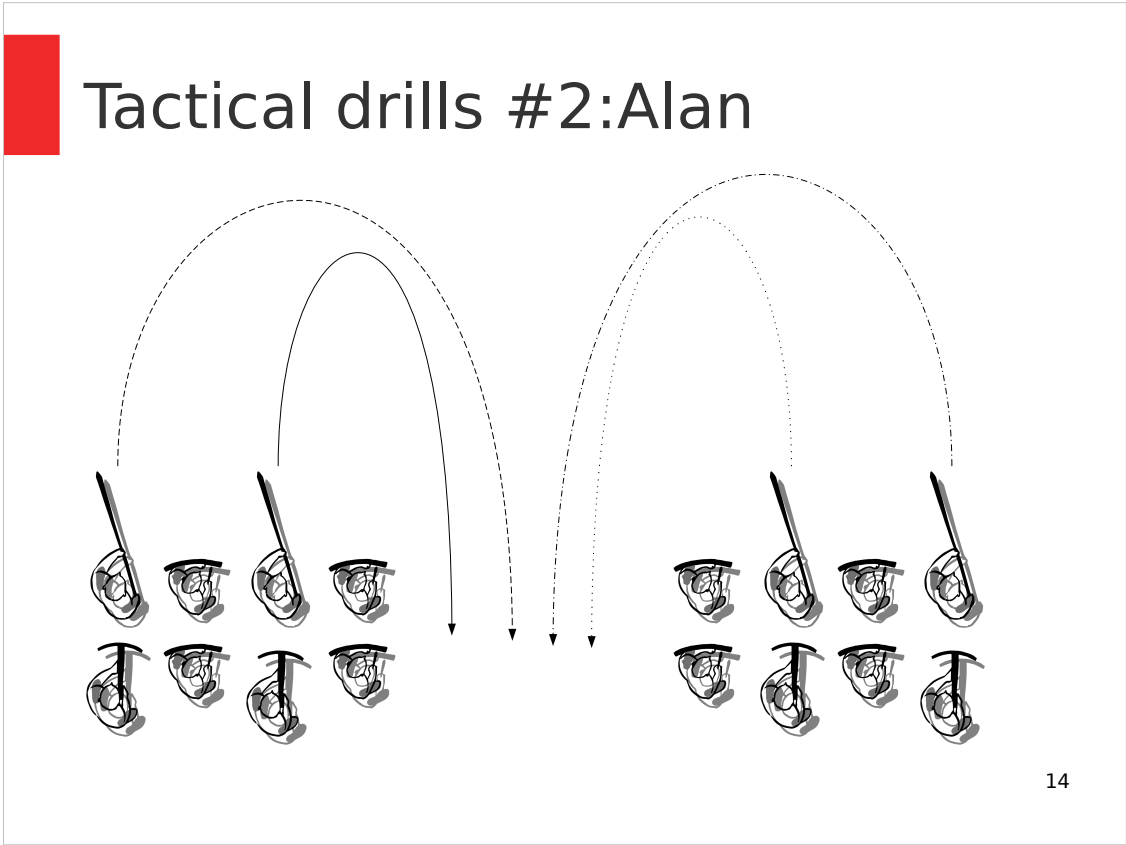


Tactical drills #2:Alan



Strategikon, pg62

16 people, 1 commander



Strategikon, pg62

Big tribe of Alans in Byzantine Empire was eradicated by Catalan Company with almugavars in the early 14th century. See Ramon Muntaner „Chronicle“.

Retreat of attackers looks like flight from battle. Provokes the enemy to pursue, to (dis)organized attack at visually weakened center of defenders.

Attackers reappear again at flanks, ready to attack enemy flanks and enemy rear.



Tactical drills #3:African

- Center = defenders, flanks = attackers.
 - Illyrykian drill: Reverse roles, same movements.
- Center lags behind, flanks get in front.
- One flank holds position or slows down.
 - Second flank returns to defenders.
 - Slowed flank begins return.
 - Second flank goes forward to face the first, without colliding.



