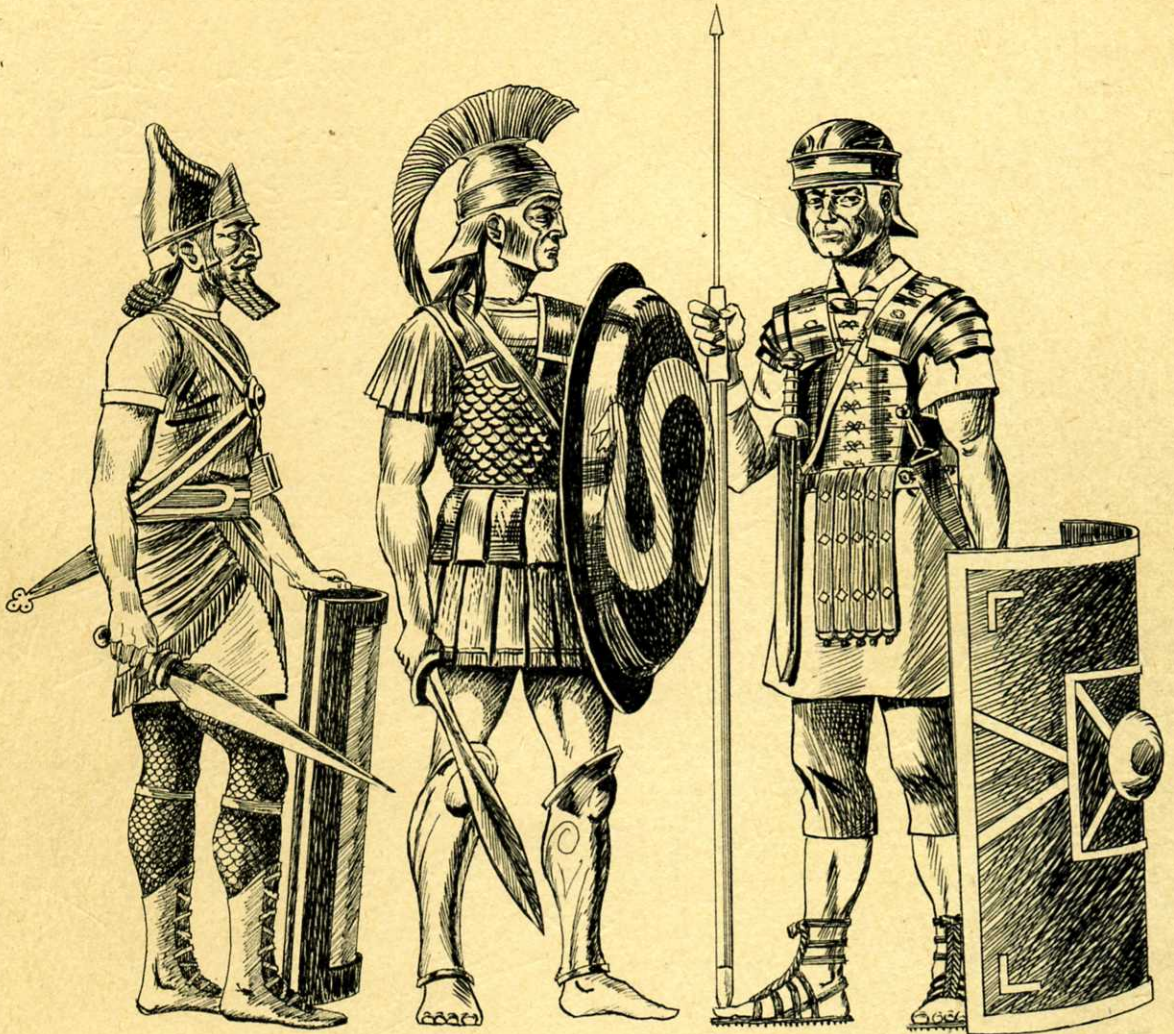


WAR GAMES RULES



3000 B. C.-1250 A.D.

5th Edition
January 1976

War Games Research Group

WARGAMES RULES 3000 B.C. TO 1250 A.D.

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INTRODUCTION TO THE 5TH EDITION

Since the first edition of these rules was printed, they have been chosen for the Ancient games in the 1969, 1970, 1971, 1972, 1973, 1974, 1975 and 1976 British National Wargames Championships, were officially adopted by the Society of Ancients, the international specialist society for ancient and medieval wargamers, and despite competition from a number of would be rival sets often partly plagiarised from them, continue to be used by an overwhelming majority of ancient wargamers throughout the world.

Their continuing popularity has been due not only to the soundness of the original conception, which substituted realistic troop behaviour for the telepathic heroes of earlier sets and cut out much of the proliferating and largely imaginary detail they included, but also to the way in which they have been periodically updated in the light of the latest historical research and the unprecedented mass of playing experience accumulated.

This updating has in the past been a rather patchy affair with amendments being made as the need arose and made available to owners of previous editions by free amendment sheets. This edition differs in that we have taken the opportunity to revise the entire set, inserting extra explanation where necessary, and changing the wording of sections where experience has shown that this will put over the meaning better. We have also done what is necessary to extend the period covered from 3000 B.C. to 1250 A.D, and have incorporated after due testing many suggestions from players the world over. Indeed, it might almost be said that this edition was written by the players. We regret that the changes are too extensive to be covered by one of our usual free amendment sheets.

As for the beginner, do not be overawed by the size of this rule book and its apparent complexity. Start by reading right through it, but remember that all the basics are incorporated in the reminder sheets, so that you will only need to turn to the main rules when you need fuller explanation. Above all, keep to a few basic types of troops for your first games, bringing in others when you get the feel.

Players familiar with previous editions will find many differences, and would also do well to read the entire set through carefully to make sure of spotting them. They will recognise in many of them suggestions ventilated in Slingshot, but they will also see that some other suggestions that were advocated there have not been adopted, some because we believe after due consideration that they are not historically justified, others because problems they identified could be dealt with in easier and fairer ways, still others because we consider them not worth the added complication involved. All wargames rules are a compromise between "playability" and detailed simulation, and our particular approach is intended to produce essential historical accuracy while still permitting us to enjoy playing ourselves, rather than to show off how clever we are.

It has been our practise to answer queries on these rules by post, provided a stamped addressed envelope or overseas reply coupon is sent, and we will continue to do so. However, it may take a considerable time for your query to rise to the top of our In Tray, and it will invariably be quicker to read the rules again and find the answer yourself. Only a tiny proportion of the queries we get could not have been answered that way. Many in fact are seeking reassurance that the rules do not mean what they say, which they do, or seek our approval of ways to evade some of the rules, which they do not get. Others ask for background information on armies which is either included in one of our series of reference books or is simply not available. Others begin "Why do you..." and are often written by players who would like the relative efficiency of their own pet army increased. A glance at the Society of Ancients wargames championship table will show that we don't even make our own armies unbeatable!

SCALES

GROUND SCALE

This varies according to the size of figure being used.

For 30mm, 25mm and 20mm figures, each inch measured on the table represents ten paces in real life, for 15mm, 12mm and 9mm, twenty paces, and for 5mm, forty paces. All distances in the test are quoted in paces. You will find no difficulty translating this into inches after a little practise, whichever scale you use.

Paces have been selected as the unit of measurement because the length of a mans stride has remained fairly constant throughout history while units such as cubits, yards and metres come and go. As an illustration of this, our modern mile is 1,000 double paces of a Roman legionary!

The pace can be taken as two and a half feet or 0.75 metres.

TROOP SCALE

Each figure represents 20 men, the number who would theoretically occupy the area covered by its base at the ground scale formed 5 files wide by 4 ranks deep. An elephant, chariot, engine or wagon model represents 8 in a single rank or line.

TIME SCALE

Each period of play contains action comparable with that possible in half a minute in real life. As this, multiplied by the likely number of periods in a game, gives an unrealistically short time for a battle, we assume that each period also contains a variable amount of delay. It is convenient to assume for campaign purposes and for determining a games maximum length that one period of play on the table, plus the associated delay, is equivalent to one hour in real life. It then follows that a game should normally be ended by the fall of night after twelve periods of play. If a reader can invent a better justification of this, we should be grateful to hear of it.

SETTING UP A GAME

TROOP DEFINITIONS

Troops are divided into two major and eight minor classes defining their training and morale.

The major division is into REGULAR and IRREGULAR.

Regular troops are enlisted into units commanded by officers. They are usually, but not always, paid and uniformed. They are taught drill as well as weapon handling, and can obey orders such as "Double your ranks!" and "Left incline!"

Irregular troops are combined into units usually consisting of relatives or neighbours and usually commanded by a local chieftain or feudal superior. Their training has been largely confined to individual weapon handling and keeping roughly in line, and they can only obey orders such as "You lot go over there and do so-and-so!"

Irregulars are not necessarily inferior in fighting power to regular troops, but are usually less manoeuvrable, and always less consistent in behaviour.

Each major class is then further divided into classes A, B, C and D.

- A. Regular guard and household troops of the highest quality.
Irregular fanatics & unaccompanied chariot drivers.
- B. Elite regulars.
Irregulars of noble birth or belonging to a chieftain's personal following.
- C. The great bulk of trained regulars.
Other irregulars of fighting stock accustomed to handling weapons.
- D. Regulars of second rate, raw or garrison units.
Irregular levies of doubtful enthusiasm or competence & transport drivers.

As well as being classified according to their training and morale, troops are also divided into types according to their standard of protection and the density of their normal fighting formations.

SHC. Super Heavy Cavalry.	Men in full armour completely covering body, limbs and all extremities, and mounted on horses with either metal or non-metallic armour all round. Fight in close formation. Move at walk, charge at trot.
EHC. Extra Heavy Cavalry.	Men in full iron armour completely covering body, limbs and all extremities, and mounted on unprotected horses, or men in less complete metal or horn armour mounted on horses with metal armour for head, neck and breast only, or with non-metallic armour all round. Fight in loose formation. Move at trot, charge at gallop.
HC. Heavy Cavalry.	Men in partial metal or horn armour mounted on unprotected horses, or men in rawhide armour on similarly protected horses. Fight in loose formation. Move at trot, charge at gallop.
MC. Medium Cavalry.	Men in rawhide, lesser or no armour mounted on unprotected horses. Fight in loose formation. Move at trot, charge at gallop.
LC. Light Cavalry.	Unarmoured men on unprotected horses. Skirmish in dispersed formation. Move at canter, charge at gallop.
SHI. Super Heavy Infantry.	Men in mainly metal armour protecting body, head, and both upper and lower parts of legs and unshielded arms. Fight in close formation. Move at slow walk, charge at walk.
HI. Heavy Infantry.	Men in partial metal or horn armour. Fight in close formation. Move at walk, charge at jog.