Strategikon, pg62

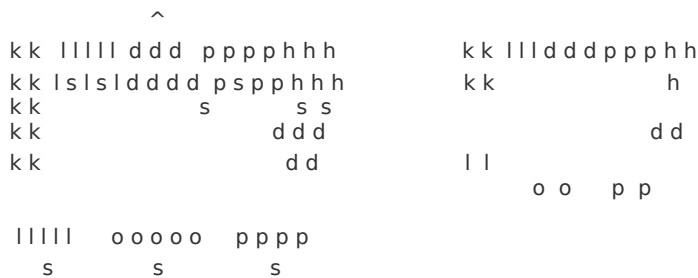
a = attackers
d = defenders

18 people, 1 commander



Tactical drills #4:Italian

- Two lines. Front one. The second Support line is few dozens meters behind.
- Front: Flank guards/left outflankers(k), left flank (l), defenders (d), right flank (p) - RF.
- On RF **attacker units**: outflankers (h) encircle, then hidden ambush troops (d).
- Outflankers: min 1, max 4 depth due to reach. Front line max 16 depth for pressures.
- Front line contains shooters - ranged attackers - javelins, slingers, archers (s).
- Enemy equal: Flank guard spreads left to fit his right wing. Outflankers encircle.
- Enemy weaker: Flank guard encircles him from left, outflankers from right.
- Enemy significantly longer on both sides: Attack with our center ahead of other units.
- Enemy encircles left flank: Second line attacks his rear.

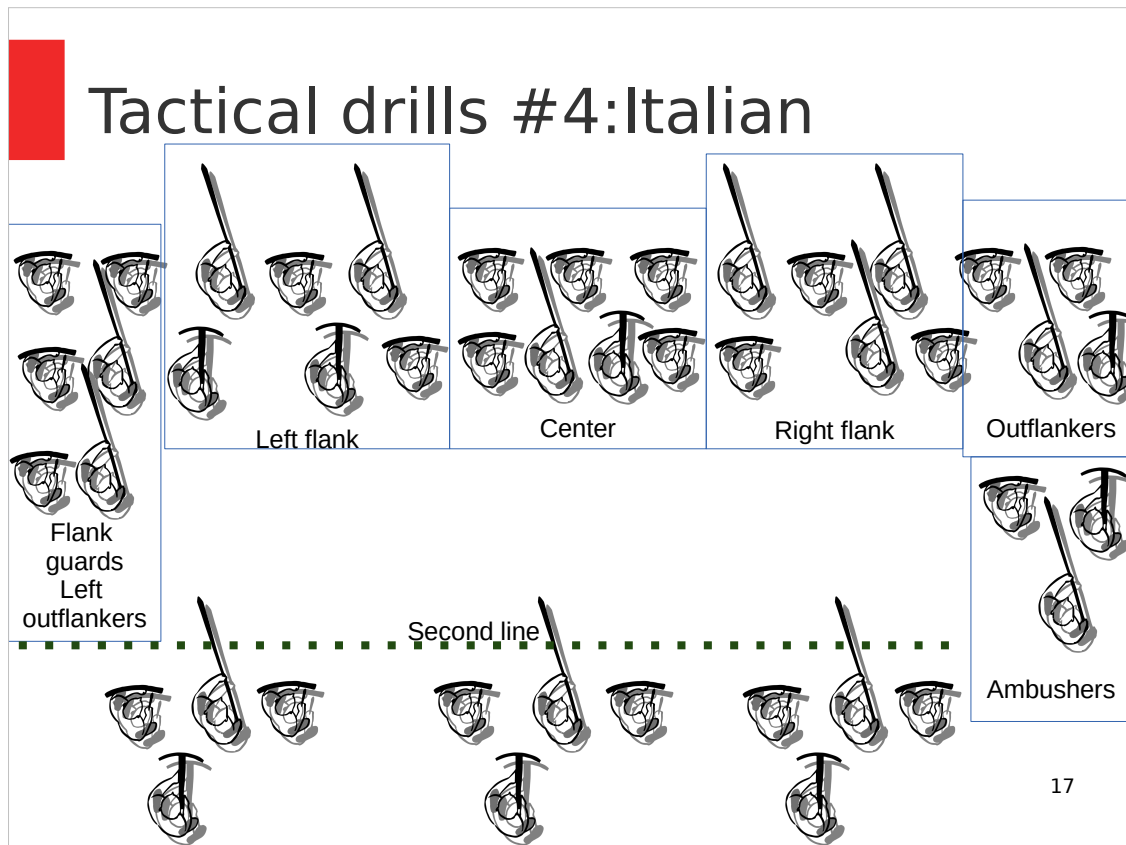


Strategikon, pg62:
60-63 people, 6 archers; 6-7 commanders

- 10 flank guards
- 8 left flank + 2 archers
- 7 defenders at center
- 7 right flank + 2 archers
- 4-6 outflankers + 1 archer
- 5 ambushers + 1 archer
- 14 second line

Scaling: 24 minimum, 3 commanders

- 4 k
- 3 l
- 3 o
- 3 p
- 3 h
- 2 d
- 2 + 2 + 2: second line



This drill works both for infantry and cavalry.