- LHI. Light Heavy Infantry. Men in partial metal or horn armour. Fight in loose formation. Move at jog, charge at run.
- MI. Medium Infantry. Men in rawhide, lesser or no armour. Fight in close formation. Move at walk, charge at run.
- LMI. Light Medium Infantry. Men in rawhide, lesser or no armour. Fight in loose formation. Move at jog, charge at run.
- LI. Light Infantry. Unarmoured men. Skirmish in dispersed formation. Move at jog, charge at run.
- EHCm. Extra Heavy Camelry. Men in full iron armour completely covering body, limbs and all extremities, or mounted on camels with metal armour for at least their chest and neck. Fight in loose formation. Move at walk, charge at trot. There are no super heavy camels as the larger body compared with a horse makes complete protection prohibitively heavy.
- HCm. Heavy Camelry. Men in partial metal or horn armour mounted on unprotected camels. Fight in loose formation. Move and charge at trot.
- MCm. Medium Camelry. Men in rawhide, less or no armour mounted on unprotected camels. Fight in loose formation. Move and charge at trot. There are no light camels as they are too clumsy to manoeuvre easily. Some medium camels have two riders.
- HCh. Heavy Chariotry. Chariots with more than one fighting crewman. Crewmen have at least partial metal or horn armour or are protected by shields carried by some of them. Horses may have metal or non-metallic protection. Move at walk, charge at trot.
- LCh. Light Chariotry. Chariots with no more than one fighting crewman and only one crewman in partial metal or horn armour. Horses are unprotected. Move at trot, charge at gallop.
- El. Elephantry. Divided into Indian elephants with a maximum fighting crew of four in a howdah or two astride in addition to driver, African elephants with a maximum fighting crew of three in a howdah or one astride in addition to driver, and Burmese elephants which can have up to sixteen fighting crew, half facing to each side, in addition to driver. No distinction is drawn between armoured and unarmoured elephants, as the size of the beast and the weight already carried preclude effective protection. Elephants, being somewhat erratic, are always treated as irregular.
- Art. Artillery. Divided into light man-portable 3 span or 1 cubit bolt shooting engines with crews of two, larger bolt shooting engines or 10 mina stone throwers with crews of three, 30 mina stone throwers with crews of four, 1 talent stone throwers with crews of five, and 3 talent stone throwers with crews of six figures. All but light bolt shooters are ox-drawn by twice as many oxen as the figures needed to crew them, and move at ox pace. Chinese rocket launchers and Byzantine flame throwers are also classed as artillery. *Engines powered by labourers pulling ropes count as torsion or counterweight machines of similar missile weight. The labourers do not count as fighting figures, as do other crews.*

Finally, the personal weapons carried are divided into classes. All these classes assume that in addition the troops carry a side arm intended to be wielded single handed, such as a sword, heavy dagger, light axe or mace, and all these are assumed to have an equivalent effect. It is possible, though unusual, for only such weapons to be carried.

Weapons having their effect at a distance are divided into the following classes:

- Artillery
- Staff slings
- Ordinary slings
- Crossbows
- Bows

Light hand-hurled weapons such as light spears, javelins or darts.

The last three of these can be used by mounted troops such as cavalry, camelry, chariotry, and elephantry, the others only by infantry. The last class is also a close combat class.

No distinction is drawn between different types of bow and crossbow except that those carried by infantry are allowed a longer range than those carried by mounted troops whether mounted or dismounted. This is because recent research has demonstrated that the power of the bow used is primarily dependent on the strength of the shooter, more efficient forms, such as the composite bow of horn, wood and sinew, merely reducing such a bows size and making it handier. The distinction between infantry and mounted troops is primarily due to variations in training methods. Similarly, no distinction is made between lead and stone sling missiles or between the lighter types of hand-hurled missiles, as the increased striking power of the heavier shot and the increased shooting rate made possible by a larger ammunition supply are held to largely cancel out.

Close combat weapons are divided into the following classes:

- Pikes from 15 to 24 feet long, held with both hands to thrust.
- Long thrusting spears from 8 to 12 feet long, held in one hand.
- Heavy throwing weapons such as the Pilum, Spiculum, Angon or Francisca, thrown only immediately before contact, and so not counting as distant weapons.
- Lighter spears, javelins or darts, whether thrust or thrown.
- Weapons swung with both arms such as heavy axes, two-handed swords, rhomphaia or massive wooden clubs.

All these classes can be used by infantry. Cavalry and camelry can use only the second class, as exemplified by the 12 feet long Kontos and other stout spears capable of being couched, such as the Norman lance, and the fourth class. Elephantry and some specialised chariotry can add the first class.

No distinction is drawn between the cost of these various classes as the cost of teaching troops to use them efficiently must have dwarfed the cost of the weapons, and must have been much the same for each. However, troops with weapons of two different classes would require extra training, and so do cost more.

Only those weapon combinations that can be demonstrated to have existed historically can be used. In particular, pikes cannot be used by infantry who fight in loose or dispersed formation, and slings cannot be used by infantry who fight in close formation.

Other weapon oddities best mentioned here are the Roman legionaries in Dacian-fighting SHI armour who forfeit their pila and fight with sword alone, the Viking berserk with a side arm in each hand who counts as having two classes of weapon though strictly he doesn't even have one, and the dummy elephant made of wicker mounted on a camel and manned by two archers by Arab conquest armies.

Troops are assumed to be armed and equipped as depicted by the figure representing them, with two exceptions.

1. Officer, standard bearer and musician figures are assumed to represent the majority type of rank and file in their unit, as in theory they include 1 special figure and 19 others. The General figure in a similar way includes the great man himself and 19 staff officers, aides or bodyguards.
2. Figures apparently armed only with a sword or equivalent can be assumed to have shafted or throwing weapons as well. These will be the normal weapons for their type, i.e. Legionaries will have pila, Britons light javelins, Norman knights a lance. However, the converse does not apply, and figures depicted with such weapons cannot be claimed to be without them.

Details of army compositions with illustrations and descriptions of typical troop types can be found in our series of army handbooks. Send an S.A.E. to 75 Ardingly Drive, Goring-by-Sea, Sussex, England for details.

BASE SIZE

Figures must be fixed on bases of specific sizes cut from thin cardboard or similar material. Plasticard is NOT suitable, being too slippery to stand on model hills. The following frontages per figure or model must be rigidly kept to.

	30,25 or 20mm figures	9,12 or 15mm figures	5mm figures
Super Heavy Cavalry and Super Heavy, Heavy and Medium Infantry.	15mm	7½mm	3¾mm
Extra Heavy, Heavy and Medium Camelry and Cavalry, Light Heavy and Light Medium Infantry, and pack animals.	20mm	10mm	5mm
Light Cavalry and Light Infantry.	30mm	15mm	7½mm
Elephants, bolt shooting engines, two horse chariots, carts, yokes of two oxen, and rocket launchers.	40mm	20mm	10mm
Each extra chariot horse	10mm	5mm	2½mm
Stone throwing engines, penthouses, and towers.	80mm	40mm	20mm

The following depths are minimums, and can be increased if necessary.

Those for 15mm and smaller figures have been set slightly overscale to accommodate present commercial ranges.

	30,25 or 20mm figures	9,12 or 15mm figures	5mm figures
Super Heavy, Heavy and Medium Infantry.	20mm	15mm	6mm
Light Heavy, Light Medium and Light Infantry.	30mm	20mm	8mm
All cavalry and camelry, pack animals, yokes of oxen, bolt shooting engines, and rocket launchers.	40mm	25mm	15mm
Elephants, chariots and carts including animals, and stone throwing engines, penthouses and towers.	60mm	40mm	20mm

Most figures should be mounted in multiples on large bases whose frontage should be the same as that of a four horse chariot, but leaving sufficient single figures to enable casualties to be removed. However, elephants, chariots, pack animals, yokes of oxen, artillery, all light cavalry, and if desired, heavy or medium cavalry primarily armed with hand hurled weapons, should also be mounted on single bases.

TROOP VALUES

In most games that do not form part of a campaign, including all competition games, it is customary to use two armies of equal fighting power, though often of widely varying types and numbers of figures. This is made possible by allocating an arbitrary value expressed in points to each type of figure and unit, and to any field defences that have been constructed.

The value of a unit is the total value of its figures plus unit command points.

The value of an army is the value of all its units, Generals and field defences.

The value of a General includes his mount, even if this is a chariot or elephant, but any extra fighting crew figures as opposed to unarmed drivers must be paid for separately.

	Points if Regular	If Irregular
Super heavy cavalry figure.	18	14
Extra heavy cavalry figure.	12	10
Heavy cavalry figure.	10	8
Medium and light cavalry figures.	8	6
Super heavy infantry figure.	10	8
Heavy and light heavy infantry figures.	6	5
Medium, light medium and light infantry figures.	4	3
Extra heavy camelry figure.	Not allowed.	20
Heavy camelry figure.	15	12
Medium Camelry figure.	10	5
Each fighting crew figure for an elephant or chariot model, or a second archer figure for a medium camel.	6	5
Increase for each extra weapon class used by a mounted figure.	+ 2	+ 1
Increase for each extra weapon class used by an infantry figure.	+ 1	+ 1
Reduction for cavalry or camelry who lack shields.	- 2	- 2
Reduction for infantry who lack shields.	- 1	- 1
Extra cost of an Arab or Indian cavalry figure <i>or chariot horse.</i>	+1	+1
Increase for an "A" class fighting figure <i>or unaccompanied chariot driver.</i>	+ 2	+ 2
Increase for a "B" class fighting figure.	+ 1	+ 1
Reduction for a "D" class fighting figure.	- 1	- 1
Elephant model including unarmed driver.	Not allowed.	15
Chariot model including unarmed driver and two horses.	12	10
Each extra horse added to a chariot model.	+ 3	+ 2
Light man-portable bolt-shooting engine model and crew.	20	40
Larger bolt-shooter or 10 mina stone-thrower, crew and oxen.	30	50
30 mina engine, crew and oxen.	40	60
1 talent engine, crew and oxen.	50	80
3 talent engine, crew and oxen.	60	100
Late Byzantine hand-flame thrower with super heavy infantry operator.	25	-
Chinese rocket launcher and crew of two.	50	-
Wagon model, animals and unarmed driver.	10	10
Pack horse or mule, or such animals used to mount infantry.	2	2
Pack camel.	8	2
Boat with unarmed rowers and steersman.	20	20
Command points to be added to the total value of the figures comprising a unit.	+10	+25
Command points to be added to the total value of the figures comprising a semi-independent sub-unit.	+ 5	+10
Commander-in-Chief figure.	100	100
Any other General figure.	50	50
10 paces of caltrops.	2	Not allowed.
10 paces of palisade, ditch or earth or turf rampart.	4	6
10 paces of stone curtain wall or 5 paces of tower.	15	20

Mantlet, scaling ladder or ram.	4	6
Wheeled penthouse or up to 50 paces of pontoon bridge.	40	80
Wheeled tower.	60	100
Wicker elephant disguise for a camel.	Not allowed.	50

Figures specified as unarmed can be replaced by armed figures if these are paid for. Values are not reduced for a figure armed only with a sword.

GENERALS

Each army must have a Commander-in-Chief, represented on the table by a figure. If the army is over 1,000 points strong, he may be assisted by a subordinate General, if over 1,500 points, by two. Such a subordinate may only order troops under his own command. His personality must be established by a dice throw after scouting but before deployment.

A score of 1 or 2 indicates that he is over-cautious, 3 or 4 that he is average, 5 or 6 that he is rash. A cautious man always counts minus in reaction tests, a rash man always plus. Regular generals use an "Average" die marked 2,3,3,4,4,5, irregulars an ordinary die marked 1,2,3,4,5,6.

ORGANISING FIGURES INTO UNITS

All figures except Generals must be organised into units including an officer, plus standard bearers and musicians when historically appropriate. The minimum size of unit permitted is 5 figures. The maximum is 50 figures, representing 1,000 men, for irregulars, or 60 figures, representing 1,200 men, for a regular unit. However, regular units must not exceed the strength of their historical prototypes, or have more than 50 figures in a single body.

Chariot and elephant units differ in having a minimum strength of one model, and maximum strengths of 12 chariot models in a Celtic army, 5 chariot or elephant models in an Indian army, and 8 chariot or elephant models in all other armies.

A General may personally command his own bodyguard. This must be of "A" class regulars if he is a regular, or of "A" or "B" class irregulars if he is not. There is no minimum size to a bodyguard, but it will not count as a unit for reaction purposes, nor can the General leave it to go elsewhere, unless it started with at least 5 figures or 1 elephant or chariot model excluding the General's. If it is of at least this strength but not more than 15 figures it does not need to pay command points. However, if it does not, the General will not be able to leave it to go elsewhere.

If a General's bodyguard including his own figure is less than a unit, he can take it to join another body of his force and supercede its command, even if this brings the combined strength over the normal upper limit.

Artillery units have a minimum strength of 1 model, and must not exceed 12 models or 30 crew figures.

Units can include more than one troop type. If two types are both infantry or both cavalry, and fight in equivalent formation, they form up in a single body.

If the two types are cavalry and infantry, as in a Roman *cohors equitata*, or if they are of infantry who do not fight in equivalent formations, as in later Roman *legiones*, the cavalry or lighter infantry fight as semi-independent sub-units. These are treated in all respects as an independent body except that they pay less command points, must be ordered to support their parent unit, and must not move out of sight of it or more than a normal move from it. If this does happen by accident, it must be corrected as soon as possible.

Alternatively, the cavalry part of a *cohors equitata* can pay full command points and be treated as an entirely independent unit, this being standard Roman practice when such a unit went into action together with other units rather than by itself.

A unit can also include pack animals. If so, these are positioned behind its centre, except that if specifically ordered, pack camels can be positioned in front of the centre of a unit which is stationary. Ridden camels of a Roman mixed dromedarii unit must remain in physical contact with its infantry, but subject to this can move anywhere within the unit. All pack animals and other transport must belong to a unit, either entirely of such and their drivers, or mixed. There are no minimum and maximum strengths for transport units.

CHOOSING YOUR ARMY

A player's choice of figures or units from those he has available is normally completely free provided the total points value does not exceed that agreed with his opponent and that the army does not include any troop types or organisation not found in its historical prototype. This will not apply in a battle forming part of a campaign as the forces available are then dictated by previous events, nor in the British National Championships and some local competitions in which only a limited choice is permitted.

Another exception is that stone fortifications can only be used by one side and by mutual agreement, as an invader would usually know of such places, and either avoid them or come prepared with siege equipment.

British National Championship armies usually total 1,000 points, which allows a finish in two to three hours. 1,500 is more usually in friendly games lasting a full evening. If substantially larger forces are to be used, with more than one player on each side, we recommend that each pair of opponents should play on a separate table at their own speed, with agreed provision for moving troops between tables. Army compositions are chosen after being told the nationality and period of your opponents army but before being told its composition or seeing the terrain.

CHOOSING TERRAIN

If the terrain to be used has not been fixed by competition organisers or by a campaign map, the following system can be used to provide a compromise between the players interests while also giving variety.

Each player nominates a number between 1 and 6 for the half of the table on his left, and another for the half on his right. Dice are then thrown for each half of the table, and their scores added to the two numbers nominated for that half. The result, divided by three and rounded down, gives the number of terrain pieces to be placed on that half of the table. Each player then chooses the terrain pieces for the half of the table on his left, and positions the pieces chosen by his opponent for the half of the table on his right, subject to the proviso that he must not position any hills within the area in which he is entitled to deploy his troops, unless he dices for each such hill and scores 4, 5 or 6. If he does not achieve this score, his opponent instead places the hill, and may do so within his own deployment area. *Any remaining terrain pieces are now positioned by the player who chose them, subject to the same proviso.*

Terrain pieces can be:

- A hamlet, with or without surrounding field boundaries enclosing up to twice its own area. All fields must have gateways.
- A steep hill.
- A gentle hill.
- A wood.
- A marsh, bog, or if in desert country, a patch of soft sand.
- A three foot length of stream, river or road.

Hamlets and woods are best represented by a piece of roofing felt or similar material cut to the outline required with huts and trees respectively placed loosely on top of them. Marshes are represented by a similar piece of material suitably embellished. Hills are best carved from rigid polyurethane block. Those at least one and a half inches high are steep hills. Hamlets, hills, woods and marshes must be between a third and one square feet in area. River sections can be bought from model shops, as can trees. Huts must be scratch built at the time of going to press. Roads must go somewhere, either from table edge to table edge, or from a table edge to a hamlet or fort. Similarly, streams and rivers should start and finish at table edges. The intersection of a road and river, if not bridged, is a ford.

SCOUTING

Each side now declares its initial scouting strength. This is expressed as a single total of all the light, medium, heavy and extra heavy cavalry figures, medium and heavy camelry figures, and light chariot models in the army, but counting light cavalry as double their actual number. If one sides total is now 50% greater than that of the other, it has outscouted them. If not, neither side is outscouted.

DEPLOYMENT

Following scouting, the two armies deploy. First, all pontoon bridges, field works or other fortifications that would be visible from anywhere within the opponents deployment area are placed in position. Next, if one side has been outscouted. ALL its troops must be deployed on the table. Sides that have not been outscouted now make sketch maps of their initial dispositions. They then simultaneously deploy on the table in accordance with their sketch maps all those figures that would be visible from anywhere within the opponents deployment area, leaving off those that would be concealed by the front rank of their own body, by another body, or by natural features, even if they might earlier have been seen moving to their present positions, had anyone been there to see them.

Care must be taken to leave plenty of room for those figures to be placed on the table later, as players will not be allowed to move those placed on first to make room for them.

Both sides now write their orders, following which the remainder of the figures to be deployed initially are placed on the table, including those in theory concealed inside cover such as woods.

Troops must not be deployed within 120 paces of the tables centre line or side edges. The permitted deployment area for 25mm figures on a 6 feet by 4 feet table will therefore be a rectangle 48 inches wide by 12 inches deep, and that on an 8 feet by 5 feet table will be 72 inches by 18 inches. Tables more than 5 feet across are not recommended as they make it difficult to reach to move troops, and 3 feet can be taken as the minimum for 25mm figures.

A side that has not been outscouted may keep up to half its strength in points off the table, either in reserve behind its initial deployment area, or flank marching. If it has outscouted its opponents it may attempt to march round either or both flanks, if not, only its right flank. This is in general accordance with ancient practise and makes off table collisions impossible.

The exact position at which troops that have been kept off the table should arrive must be marked on sketch maps. It must be on the tables side edge or the players own edge, not on the opponents edge. The earliest period during which such troops can arrive on their own table edge, either inside or outside the initial deployment area, is the second. They can arrive on a side edge short of the centre line during the second period if cavalry, chariotry, camelry or mounted infantry, during the third period if light, light medium or light heavy infantry, during the fourth period if other troop types. To arrive on a side edge beyond the centre line takes one period longer.

Troops can be ordered to appear later if the player wishes. In any case, their appearance at that time is not automatic, but must be diced for at the start of that period, regulars using an "average" die marked 2,3,3,4,4,5, irregulars an ordinary die. Units marching separately at their own speeds dice separately. Sub-units arrive with their units so need not be diced for. Those marching in company at the speed of the slowest under the command of a subordinate general are diced for together.

A unit or units marching in company with a general arrive if a 3,4 or 5 is thrown.

A unit marching independently without a general arrives if a 3 or 4 is thrown.

No distinction is drawn between rash generals, who though energetic may go the wrong way, and cautious ones, who though slow are more likely to enquire on route!

Troops scoring 4 or 5 arrive instantly, and can make a full on-table move that period.

Those scoring 3 arrive when all other moving has been completed, and do not move on-table until next period. Troops that do not arrive immediately can be diced for at the start of the next two periods before being given up as lost.

If access to the table edge is blocked by enemy troops standing on it, these must recoil out of the way. The arrivers need not follow up this recoil.

Troops who should have been on the table but have been left off because by miscalculation insufficient room was left for them do not have to wait or dice, but measure their first periods move from the edge of the table.

Players must fully define all troops for their opponents as they are deployed on the table.

FORCED MARCHING

Troops can be ordered to forced march. This entitles them to add 60 paces to any or all of their moves during the first period of the game, or to start dicing for arrival one period earlier than normal if kept off the table.

It also increases their points value by 1 point for light, medium, heavy and extra heavy cavalry, medium and heavy camelry, light chariots, mounted infantry, and light, light medium and light heavy infantry, by 3 points for other mounted troops and medium infantry, 5 points for heavy infantry, 10 points for man-portable light bolt-shooters or wagons, and 20 points for other engines.

The total points value of their unit must be retained, or if necessary reduced, by leaving out figures to the same or a higher value than its forced marching. This simulates the losses by straggling that would occur during such a march.

BATTLEFIELD VISIBILITY

Troops and generals can only take into account facts that would be known to them, so it is important to define what they can see on the table.

In general, visibility on the table is limited only by line of sight, but there are a number of special cases which limit it further. These are as follows.

Visibility in woods is limited to 20 paces. Because the vegetation is thicker at the edges, troops inside the wood cannot be seen at all from outside. However, they can see just as far looking out from the edge as they could in the open. Shooting betrays them. Built-up areas are treated the same as woods, but fortifications can always be seen to be occupied if they are. However, a second unit, not on the ramparts, is not visible.

Because of the dust raised by troops during the dry weather of the campaigning season only the nearest rank of figures can be seen on level ground, regardless of the mens spacing and whether they are mounted or on foot. However, elephant riders and men on ramparts and similar elevations are largely above the dust and so can see and be seen. Generals are assumed to have unusually distinctive standards which can be seen above any type of unit and their movements distinguished at 250 paces. They can see over a unit they are with.

A body which is immediately behind a hill or ridge crest can see over it without being seen, officers being assumed to have gone sufficiently far forward to see. It cannot shoot over it. Troops more than 100 paces behind the crest of a gentle hill or the far edge of a wood on low ground can be seen from the crest of a steep hill, but not from lower points. One steep hill cannot overlook another. Troops on a gentle hill can see over other troops, but not over buildings or trees.

Ditches are visible at line of sight distances from high ground, or at 100 paces from the same level. Caltraps can be seen at 50 paces from high or level ground.

The fact that a body is officially looking in another direction does not prevent it seeing all round.

FORMATIONS

Except that a unit can sometimes have a detached semi-independent sub-unit, which is itself treated as a body, no body of troops can be split other than to provide a messenger figure or to rout through gaps. Figures must be in base contact at all other times.

The most usual formations are lines one figure deep, rectangular columns more than one figure deep, and columns one figure wide which are almost exclusively used by light cavalry.

These are supplemented by the hollow square, the testudo, the cantabrian circle and the wedge.

Hollow squares are self-descriptive. They can be made up of one or several units, and can contain other troops in their interior. They move at reduced speed. Squares have no flank or rear, but the troops comprising them may still present an unshielded side while moving rather than halted facing outwards.

The testudo is possible only to Roman legionaries of the 1st and 2nd centuries A.D. It is represented by a four figure wide column and must be declared when formed. The figures then count as shielded, or if disordered shieldless, infantry against shooting from any angle, cannot use their own hand-hurled weapons, fight as a column of heavy infantry armed only with swords, and move at super heavy infantry speed.