Weapon selections for individual posts isn't random, but doesn't have to be observed. Defenders at center have more shields. Flanks and attackers have more spears. Each tactical unit has own archer(s) and commander.

Advanced attacker archer units supported by spearmen are optimally placed in front of the left flank. On the right flank they should be positioned far to the right or rear of the enemy.

Flank guard is the ideal place for left handed shield-bearers. Shield in right hand protects their right flank when they start encircling manoeuver.



Tactical drills #5: Outflankers

- Outflankers and ambushers are hidden behind right flank or within.
- Maintain formation, launch so far into right as needed, then return quickly to encircle enemy line.
- Flank guards similarly extend to the left, then return to their position, maintain length of our First line to be on par with enemy.
- **Important** is to estimate correctly how far into side go to **time properly the return and perform encirclement.**
- Alternative:
 - Flank guards perform right angle backwards using the same length as enemy encircling unit. Support line is ready behind flank guards.
 - Let enemy reach the rear of flank guards. Flank guards front tip launches to the left, forms wedge and isolates the encircling unit. In the rear our support blocks them. Crush the isolated enemy party.

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Strategikon, s63

Flank Guards cutting the attacker column with wedge at the tip succeeded at battle of Švihov castle in 1242.



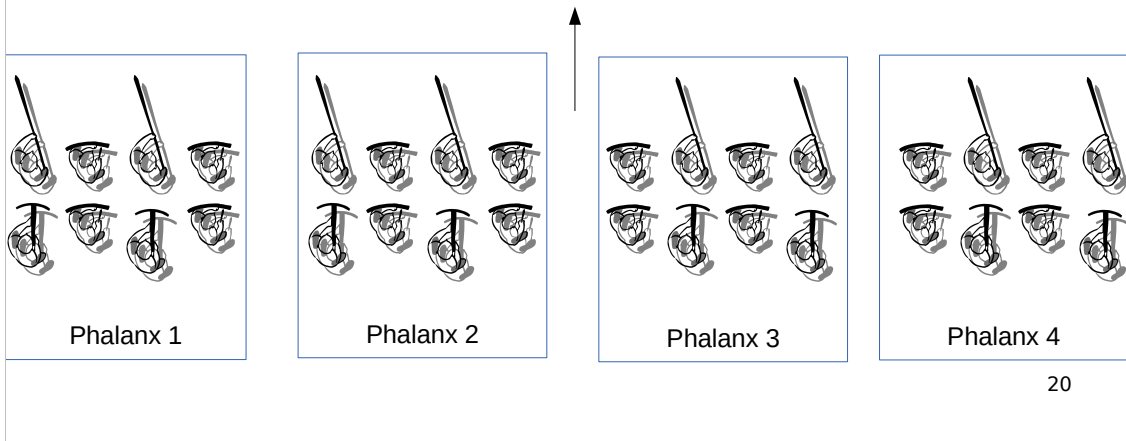
Other drills

- Light infantry in thick Wall formation in front.
- 10 steps behind Second line of sparse Rank of spearmen and heavy infantry.
 - Wall poses visibility obstacle.
 - Attacker goes after simple prey, is surprised by change.
- Front wall dies, their bodies form obstacle, attackers can't cross them back easily. Second line crushes attackers enclosed by obstacle.
- Alternate behaviours of the First line:
 - Step back into empty rank spaces of the Support line.
 - Let enemy pass through center Causeway, close behind them.
 - Let enemy pass through and run to encircle his flanks.
- Alternate composition:
 - Light infantry Wall in front.
 - 10 steps behind Second line - sparse rank of archers.
 - In spaces of archers' rank, 2 steps behind: Pairs of spears and shields.

Double line was utilized nicely by viking army at battle of Libušín 2023. Our commanders recognized the problem and didn't get lured into trap.