The cantabrian circle is a one figure wide cavalry column in which the front has circled round and joined on the the tail. Its advantages are that it is always assumed to be a moving target, and that each figure in turn can shoot at the point of nearest approach to an enemy body, while relatively few enemy figures may be in range to shoot back. Their shields being on the outside of the circle, all the figures count shielded. There is always one secure flank – inside the circle!, and one insecure. Although some figures are always retiring while others are advancing, the circle itself does not count as either, because it must break up into a column to move on. If forced to evade or countercharge, a turn and a little movement converts it into a two deep line.

A wedge is made up of one or more figures in the front rank, an extra one in the second rank, and so on. The most usual form is used by light cavalry and has 1,2 and 3 figures in its three ranks, totalling 6. The flank figures of the wedge fight as an overlap of one figure on the enemies shielded side, three on the other, so such a wedge can in effect fight with four figures on a frontage otherwise only sufficient for three. *Chariot, elephant & multiple point wedges are not allowed.*

When a body consists of mixed troop types, the figures with the lightest armour or the longest ranged weapons must either be as equally divided on both flanks of the others as the bodies position allows, or else be placed behind at least the first two ranks *of a four rank or deeper formation, or behind at least the first rank of a shallower formation.*

OPTIONAL RULES FOR WEATHER AND TIME OF DAY

These rules are mainly intended for campaigns and are necessarily simplified.

The probability of various types of weather occurring obviously depends on the geographical area and time of year.

Dice at the start of the game to find out the potential weather. If the table says fine, this will last for the whole game.

Other types are potential, and will occur if a 1 is thrown at the start of any period, and cease if a 5 or 6 is thrown.

MEDITERRANEAN COUNTRIES, THE MIDDLE EAST, THE INDO-PERSIAN BORDER				
Dice Score	November, December, January, February.	March, April, October.	May, June, July, August, September	
1	Strong winds, snow in mountains, rain elsewhere.	Strong winds and rain.	Strong winds in desert or Steppe only.	
2	Snow in mountains, rain elsewhere.	Rain	Fine	
3	Strong winds	Rain except in desert	Fine	
4,5,6,	Fine	Fine	Fine	
EUROPE NORTH OF THE ALPS AND PYRENEES AND WEST OF THE RIVER ELBE				
Dice Score	January, February	March, April, October, November, December	July, August	May, June, September
1	Snow	Snow in mountains, rain elsewhere	Rain	Rain
2	Snow in mountains, rain elsewhere	Rain and strong winds	Rain	Fine
3	Rain and strong winds	Strong winds	Fine	Fine
4,5,6	Fine	Fine	Fine	Fine

The tactical effects of some types of weather and times of day are given below.

- Rain:** All missiles have weapon factors reduced by 1 till the 2nd period without rain. Fires are extinguished and no more can be started for the rest of the game. After 3 periods of rain during the entire game, all movement on land except on paved roads is reduced by 20 paces, reaction totals are reduced by 1 and river crossings become one class more difficult.
- Snow:** As for rain, but after 3 periods fall, all movement rates are halved and no extra charge distance is allowed except in rout. Bodies of troops on mountain paths with a drop on one side must then dice each time they move. 1 means a figure or model has been lost over the edge.
- Drought:** During June, July and August, grass fires become possible in steppe country during high winds. In desert during the same months troops other than arabs, who have no access to a well, have all weapon factors and reaction test scores reduced by 1.
- Wind:** In desert areas, strong winds reduce vision to 30 paces, and only arabs can move in any direction except straight down wind. Trumpet signals will be inaudible at more than 100 paces. Mediterranean winds can be assumed to blow from the north east. European winds should be diced for, westerlies being slightly more common. They shift one point anticlockwise when rain starts to fall.

- Fog:** These may occur at any time of year in seacoast areas and during October to March in mountains and inland in western Europe.
Throw 1 or 2 at the start of the game except in strong winds.
Visibility is reduced to 100 paces for the first 3 periods.
- Sun:** Troops facing within 45 degrees of east for the first 2 periods of the day, or within 45 degrees of west for the last 2, will be dazzled on clear Mediterranean days from May to September.
A similar effect in Europe requires a 1 on the dice
Dazzled troops have their weapon factors reduced by 1.
- Night:** For campaign purposes, it is necessary to assume that each period represents 1/8 of the daylight hours available between October and February, 1/10 during September or March and 1/12 during the rest of the year. Fighting will normally cease at nightfall.
An optional method is to dice at the start of the game, counting the number scored as the number of periods already elapsed when the battle starts.
Nightfall reduced vision and all movement except evasion and rout to 60 paces.
All troops count unfriendly cover, and all unilluminated sightings are surprise sightings.
Troops moving without lights throw an appropriate dice each period, diverging 10 paces. left if they score 1 or 2, right if 5 or 6.
A fire or torch lights an area 60 paces around it.
Engineering work without illumination goes at half pace.
An army encamped at night may have up to 1/5 of its units on guard.
Others are asleep. Their sentries will detect approaching enemy at 60 paces, but a regular unit will take half a period to form up, irregulars, a full period.

ORDERS

BATTLEFIELD ORDERS

The game commences with each player writing down the orders that each unit must follow until they are changed by later orders, or the unit is broken, or must obey a reaction test instruction to start an uncontrolled or unauthorised advance, retreat for two or three periods, or halt in disorder for one period.

Orders should take the same form that they would in real life, and should be as concise as possible while still conveying properly the action that is required.

They must combine a movement instruction with instructions for the type of action to be taken.

The movement instruction can be:

- To remain in the present position.
- To move to a specific place.
- To move in a specific direction.
- To move in company with a specific friendly body or bodies.
- To move towards a specific body or type of enemy.

Action instructions must be to:

- Attack.
- Hold.
- Skirmish.
- Support a specific friendly body or bodies.

Attack means advance, charge immediately when within reach, delaying only to make any desirable formation or direction changes that facilitate success in the charge. Artillery cannot attack.

Hold means receive charges at the halt, first altering formation and direction if desirable and possible in the time available before contact. Troops ~~need~~^{must} not follow up recoiling enemy beyond the original limits of the position held, and do not pursue routs, *unless required by a reaction result.*

Skirmish means shoot, evading if charged. It is possible only to those EHC, HC, MC, LC, LHI, LMI, LI, and LCh who have at least some figures armed with distant effect weapons.

Support means assist those units specified. It must be amplified as follows:

"Attack in support of" means that they must always counterchange enemy charging themselves or the troops they are supporting, and may choose to charge enemy who are in melee with, pursuing, or shooting at the troops they are supporting, or who are shooting at themselves.

"Hold ? in support of" means that they must hold the position specified, usually in order to assist the troops being supported by shooting.

"Skirmish in support of" means that they must skirmish with enemy charging, or shooting at, the troops they are supporting, and may choose to skirmish with enemy that the troops being supported are charging, or may have to charge in future in order to carry out their orders, or who are manoeuvring with the apparent intention of acting against the troops being supported at some future time. If no movement instruction is included in a "Support" order, "Move in company with" is assumed to be implied.

Some typical examples of orders are:

- Hold present position.
- Skirmish in support of the phalanx.
- Skirmish on the left flank.
- Attack the enemy to your front.
- Take and hold the river bridge.

These last of these implies two actions, first attacking to gain the bridge, then holding it. The actions ordered can vary not only with time like this, but also according to the opposition met. For example, troops could be ordered to attack light infantry but skirmish with heavy infantry. However, such conditional orders should be used with extreme caution, as they usually cause more confusion than they bring advantage. They are made less necessary by the reaction test sections provision for unit initiative, and are better included in standing orders.

Orders to "Use initiative" "Take appropriate action" or "Attack suitable targets" are not acceptable. Units with meaningless or contradictory orders or lacking or having forgotten orders, and whose actions are not guided by standing orders, are assumed instead to have the following orders:

LC and LI: Skirmish with any enemy coming within 100 paces.
Other mounted troops: Attack any enemy coming within 100 paces.
Other foot: Hold present position.

In competition games, or indeed, any where an umpire is employed, any ambiguity in orders should be exploited by the umpire as a matter of duty, as the prime aim of these rules is to encourage skill in generalship by bringing out some of the difficulties of command and placing emphasis on the production of a reasonable battle plan, rather than each player moving his units as if he was actually on the spot in each case. For example, the order "Move South West" may result in the troops leaving the field completely, while "Take the wood in front" could be unfortunate if there are two woods.

Orders may only take into account such features and happenings as are visible from the position occupied by the general figure, or have been reported to him by patrols or messengers. Similarly, a unit cannot be told to move to a feature that it cannot see from its starting point, though it can be told to move in a direction that will eventually take it to the unseen feature.

Unless a route is specified in orders, a unit will proceed directly to its objective or in the direction ordered, except that troops other than LI, LMI or LHI will avoid crossing difficult terrain if their orders permit.

When the general figure is present with a unit, the only order that unit requires is "Follow me". It can then be moved exactly as the player desires, and he can change its role between "Attack" "Hold" and "Skirmish" at any time by a verbal declaration.

However, an order must be written before he can leave the unit.

Units may vary their formation as desired without specific orders. Missile equipped troops do not need specific orders to shoot, but can always engage any target within reach nominated by the target priority rule.

Initial order writing should be completed within 10 minutes. If it takes longer, the first player to finish may add up to 20 paces to any of his first period moves.

New orders can be issued at the start of any succeeding period, but must be passed from general to unit by messengers who travel at normal speed for their type, except that they can move at charge speed for one period during each trip. The general can act as his own messenger if desired.

The new order is written down, and the messenger briefed and despatched on his first move during the same period. He passes his message on at the end of the period in which he arrives with the units commander. The order is then ticked, and the unit acts on it immediately next period. The same procedure is used for messages from a unit to the general.

Messengers count as a patrol of 20 men for fighting purposes, and can form a bodyguard when not otherwise employed. However, if the general has a bodyguard of more than 4 figures in addition to his own figure, he cannot join another unit to supersede its command with a "Follow me" order, but must write a proper order for it.

A subordinate general can only order and move troops under his own control, and must do so in accordance with orders given him by his commander-in-chief.

CONTROLLING SUB-UNITS

Communication between a units main body and a semi-independent sub-unit is automatic as long as they are in sight within a normal move. Such sub-units must have orders to support their main body, and these must specify the type of support. In other respects sub-units are treated as if independent bodies. For example, a sub-unit is not necessarily broken when the parent unit breaks.

If the parent unit has been destroyed or has left the table, a sub-unit behaves like a unit which has lost its orders.

STANDING ORDERS

These are the equivalent to a regular army's manuals, or a barbarian tribe's orally handed down methods. They specify the ways in which various troop types should act against different opponents in varying circumstances. For example, light cavalry might be ordered "Attack enemy light infantry, light cavalry and troops exposing their flank or rear, or who are disordered. Skirmish with all other troops." Their battlefield orders need only tell them where to move, as their actions on arrival have already been defined.

If used, standing orders must be either typed or printed by hand on a single sheet of paper, and must not exceed 500 words in total. This allowance is in fact generous; very few players can exceed 200 words without producing dangerous contradictions to be exploited by the umpire!

This sheet must be handed to the umpire before deployment starts. A standing order sheet which has been left at home is not evidence. Conversely, it must have been prepared some time in advance, so that its preparation cannot be used to evade the five minute rule for writing battlefield orders.