Infantry formation: Lateral

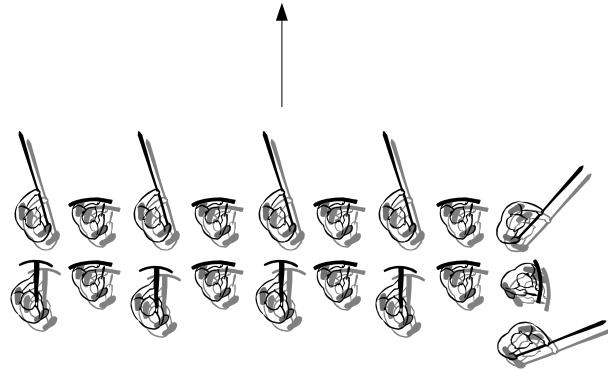
- Lateral formation looks impressive.
- Is useful in open country.



Strategikon, pg 156-157

Infantry formation: Simple

- Simple column or phalanx = basic.
- Suited for use in narrow passes and where there is only one road.

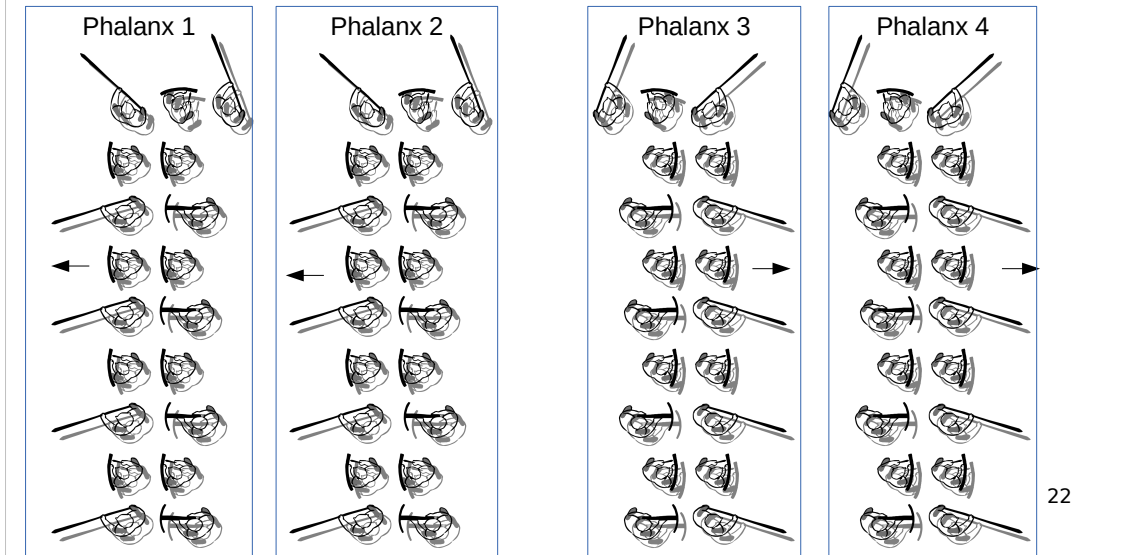


21

Strategikon, pg 156-157

Infantry formation: 4 in line

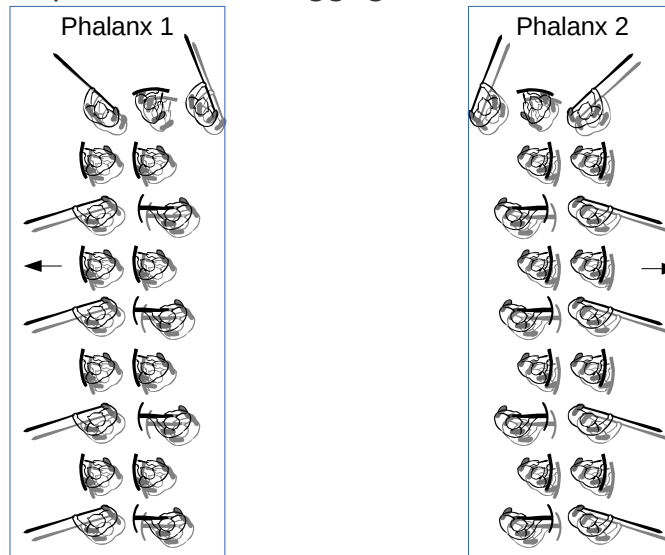
- Four phalanxes in line.
- Infantry force is very large and ground is favorable.
- Traverse area more quickly. Easier to change front to flank.