Units that are currently without battlefield orders because they have completely fulfilled the last ones delivered remember their standing orders and must obey them. Units that have forgotten their orders because of being broken or receiving a reaction test instruction for uncontrolled advance, also forget their standing orders, but remember them at the start of the second period after they have rallied or the reaction instruction has been completed.

Battlefield orders override standing orders.

SIGNALS

Simple pre-arranged visual or trumpet signals can be used to activate an alternative order. Regular and irregular armies alike can have two improvised signals, one of which can be visual, one or both audible. These form part of battlefield orders.

Regular armies, however, can also have five audio-visual signals. These must be defined in standing orders.

Visual signals can be seen by all units on the table with one figure within line of sight of the signal. Examples could include the displaying of a banner, waving a brightly coloured cloak from a vantage point, or the smoke column from or light of a beacon fire. Such signals need not originate from the general.

Audible signals can be heard by all units with a figure within 250 paces of the general.

Examples include blasts on war horns or drum beating.

Audio-visual signals can be received by units with one figure both within line of sight of the general and within 250 paces of him. A trumpet blast is used to draw attention to the standard, which is then moved to convey the meaning.

Only one signal can be made each period, and they cannot be used in combinations. Troops receiving them obey next period.

Regular troops serving under an irregular general and irregular troops serving under a regular general cannot respond to such generals audio-visual signals. A general mounted on an elephant is by definition irregular.

When an umpire is used, he should insist on players defining their signals in terms of, for instance, "three blasts on the war horn", or "a blast on the buccina and standard dipped to the right". If both sides then use a similar signal or an identical instrument and this is seen or heard from a direction in which it might be expected, he may insist on both sides obeying it.

It follows from this that the same signal may also be used to indicate different meanings to various friendly units.

Signals are forgotten and remembered at the same times as standing orders.

THE REACTION TEST

The object of this test is to simulate the pressure and stimuli that may affect a body's reaction on the field, taking into account the class of troops and their situation as well as the orders they have been given.

OCCASIONS FOR TESTING

1. On the first occasion during a battle that a unit is subject to any one of the following circumstances.
 - (a) It has any enemy within its own charge move, taking into account any necessary reductions for changing direction.
 - (b) It is within an enemy body's charge move, allowing for any necessary reductions for changing direction.
 - (c) It is shot at.

This test is not taken by a unit which has previously tested reaction for some other reason, or by a regular unit which was within 250 paces of its commander-in-chief at the time the test was first required.

It takes place at the end of the period, and affects the whole of a unit including any semi-independent sub-units, irrespective of whether sub-unit or main body had occasion to test.

Tick the units orders when it has either tested for this reason or been excused it, to remind you it is done with.

2. When a body not already in uncontrolled advance is required by its orders to start a charge.
3. In response to an enemy charge on either the testing body or on a unit it is ordered to "attack in support of". Such tests are taken immediately after tests under 2 are completed.
4. Immediately a body receives 2 casualties for each figure comprising it from shooting during the period. Such tests are taken and acted upon before adjudicating hand-to-hand combat unless this finished before the shooting occurred.
5. Immediately a body falls below half its original strength in figures, and immediately it subsequently loses a figure or figures. Sub-unit losses do not affect the parent body.
6. At the end of a period during which a body is surprised by previously unseen enemy emerging from or shooting from cover within 100 paces.
7. At the end of a period during which a body sees a friendly unit break or to be in rout within 150 paces unless it has taken this into account in an earlier reaction test. A broken or routing sub-unit, is not a unit, so does not initiate such tests.
8. At the end of a period during which a body have seen their commander-in-chief or any other general in their line of command killed, captured, disabled or leave the table in rout, within 250 paces.
9. At the end of a period during which troops with orders to hold have broken all their opponents in a hand-to-hand combat.
10. At the end of a period during which a routing body which has outdistanced any pursuit, and did not receive 1 casualty per figure comprising it from shooting, either:
 - (a) Passed within 50 paces of a friendly body comprised of troops other than LI which is not retiring at the end of the period.
 - (b) Was joined by a General who is neither disabled or in rout.
 - (c) Is separated from the enemy by a linear obstacle at the end of the period.
 - (d) Has left the table without being followed off by pursuers.

This is the only test that can be taken by broken troops. If they do not succeed in rallying at the first attempt, it can be repeated at the end of any subsequent period provided the body remains on the table and is neither contacted hand-to-hand or receives 1 casualty per figure from shooting.

If a body is required to take several tests at the same time, only one need be taken. If several bodies are required to test at the same time, they test in order from right to left, the results being cumulative, so that if the first unit breaks as a result of its test, the second counts "friendly unit in rout". This means that the least reliable wing of an ancient army is likely to be worst affected.

As the cumulative number of tests taken for reason 7 is important, these should be recorded as are casualties.

TEST PROCEDURE

Throw three dice. Use "average" dice numbered 2,3,3,4,4,5 for regular troops and ordinary dice for irregulars. If the testing body has lost a third of its original figures, use only two dice, if half, one dice.

Add and deduct for the factors listed below, then check the final total against the results table to find out how the troops must act.

Add 1:

If there are more unbroken friendly units than facing, charging or pursuing enemy units within 150 paces.

If testing body or any friendly troops within 150 paces are advancing.

If any enemy troops within 150 paces are retiring or are exposing their flank or rear to a charge declared on them by the testing body.

Add 2:

If there are at least twice as many unbroken friendly units than facing, charging or pursuing enemy units within 150 paces.

If testing body or any friendly troops within 150 paces are charging, pursuing or in unauthorised or uncontrolled advance.

For each enemy unit within 150 paces which is broken or in rout. A sub-unit is NOT a unit, so does not count.

Deduct 1:

If there are less unbroken friendly units than facing, charging or pursuing enemy units within 150 paces.

If there are any enemy within 150 paces who are uphill of whole of testing body.

If within 100 paces of unfriendly cover or of one of the tables two side edges.

If there are any non-super heavy figures in the front rank who are not carrying shields.

If shot at earlier during the current or preceeding period by half own strength in figures.

If testing body, or any friendly troops within 150 paces are retiring.

Deduct 2

If there are only half as many or less unbroken friendly units than facing, charging or pursuing enemy units within 150 paces.

If there are any enemy within 150 paces who are behind testing body's flank.

If there are any unbroken enemy elephants or chariots within 150 paces.

If surprised by previously unseen enemy emerging from or shooting from cover within 100 paces.

If some of the testing body's figures except elephant crew are armed with bow, crossbow, sling or staff sling.

If light infantry are testing to charge or in response to a charge.

If shot at earlier during the current or preceding period by engines.

For each break or rout of another friendly unit seen within 150 paces either now or earlier in the battle. A sub-unit is NOT a unit, so does not count.

Deduct 3

If there are no unbroken other friendly units within 150 paces.

If there are any enemy within 150 paces who are to the testing body's rear.

If the testing body includes horses, mules or camels who are within, or testing to charge within, disordering distance of elephants or camels or includes any animals and was shot at earlier during this period or last with fire weapons or is now within 20 paces of a burning object.

If a unit includes elephants which have received any casualties during the current or preceeding period, or who are within, or testing to charge within, disordering distance of dummy elephants.

If within 50 paces of broken or routing friendly elephants.

For each occasion the testing body has now broken during the battle.

Add or deduct 1, according to players choice or generals character

For each secure flank.

If within 150 paces of a general who commands the testing body either directly or through a subordinate and is not disabled, broken or retiring.

Add or deduct 2, according to players choice:

If in cover, in square, or uphill of all enemy within 150 paces.

Add or deduct 3, according to players choice or generals character:

If a general is with the testing body, is not disabled, and if it is in rout, joined it after it broke so is not in rout himself.

REACTIONS

Troops ordered to:			Troop classes:					
Attack. Attack in support	Hold. Hold in support	Skirmish Skirmish in support	A Irr. Reg.		B to 10	C to 12	D Reg. Irr.	
Forget current order. Two complete periods unauthorised or uncontrolled advance.	Forget current order. Two complete periods of unauthorised or uncontrolled advance.	Forget current order. Two complete periods unauthorised or uncontrolled advance.	12	20	15	16	18	14
Obey orders.	Obey orders, except that troops testing charge response may countercharge, and those breaking all opponents must pursue.	Obey orders, except that mounted troops testing charge response may countercharge, foot testing charge response may stand to hold an obstacle or difficult terrain.	11 to 8	19 to 8	14 to 10	15 to 12	17 to 15	13
Obey orders, except that troops which are disordered or are testing to charge into a situation in which they are likely to be disordered may instead have them temporarily altered to Hold or Skirmish, automatically reverting to Attack when this no longer applies.	Obey orders.	Obey orders.	7 to 4	9 to 4	11 to 6	14 to 8	12 to 10	
Halt in present position for two periods, except that troops testing charge response may counter- charge, and those in hand-to-hand combat must follow up recoiling opponents and pursue routs.	Halt in present position for two periods.	Evade if responding to charge, break off if already in hand-to- hand combat, otherwise skirmish in present position for two periods.	3 to 0	3 to 2	5 to 3	7 to 4	9 to 6	
Halt to hold present position if responding to charge, already in hand-to-hand combat, otherwise retire for two periods. Do not follow up recoiling opponents or pursue a rout. If in rout, continue.	<i>break off if</i> Halt to hold present position if responding to charge, already in hand-to-hand combat, otherwise retire for two periods. Do not follow up recoiling opponents or pursue a rout. If in rout, continue.	Evade if responding to charge, break off if already in hand-to- hand combat, otherwise retire for two periods. If in rout, continue.	-1 to -4	1 to -4	2 to -2	3 to 0	5	
If in rout, continue. Otherwise halt in disorder for remainder of current period and all of next period. Do not evade, follow up recoiling opponents or pursue a rout.			-5	-5	-3	-1	4 to 3	
If in rout, continue. Break if testing response to charge, already in hand-to-hand combat, or if two casualties per figure have been received from shooting while charging or being charged, or Otherwise retire for three periods, irregulars disordered. <i>if elephants, declass or reduced below half original strength in figures or models by casualties.</i>			-6	-6	-4	-2	2	

FURTHER NOTES

Troops that are rallying forward are treated as having Hold orders while doing so. Troops that are rallying back are treated as having Skirmish orders, even if not of types that are normally eligible to skirmish.

The latest reaction test taken cancels a previous test.

Players will find that as their experience increases, they will in many cases know the result of a test will be "Obey orders", without actually counting up. For example, a B class unit that scores 10 with its three dice is going to need something fairly unusual in the way of circumstances to bring it outside the 14 to 4 range.

The convention that has grown up in such circumstances is for the player taking the test to throw his dice, then ask his opponent if he wishes him to take the test any further

"Within" implies measurement from the nearest figure base edge of the testing body to the edge of an object or the nearest base edge of another body. Such objects or figures must also be in view of at least one figure, even if he must turn his head to see.

Forces or objects on the far side of an impassable obstacle should be counted only if the necessary detour is less than the prescribed distance.

A flank is secure if one of the following applies:

1. It is within 5 paces of another friendly body which is not retiring, an impassable obstacle, or friendly cover.
2. If a friendly body which is not retiring and is not at present in hand-to-hand combat is close enough to charge on to it without wheeling more than a $\frac{1}{4}$ period or turning.
3. If no enemy body can be seen close enough to charge or lap round on to it and no terrain features capable of concealing such enemy are within 240 paces.

A square has no flanks. A cantabrian circle always has one secure flank.

Unfriendly cover is a wood, group of buildings or fortification which is either known to be occupied only by enemy troops or about which nothing is known. Conversely, friendly cover must have been completely occupied by friends, be currently disputed by friends, or have been cleared by friends passing through it and not be known to have been entered by the enemy since.

An enemy body is facing the testers if the testers are not completely behind its flank.

Troops are behind a body's flank if they are partly to rear of an imaginary line prolonging its front. They are to its rear if they are partly inside a similar line prolonging its flank to the rear. The flank or rear is then said to be exposed.

The front rank is normally that furthest forward in the direction the body is facing. However, if contacted in flank or rear, all the figures in contact are assumed to be in a front rank.

Rash and cautious subordinate generals do not have the option of adding or deducting factors according to the players choice. Instead, rash ones always add, cautious always deduct.

We assess relative strengths in units, disregarding both semi-independent sub-units except in so far as they represent the parent unit and the number of figures for two reasons. Firstly, it is far quicker and more convenient for the players. Secondly, there are many instances from real battles of enemy strength being assessed by the number of regimental standards visible, this even being taken so far as for one side to concentrate banners in one place as a ruse to deceive the enemy, while moving most of the troops elsewhere. The testers unit is included in the friendly total.

The term "body" includes units, semi-independent sub-units, and bodyguards too small to count as a unit.

It is possible in some circumstances, as for instance when a unit is ordered to attack light troops but skirmish with heavy, and is approached by both, that more than one order can be held to apply when a reaction test is taken. In such cases, the least aggressive will apply, so that "skirmish" takes priority over "hold", and "hold" over "attack", unless a rash general is with the body, in which case the opposite applies.

Troops count as retiring if they make any move away from a near enemy or towards their sides table edge, other than to engage an enemy. This includes routs, evades, rally backs and recoils. A retirement ordered by a reaction test must be by the fastest route to and off the sides table edge. If the way is blocked by enemy troops, troops with attack orders test to charge them. Failing such a charge taking place, they must head for the nearest other table edge instead.

A body of mixed class troops counts as the higher class for occasion 1 tests, and the lowest in all others.

MOVEMENT

GENERAL

Both sides move simultaneously in accordance with their orders or any overriding reaction test instruction. The best sequence to follow has proved to be; first compulsory moves such as routs, pursuits, recoils, retirements, rallies or uncontrolled or unauthorised advances, then charges and responses, then normal moves. It is usually helpful if players tell each other what they are going to do before they start doing it, and leave a figure at a bodies original position to allow remeasurement in case interactions between the two sides make this necessary. When a situation is complicated, it also often helps if you split a move into quarters. The normal move of heavy and medium infantry is based on the Roman standard march rate, and that of lighter infantry on their emergency rate. Extra heavy, heavy and medium cavalry are assumed to move at a slow sitting trot, super heavy cavalry to walk, and light cavalry to move at an easy canter. The moves of other troops are similarly fixed proportionately to their real life speeds. Troops must move between half and the full distance they are entitled to after deductions have been made for manoeuvres and difficult terrain. They can halt only if orders and reaction justify this, or if the enemy gets in the way.

The sequence quoted above is only for general convenience & qualifying charge targets. All moves, compulsory or not, are treated as simultaneous in sorting out interactions.

CHARGING

Any move intended to result in hand-to-hand combat constitutes a charge, whether or not normal move distance is in fact exceeded. A charge move is assumed to start at normal speed but work up to a fast trot in the case of super heavy cavalry, and a gallop for other cavalry, while infantry run the last few paces.

To achieve full impact, the final quarter period of a charge must be in a straight line at right angles to the charging bodies front. A charge normally terminates on the line of first contact. However, the charger may, if he wishes, move figures which are not yet in contact straight forward up to the full extent of their charge move, provided they are still in continuous base contact with their main body, thus getting more in combat, but may not turn or wheel them, even if being charged in flank.

Both sides should write down any charge declarations they have as soon as compulsory moves have been made. The targets for these charges must be in reach *after compulsory moves*, which means for example that troops making a compulsory retirement may have moved out of reach since the start of the period and hence not be eligible, or that troops in uncontrolled advance may have come within reach. The declarations are then revealed simultaneously, and the bodies charging or charged test reaction, as do those with orders to attack in support of others already involved. They then move, splitting the move into quarters if the situation looks complicated.

This simulates intelligent, anticipation by local commanders

The situation occasionally arises when bodies unable to see each other at the start of the period because of intervening troops or terrain find their normal moves intersecting. If one of them has orders justifying a charge, they test as if this were declared in the normal way. If not, and in other cases where normal moves intersect without a charge declaration, they must halt 20 paces apart, or on first sighting if this is nearer. A charge once commenced must continue until the maximum distance has been covered, contact has been made, or a reaction test has stopped it. A countercharge can start immediately after the charge has been declared, or it can be reserved till up to three quarters of the period has elapsed.

EVADING

An evade move is an attempt to avoid contact, possible only to troops ordered to skirmish. It is the same length as a full normal move, but includes an initial turn directly away from the enemy for which no deduction is made. Any further change of direction during the evade, for example to avoid impassable terrain, must be a turn, not a wheel. If the evaders have any figures more than two ranks deep in the direction of the evade, their speed is halved.

Evaders who cannot move beyond reach of chargers remaining move are caught with their backs turned and cannot defend themselves. They do not halt prematurely because caught before the end of their move, but instead complete the move, as also do the chargers. However, if broken by the contact, as will usually be the case, their evade move is lengthened into a rout move.

If they do escape without being contacted, they will halt at the end of their full move, and if not forced to evade again next period, will instead face about and rally forward.

If evading troops who are slower than the chargers aim to interpenetrate a friendly unit, split the move into quarters to see if they are caught first. If they pass through either before or after being caught, and the chargers orders require them to follow, both sides must test charge reactions. Skirmishers whose move or position intersects with the move of enemy troops who have not declared a charge must test reaction as if being charged. If they evade, the enemy complete their move. If not, the provisions of the penultimate paragraph of the previous heading apply. Troops who shoot before evading, rather than while evading, deduct a quarter periods move.

UNCONTROLLED ADVANCE

This is possible only to irregulars, and can only be initiated by a reaction test. It simulates the situation when an irregular bodies leaders either lose control over their men or deliberately loose them in a wild charge.

The body forgets its orders, and moves at charge speed towards the nearest visible enemy in an attempt to contact them. If they do not succeed in doing so during the first period of uncontrolled advance, they repeat the attempt next period, this time moving at charge speed less 30 paces.

If no enemy are visible, the body instead moves towards the nearest point on the enemies table edge, halting on arrival. If already on that table edge, they remain halted.

Mounted troops in uncontrolled advance ignore enemy occupying terrain that they can only cross by dismounting unless these are the only enemy visible, in which case they will halt within 50 paces of the edge of the terrain and watch them.

They will not ignore enemy behind a passable obstacle, or in difficult but passable terrain, but will give priority to others in the open.

Troops who rout or pursue the period after a second period of uncontrolled advance deduct from their moves as if it were the second period of rout or pursuit.

UNAUTHORISED ADVANCE

This is the regulars equivalent of uncontrolled advance, and can only be initiated by a reaction test. It simulates the situation when a regular bodies commander decides to disregard the movement instruction part of his orders and instead advance to within 50 paces of the nearest enemy while maintaining normal discipline. If already within 50 paces of the nearest enemy when the test is taken, the body disregards all its orders and standing orders and attacks them.

While subject to unauthorised advance, a body ignores all messengers and signals, but can be recalled to its duty when reached by a general who was not present when the test was taken.

The responses of troops in unauthorised advance to there being no enemy in sight, or such enemy occupying difficult terrain or being behind an obstacle are the same as those of troops in uncontrolled advance.

Unauthorised advance does not cause troops to move at unusual speeds, become disordered, or forget standing orders or signals, though the latter may be temporarily ignored, and battlefield orders are altered.

ROUT AND PURSUIT MOVES

Rout moves are 20 paces less than charge moves during the initial period of rout, and reduced by a further 20 paces for each subsequent period of rout.

Pursuit moves are 30 paces less than charge moves during the initial period of pursuit, and reduce by a further 30 paces for each subsequent period of pursuit.

The reduction is less for routers because they have a stronger motive for speed.

RECOILING AND FOLLOWING UP

When troops either recoil after a period of hand-to-hand combat or follow up such a recoil, this is assumed to have happened more or less gradually during that period, but is deducted from move entitlement for the next period. *counts movement as if they are charged during this.*

RALLYING

Rallying is the collecting together into formation and reorganising of a body that has partly or wholly fragmented into a swarm of individuals, normally by a process of falling in on the officers and standards. There are two different methods, rallying forward and rallying back.

Troops rallying forward halt on their last position, facing in the same direction, and approximately in their original formation before becoming fragmented. They take a full period to recover their order. Troops who evaded while in cantabrian can line up two deep instead.

Troops rallying back form up approximately in their original formation before becoming fragmented, facing in the direction they were originally facing, and either 100 paces, or a normal move, whichever is the lesser, as directly as possible to the rear of the furthest point reached. They have fully recovered their order by the start of the next period.

troops who recoil from hand-to-hand combat without being followed up other than cavalry or infantry
Evading troops, routing troops, and infantry ceasing to pursue hand-to-hand opponents all rally forward. Elephantry or infantry whose charge failed to contact evaders, and troops replaced in melee can rally either forward or back.
cavalry or infantry
Other troops whose charge failed to contact evaders, who recoil from hand-to-hand combat without being followed up, troops who have failed to charge home, troops who have broken off from hand-to-hand combat, and mounted troops ceasing to pursue hand-to-hand opponents all rally back. Troops who do not pursue or follow up a routed, breaking off or recoiling enemy do not need to rally. Troops still subject to uncontrolled advance do not rally, but continue their advance.

MOVING IN HOLLOW SQUARE

Troops forming all or part of or within a hollow square can only move at half normal speed. They require a $\frac{1}{4}$ period to turn to face an attack from any direction except that in which they are moving, regardless of troop type or class. Squares have no flank or rear, but the troops comprising them may still present an unshielded side while in movement.

CHANGES IN DIRECTION

Changes of direction can be carried out by wheels, by turns, or by inclining. Wheels by columns whose frontage is no greater than that of 4 close formation, 3 loose formation, or 2 dispersed formation figures, and turns made while rallying, changing the direction of an uncontrolled advance, or initiating an evade, rout or break away, do not reduce the distance moved. Other wheels and turns do.

When wheeling, the inner figure remains stationary as a pivot, while the outer figure moves, forward only, at full normal speed if regular troops or irregular light cavalry or light infantry, at half normal speed if other irregulars.

Regular infantry and cavalry and irregular light cavalry and light infantry take a $\frac{1}{4}$ period to turn 90° or 180° other troops a $\frac{1}{2}$ period. Remember that it is the figures comprising the body that turn, not the body, so that if you start with a 2 figure deep line facing north and turn it 90° , you end up with a 2 figure wide column facing east or west, not a 2 figure deep line.

Inclining is possible only to A, B or C class regular infantry. Each figure moves forward at half normal speed while simultaneously moving the same distance to one flank, the whole time continuing to face in the original direction.