Strategikon, pg 156-157

Infantry formation: Double

- Double phalanx. Necessary for thickly wooded areas.
- Refuge and rallying point for the light infantry and cavalry.
- Provides protection to baggage trains.



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Strategikon, pg 156-157



Strategy: Plan, stratagems

- **Strategy is deception, traps, surprises, unpredictability.**
- **It's easy to fall in own trap.**
- **Hence it's necessary to drill basics, conceal the master plan.**
- Leo VI: Arabs know and use Roman tactical manuals.
- Warfare is like hunting.
 - Scouting, laying nets, lying in wait, stalking, circling around.
 - Don't use sheer force, this is very risky and costly.
- Enemy superior in cavalry. Destroy his forage.
- He is superior in troops: Cut off their supplies.
- His army is composed of diverse peoples:
 - Corrupt them with gifts, favors, promises.
- Dissent among them: Deal with their leaders.
- They rely on spears: Lead them into difficult terrain.
- Archers: Line up in the open, force them into close hand-to-hand combat.



Strategy: Plan, stratagems

- If the enemy has a very strong force of archers, watch for wet weather, which affects the bows, then launch attack against them.
- Against Scythians or Huns launch assault in February or March when their horses are in wretched condition after suffering through the winter, and proceed as just suggested for attacking archers.
- If they march or make camp without proper precautions, make unexpected raids on them by night and by day.
- The foe is superior in infantry: Entice him into the open, not too close, but from a safe distance hit him with javelins.
- If they are reckless and undisciplined in combat and not inured to hardship, make believe you are going to attack, but delay and drag things out until their ardor cools, and when they begin to hesitate, then make your attack on them.



Strategy: Plan, stratagems

- If there are obstacles on the field, let enemy cross them, so they are in front of them, and then attack.
- Surprise reduces enemy morale. Let them never know what to anticipate and prepare for.
- When both sides are equally well armed, the better tactician will win.
- In battles and in every action against the enemy the wise general, even the most courageous, will keep in mind the possibility of failure and defeat and will plan for them as actually occurring.

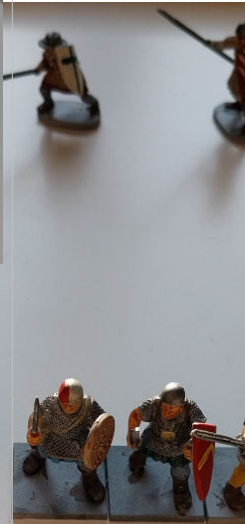


Strategy: Plan, stratagems

- Wind, dust, sun into eyes.
- Fight uphill.
- Fight downhill.
- Fight between trees.
- Deny enemy the vision, use terrain, trees, bush, thicket...
- Double phalanx (backup).
- Outflanker units. Outflanking and anti outflank manoeuvres.
- Archers, slingers, javelin throwers. Place in formation. Usage.
- Feign retreat, ambush enemy by hidden unit, retreaters turn back to attack.
- Ambush directly follows the ambassador with peace conditions.
- Ambush the enemy camp with ranged weapons from 2-3 directions.
- Ambush the enemy marching formation.
 - Ambush units supported by units distributed along the path of retreat.

Simulations

- Chessboard + pieces.
- List of tactical problems to solve.
- **Maps** + Model figures.
 - River with ford.
 - Swamp.
 - Hill.
 - Depression.
 - Mountain pass.
 - Bush.
 - Forest.
 - Sun.
- Desk games inspiration - Warhammer



<https://fireforge-games.com/western-armies/13-foot-sergeants.html>

<https://fireforge-games.com/spanish/843-almughavars.html>

<https://fireforge-games.com/spanish/620-light-infantry-javelinmen-archers.html>

<https://fireforge-games.com/spanish/621-light-infantry-spearmen-crossbowmen.html>



Future themes

- Outflanker units: Training, signals, command, drills.
 - Ideal weapon compositions.
 - Wolf packs, 3-5 members.
 - Shield + long spear + bow/sling/5-10 javelins.
 - Shield + halberd + projectiles.
 - Spear and bow, single man.
- Archery units: Training, signals, command, drills.
- Scouting units: Training, signals, command, drills.
- Soft armor construction.
- Shield construction.
- Suggestions, ideas ... ?