While it is simple enough to reduce normal movement by deducting a $\frac{1}{4}$ or $\frac{1}{2}$ from it, or by counting the distance moved during a wheel as double, complications occur when dealing with charge moves. This is because manoeuvres like these must be carried out during the normal speed part of a charge, being impractical at full pace. The method we have adopted is to reduce the charge move by $\frac{1}{4}$ of a normal move for a $\frac{1}{4}$ period delay, by $\frac{1}{2}$ a normal move for a $\frac{1}{2}$ period delay, and by $\frac{3}{4}$ a charge move for $\frac{3}{4}$ period delay. For example, light cavalry who turn before charging can move $240 - 40 = 200$ paces, while if they wheel for $\frac{3}{4}$ of a period the outer flank figure can move $240 - 120 + 120 = 240$ paces, the pivot figure $240 - 120 + 0 = 120$ paces.

FORMATION CHANGES

A regular bodies frontage can be expanded or contracted by up to 4 figures in a $\frac{1}{4}$ period, that of an irregular body by 2.

A complete period is required to form a wedge or hollow square, and a $\frac{1}{2}$ period to turn these into a column with the same maximum frontage, or to change a 4 figure wide column to or from a testudo.

Dismounting or disembarking takes a $\frac{1}{2}$ period, remounting and embarking a whole period. No animal holders are required as the mounts are assumed to be picketed 20 paces behind the original dismounted position. The troops must return to this position to remount. If the enemy get there first, the animals will be dispersed beyond recovery. Dismounted cavalry and camelry are treated as infantry meeting the same description. Elephant crews do not dismount, and irregular A and B class cavalry will only dismount if their general personally comes to them and orders it. Chariot weapon factors already take into account a limited amount of fighting around as well as in the chariot, so their figures are not dismounted.

Figures that fight hand-to-hand during one period as part of an overlap can lap round further onto their opponents flanks or rear if no fresh figures are brought up to meet them next period, unless forced to recoil. To lap up to three figures round on each flank takes a $\frac{1}{4}$ period, and others may then be added to them by expanding frontage in the usual way.

Time taken in formation changing is deducted from movement in the same way as that taken in changing direction. Remember that a body that recoils or follows up a recoil has already lost 20 paces from its movement entitlement, leaving that much less for formation changes.

You may notice that it is possible for a unit to expand sideways faster than the normal marching rate of the troops. This is because formation changes were often carried out at increased speed, just as in the 18th century British infantry marched forward at 78 paces to the minute but deployed at 125. It is emphatically not permissible to expand on one flank while contracting on the other in order to evade movement restrictions.

EFFECT OF DIFFICULT TERRAIN ON MOVEMENT

Movement in the following conditions counts as twice the actual distance for infantry, four times the actual distance for cavalry, who in addition are limited to normal moves except when in rout, and is impractical for vehicles.

1. On steep hills.
2. Among buildings and garden enclosures, or through breaches in fortifications.
3. In woods.
4. Over boggy ground.
5. Over soft sand.
6. Over linear obstacles such as streams and field boundary hedges and walls, all of which are assumed to have a minimum width of 20 paces, as space is needed for troops to sort themselves out prior and subsequent to the crossing, and for cavalry to have room to jump at practicable points.

Elephants are treated in the same way as cavalry in case 2, and as infantry in case 6, otherwise as vehicles. Camels are treated in the same way as infantry in case 5, otherwise as vehicles.

Man-handled light bolt-shooting artillery engines are treated in the same way as cavalry, other artillery as vehicles.

Movement in the following conditions is only practical for infantry, who count double the actual distance.

1. Inside buildings, or on stairs or ladders, or on ramparts.
2. Through marsh.
3. On rocky slopes.
4. Over linear obstacles such as palisades, turf ramparts or abatis, these being assumed to have a minimum width of 20 paces.

Rivers at least 30 paces wide can only be crossed by elephants, cavalry, or swimming light or light medium infantry, all counting four times the actual distance, or by bridges, fords or boats. A river section which is not a known ford is in fact fordable if an ordinary die thrown on behalf of the first party to attempt to cross it scores a larger number when multiplied by ten than the rivers width in paces. Both types of ford double the distance to all troops.

Rivers less than 30 paces wide are treated as streams.

Rivers and other linear obstacles continue to slow movement until the whole of the body has got across and is clear. In addition to this slowing of movement, they also impose an initial quarter periods delay when the leading figures of a body other than of light infantry first meet them.

Movement along roads or paths or over bridges cancels all difficult terrain movement penalties except that all troops count twice the actual distance when moving UP a steep hill.

There is no movement penalty for gentle hills, although these still confer height advantage for vision, shooting and hand-to-hand combat.

INTERPENETRATION

Troops can charge through friends who are neither disordered, forced to recoil by hand-to-hand combat during the previous period, nor going to move this period, other than to make room, in the following circumstances:

1. Light cavalry through light infantry.
2. Chariots through light infantry or light cavalry.
3. Elephants through light infantry.
4. Light, light medium or light heavy infantry through chariots or artillery.
5. Light infantry through extra heavy, heavy, medium and light cavalry or camelry.
6. Medium, heavy or super heavy infantry through previous ranks, armed with heavy throwing weapons, of their own regular body.

Such charges can be used to replace a rank already engaged in hand-to-hand combat with another. They must be justified by orders, standing orders or signals, and if the body being charged through is not engaged in hand-to-hand combat, the target of the charge must be visible to some of the chargers. The rank being replaced neither inflicts or suffers hand-to-hand casualties that period, but if it does not belong to the same body as the chargers, it, but not the chargers, becomes disordered.

It is still the same melee, not a new one.

The troops replaced retire the minimum distance to make room for the new rank.

An engaged rank which is still subject to uncontrolled advance cannot be replaced in combat.

An interpenetration sanctioned above can also take place other than in a charge, in which case those penetrated only become disordered if those penetrating are already so. However, the following similar non-charge interpenetrations do not disorder those penetrated even if those penetrating are disordered:

1. Light infantry through any troops in good order and stationary throughout the period.
2. Light cavalry through light infantry or light cavalry who are in good order and stationary throughout the period.
3. Regular cavalry through one differently armed rank of their own body who are in good order and stationary throughout the period.

All other interpenetrations cause both parties to become disordered. However, regular close order troops can refuse to be interpenetrated by friends other than routing elephants.

For interpenetration purposes any change of formation or direction counts as moving.

EFFECT OF DIFFICULT TERRAIN OR DISORDER ON MANOEUVRE

Expansion and contraction of a bodies frontage is halved in difficult terrain.

All delays and movement reductions for changes of formation or direction are doubled for disordered troops.

This means, for instance, that regulars trying to expand their frontage in terrain that both slows and disorders them can only do so by 1 figure per $\frac{1}{4}$ period.

MOVE DISTANCES

	Normal	Charge
Super heavy cavalry.	80 paces.	120 paces.
Extra heavy, heavy and medium cavalry.	120	180
Light cavalry.	160	240
Super heavy infantry.	40	60
Heavy and medium infantry.	60	80
Light heavy, light medium and light infantry.	80	100
Heavy chariots.	80	120
Light chariots.	120	180
Non-Burmese Elephants	80	100
Burmese and dummy elephants.	80	80
Extra heavy camels.	80	120
Heavy & medium camels.	120	120

Man-handled light bolt-shooting engine.	60	None.
Light bolt-shooting engine on mule cart.	120	None.
Ox-drawn engines and towers or penthouses.	40	None.
Ox or horse drawn wagons .	40	None.
Pack animals and mounted infantry.	80	None.
Boats under oars: Up or directly across stream or tide.	60	None.
Angled down stream or tide.	120	None.

USE OF SHIELDS

Figures shot at or attacked from the rear or from behind an unshielded flank, or with no shield at all, or simultaneously using a weapon requiring both hands such as a bow, staff sling, pike, long axe or rhomphaia, or using hands for climbing, carrying or pushing, cannot claim to be using shields. Troops with weapons requiring two hands can of course use shields if not at that moment using the weapon. as for instance pikemen who are not charging or in melee, or have taken to their swords after recoiling. Super heavy cavalry and super heavy infantry form a partial exception in that, because of their exceptionally complete armour, they are only counted as shieldless when being shot at by crossbows, which readily pierce their armour but are stopped by a shield.

Troops overlapped by an enemy line which has not bent round them do not count as shieldless unless other reasons apply.

It is often pointed out to us that the use of a pike only partially hinders the use of a shield in real life, and that some protection is available from the pike shafts sloping forward. We agree, but consider the difference made too small to be worth special provision being made. We have instead increased pike weapon factors to compensate.

Mantlets are not treated as shields, but constitute cover, against shooting only, for the bearer and one other figure. Similarly, if a Persian props up his shield in front of him with his spear to shoot over the top, he counts as unshielded but behind cover. Setting up this arrangement, or taking up spear and shield again, each take half a period.

OPTIONAL RULES FOR FATIGUE

We frequently receive suggestions that there should be some recognition of the fatigue factor in our movement rates and combat effects. This has in fact been done to a limited extent in that certain heavily armoured troops are restricted to lower speeds than they are theoretically capable of to avoid excessive fatigue, just as they were in real life. For example, our SHC, like their historical prototypes, manoeuvre at the walk and not the trot, and charge at the trot, not the gallop. Similarly, the cumulative effect of our reaction tests is partly inspired by modern research which has shown that fear and fatigue are largely interchangeable.

However, the short distances actually covered by figures during a game do not justify much emphasis being placed on purely physical fatigue. For example, the furthest that super heavy infantry are likely to move during a game is about 300 paces. As a historical example, the English knights at Agincourt moved forward over 1200 paces dismounted without significant fatigue, though they stopped once or twice for a breather, and the French, who did become significantly fatigued, advanced about 300 paces over soft ground and then fought for an hour or more before their efficiency was seriously reduced. We do not therefore personally consider the extra complication justified.

For those that do, we recommend the following optional rule. At the start of the game, record an initial fitness value for each body. This should normally be 8 for super heavy troops, 10 for extra heavy or heavy, 12 for others. However, 2 should be deducted from D class troops, and 2 from troops who have forced marched or flank marched.

A further 1 is now deducted at the end of each period if the body has either fought hand-to-hand, been shot at, or moved. If the move was further than a normal move, the deduction is doubled.

A body that has its fitness value reduced to 0 has all its moves halved, takes twice as long to change direction or formation, deducts an extra 2 in all reaction tests, cannot count a plus random factor when shooting or fighting hand-to-hand, and always counts a full minus random factor regardless of its troop class. If its fitness value is then further reduced to -5, it cannot fight, shoot or move.

DISORDER

This heading is used to cover those factors, physical and psychological, which temporarily affect a body's cohesion, and thus its efficiency.

Recovery occurs automatically at the start of the first period after all possible causes cease to apply, unless the body is retiring, in which case recovery will not occur until it has halted.

A disordered body counts the figures of its nearest rank only when shooting or fighting, and these only at half effect.

Its ability to change formation or direction is also reduced. These penalties are imposed only once, regardless of the number of causes operating.