Sources

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- 450 Flavius Vegetius Renatus: „De re militari“.
- 550 Maurikios: „Strategikon“.
- 820 Hrabanus Maurus: Comments on Vegetius, Frank army exercise descriptions.
- 900 Leo VI.: „Taktika“.
- 1119-1307 „Templar rule“ (Latin rule).
- 1265 Alfonso X: „Siete partidas“.
- 1618 Adam van Breen: „De Nassavsche Wapen-Handelinge“.
- 1645 Mijamoto Musashi: „Book of five rings“
- 1850 US Army WigWag signals.
- 1936 „Rukověť pro aspiranty a důstojníky v záloze“. Vědecký ústav vojenský. Praha.
- 1939 Reibert: „Die Schützenkompanie“.
- 1983 Vševojsková operační a taktická terminologie:
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- 2017 U.S. Infantry Training Circular 3-21.60 (FM 21-60).



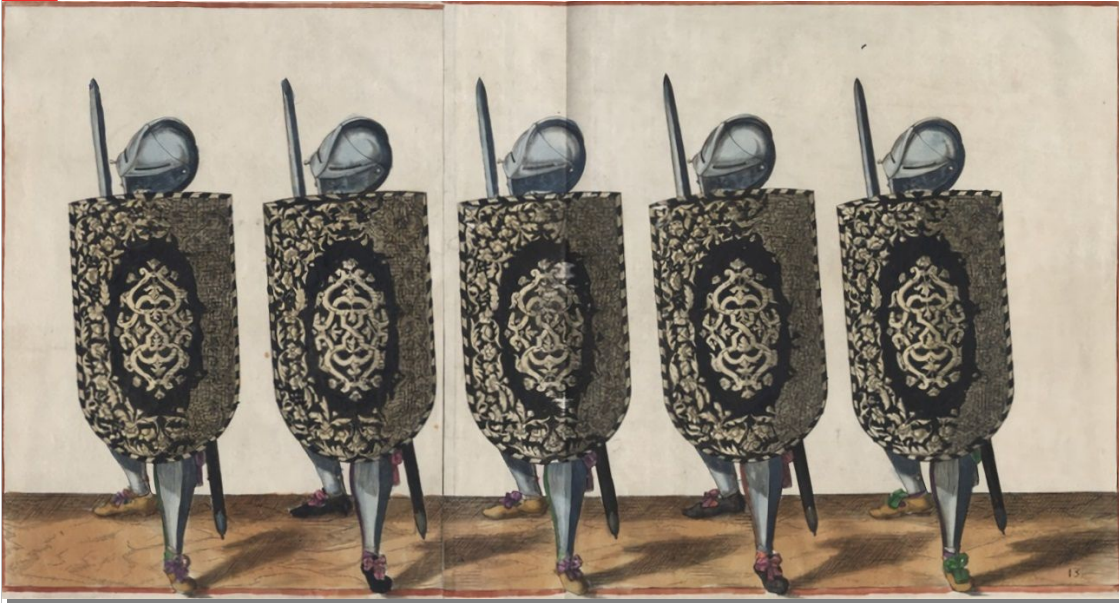
Credits

- Alfonso X. Unambiguous declaration of armor requirements, battle formations, hundreds of detailed illuminations. Partidas.
- Arrianus, Vegetius, Mauricius, Hrabanus Maurus, Leo VI, Maurice de Nassau: Great sources.

- Gentlemen from Bílá, Blatná, Dobřenice, Javornice, Hrádek, Kravaře, Libiš, Lomnice, Loupežník, Němčice, Nové Hrady, Rabštejn, Sonnberg, Strakonice, Štěkeň, Štítná, Vrcov, Wrauu, and others from project of Queen Elizabeth Richenza court.
- Dagfari, Dwarf, Vojtěch Půlpán, Rogan and other Czech reenactment military commanders.
- Eva and Honza Hans Hoffmann for support, experience, manufacture, long company.
- Pero Cornel for Spanish commands and long fruitful cooperation.
- Tomáš Zach for illustrations.

- +Many others willing to share experience.

Questions, discussion



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1618 Adam van Breen: „De Nassavsche Wapen-Handelinge“.