Possible causes of disorder apart from a reaction test result, are:

1. Having evaded or routed and not yet rallied, having been engaged hand-to-hand by a fresh enemy force that period while pursuing or rallying forward or back, or having woken that period from sleep. Mounted or heavier troops who break light infantry during the initial period of a melee are, however, not disordered by meeting fresh enemy during the initial period of pursuit, *and enemy who broke off contact with the unit last period are not regarded as fresh enemy.*
2. Having been contacted in a charge that period before completing a formation change, mounting or dismounting, embarking or disembarking, or on flank or rear figures that have not completed turning to meet it before contact. *Note that a contact on the base side of an end front rank figure is not a flank attack if the figure behind it has turned to face the flank. Mounted infantry must always attempt to dismount to fight. Figures caught turning complete the turn & fight disordered. Mounted infantry who choose not to dismount fight disordered.*
3. If forced to recoil by cavalry charging into melee that period. If the recoil was partly caused by other troops, it only counts as caused by the cavalry if these inflicted more casualties than they received.
4. If light medium or heavier infantry who are moving at the moment that they are contacted by charging mounted troops who have themselves moved for at least a quarter period, or half a period if heavy chariotry, since completing any formation or direction changes.
5. If troops other than light, light medium or light heavy infantry, who have had formation or direction changes or movement other than following up recoiling opponents or by a front rank replaced in melee by another of the same body, slowed by difficult terrain during the current period.
6. If advancing out of control for the second period in succession, or changing direction or formation while still subject to uncontrolled advance, or if forced to recoil by hand-to-hand combat while still subject to uncontrolled advance. *Following up while subject to uncontrolled advance does not disorder.*
7. Having been interpenetrated that period by friends other than those allowed to do so without penalty, or forced by hand-to-hand combat to recoil against an impassable obstacle or unyielding friends, or over difficult terrain.
8. *Mules, camels or* Non-Indian horsed troops within 30 paces of elephants if there are real or dummy elephants in their own army or within 100 paces if there are none, *mules or* non-Arab horsed troops within 30 paces of camels, elephants within 30 paces of dummy elephants, or attacked with fire weapons or any troops at the end of a period in which elephants or chariots have been fought hand-to-hand and not forced to recoil or during the period following such fighting.

Disorder is usually held to start when the cause is first experienced, even if this is part way through a period. However, a body in melee throughout a period still counts as disordered for melee calculations, even if disorder commenced much later.

SHOOTING

TIMING

All the shooting by the men represented by a figure, whether consisting of repeated shots by each man, a single shot by each man, or shots by a proportion of those men armed with weapons taking longer than the time represented by a period, is treated as a single event. This can be assumed to take place at any suitable time within the period.

Shooting is normally adjudicated after all moving has been completed and before hand-to-hand combat commences. However, if a target is to be engaged at the start of the period before it moves out of reach, it is convenient to adjudicate that shooting before moving, while remembering that in theory it is being adjudicated after moving. This may be important when taking a "two casualty per figure" reaction test. Similarly, when a unit is being both shot at and fighting hand-to-hand, it is often convenient if it is relatively isolated to go straight on to its hand-to-hand adjudication before completing shooting by other units.

This is left to the discretion of the players concerned.

AMMUNITION SUPPLY

This is not taken into account, except in assuming a lower shooting rate than that theoretically possible, the assumption being that men either shoot steadily at a slow rate to conserve missiles, or else rapidly for part only of the period. Except in the most protracted real life ancient battles, initial issues and replenishment at unit level, together with salvaged enemy missiles, proved quite sufficient. Rules previous to ours, in which ammunition expenditure, resupply, and salvage were dealt with in detail, demonstrated to our satisfaction that such features slowed the game excessively, largely reducing it to book keeping.

TARGET PRIORITIES

All troops armed with missile weapons intended for use at a distance must obey the following target priorities.

1. An enemy formation advancing towards their own and close enough to charge it this period or next.
2. At least half their own number of figures shooting at them from within their own range.
3. Enemy charging, in hand-to-hand combat with, or shooting at friendly troops that they are ordered to support, even if primary method of support is not by shooting, or enemy or animals they have been ordered to treat as a priority target.
4. Any enemy who are shooting at them from within their own range.
5. Any advancing enemy.
6. The nearest enemy.

These priorities are cumulative. For example, if two enemy units are eligible as targets under 5, each figure must shoot at the enemy unit nearest to him, under 6. Note that two small units shooting at separate targets are likely to be more effective than a large one splitting its effort.

RANGES

These are based on effective, not extreme ranges, that is, the distance at which the results achieved justify the expenditure of ammunition required. The majority are taken direct from ancient and medieval manuals.

Light hand-hurled weapons.	40 paces.
Archers normally mounted on horses, camels or elephants, or in chariots.	180 paces.
Infantry archers.	240 paces.
Slings.	120 paces.
Staff slings.	240 paces;
Crossbowmen normally mounted on horses or elephants, or in chariots.	240 paces.
Infantry crossbows.	300 paces.
Artillery.	480 paces.

Heavy hand-hurled weapons thrown only at point blank range immediately before contact are not included here as their effect is taken together with their supporting hand-to-hand weapons rather than separately, thus simplifying adjudication.

Mounted infantry achieve infantry ranges, but must dismount to shoot.

Troops who are uphill from their targets or are shooting from elephants or raised ramparts at troops who would be otherwise at the same level add 20 paces to these ranges. Similarly, troops downhill from their target or shooting up at a rampart, but NOT those shooting up at elephants at the same level, deduct 20 paces.

Troops higher up a terrain slope are always considered to be higher than an elephant or fortification. Troops shooting from elephants, ramparts and house roofs are assumed to be at the same height, but stone walls are higher than these, and towers and inner stone walls are higher than other walls.

All weapons have their ranges reduced to 20 paces when shooters and target are both inside a wood. Troops shooting out from the edge are not affected.

SHOOTING ARCS

Troops who are advancing on foot or have any figures shooting over others of their own body can shoot within $22\frac{1}{2}^{\circ}$ of straight ahead. In other circumstances, non-Burmese elephant crew, chariot crew, a second archer on a camel, and light cavalry shoot all round, light infantry and light man-portable bolt-shooting engines within 45° of straight ahead, and other troops within $22\frac{1}{2}^{\circ}$ of straight ahead. Burmese elephants with large crews sitting sideways in two tiers shoot only with upper tier figures, half of these being permitted to shoot in any 180° of arc. Armed elephant and chariot drivers do not shoot. Troops must be facing in a suitable direction for at least a quarter period to shoot.

SHOOTING OVERHEAD

Shooting over intervening troops is possible only when one of the following applies:

1. When shooting down from or up at elephants, ramparts, hills or similar elevations.
2. When infantry shooting with crossbows over one preceeding rank of the same stationary body.
3. When cavalry or irregular infantry shooting with bows over one preceeding rank of the same body.
4. When regular infantry shooting with bows over up to three preceeding ranks of the same body.

In cases 2,3, and 4, only the nearest enemy body can be engaged, though if the front rank of this is ineligible as a target, others of its ranks further to the rear can be engaged instead in cases 3 and 4. A body is not eligible to shoot under cases 2,3 or 4 if it is disordered, or if it has interpenetrated with another body or changed formation earlier in the period, or if A, B or C class archers within 20 paces of their target, or if D class archers within 100 paces of their target.

In case 2, differently armed men in front of the crossbows are assumed to kneel, while if both ranks have crossbows, the second rank is assumed to pass loaded weapons forward.

All overhead shooting is penalised except when one of the following applies:

1. When shooting down from a slope with no intervening friends, either of the same body or a different one, within 20 paces of the target or shooters.
2. When shooting from one slope to the same level on another, with no intervening friends within 10 paces of the target or shooters.
3. When shooting down from a vertical elevation such as an elephant or rampart.

There is no overhead shooting in woods.

Cavalry, camelry and cart-mounted artillery are not sufficiently higher than infantry to shoot or be shot at over them on level ground as would be the case with elephants. However, camels disguised as elephants are elephant height.

SHOOTING ON THE MOVE

All troops except staff slings, crossbows and artillery, all of whom must be stationary for the whole period, can shoot while advancing at normal speed. Light cavalry, second camel archers and chariot and elephant crew can shoot in retirement.

If one body interpenetrates with another, only one of them can shoot that period.

SHOOTING DURING A CHARGE OR PURSUIT

Troops armed with missiles other than hand-hurled weapons can shoot at an enemy charging from more than half his possible move distance away, or who must spend equivalent time changing formation or direction, before evading or taking up their hand-to-hand weapons. Figures which will not be contacted by the chargers, and who will not aid in fighting them from an overlap or from a rear rank, can always shoot at them unless evading and not able to shoot before or during retirement.

Figures of a charging body which is not in uncontrolled advance may shoot if they are in a rank that will not initially fight hand-to-hand and do not exceed normal move distance. Otherwise, charging or pursuing troops may shoot only if the enemy succeeds in moving out of reach, and then do so at the end of the move. They will be disordered, but their targets will be assumed to have their backs turned, and so will count shieldless.

The effect of hand-hurled weapons flung during or immediately before close combat is included in hand-to-hand combat weapon factors.

SHOOTING INTO A MELEE

Front rank figures engaged in hand-to-hand combat, or fighting in it as an overlap, or any troops of a body that is pursuing or pursued and is still in contact, are not eligible as missile targets.

CREW-SERVED WEAPONS

Each crew figure of an elephant, camel or chariot except drivers or lower tier Burmese shoots with the weapons with which he is depicted.

Artillery count the crew figures as shooting and not the engines. As different sizes of engine have different crews, this provides a simple method of varying the effect with the size of machine.

WEAPON FACTORS

These are used in conjunction with tactical and random factors and the number of figures shooting to calculate enemy casualties.

There is another set of weapon factors and tactical factors for hand-to-hand fighting. As the method of calculating casualties is the same in both instances, it is given elsewhere in the rules instead of being duplicated.

Weapon factors for shooting at various targets are as follows:

	SHC	EHC	HC	MC	LC	SHI	HI	MI	LI	HCh.	LCh.	El.
		EHCm	HCm	MCm			LHI	LMI	Art.			
Light hand-hurled weapons, slings and bows.	0	1	2	4	3	0	1	2	2	2	1	1
Crossbows and staff slings.	2	2	2	2	1	1	1	1	0	2	0	1
Artillery.	2	2	2	2	1	2	2	2	1	2	0	2

TACTICAL FACTORS

These are added to or deducted from the weapon factors. They are cumulative.

Deduct 1:

If troops armed with bows or crossbows have any figures shooting at more than half range.

If any figures are penalised for shooting overhead.

If any figures penalised for shooting overhead are shooting over more than one friendly rank on the same level.

If the target body is moving at least 60 paces or into contact.

If the target body is of charging, pursuing or routing cavalry or chariots.

If any troops except stone-throwing engines are shooting at troops among trees or behind partial hard cover.

Add 1:

If shooting at SHC, EHC, HC, MC, LC, SHI, HI, LHI, LI, EHCm, HCm or MCm who are unable to use shields with any weapons except artillery.

Add 2:

If shooting at MI or LMI who are unable to use shields with any weapons except artillery.

RANDOM FACTOR

This is added to the total of weapon factor and tactical factors.

Throw one red or green "average" die numbered 2,3,3,4,4,5 counting minus, and one black or blue die counting plus. The plus die should be "average" for regular troops, but an ordinary die for irregulars. For all but D class troops, the random factor will be -1 if the minus dice scores higher, +1 if the plus dice scores higher, and 0 if the scores are equal.

D class troops count both plus and equal scores as 0, and count the full excess of the minus die score over the other as minus, i.e. a minus score of 4 and a plus score of 1 is taken as -3.

Random factors are established for each body, each period that it shoots.

HAND-TO-HAND COMBAT

TIMING

Hand-to-hand combat is normally adjudicated after movement and shooting are completed. However, if troops are in contact with an evading or routing enemy who will pass out of reach during movement, it is often convenient to adjudicate casualties before they do so. It is possible in these circumstances to fight twice in a single period against successive enemies.

TROOPS ELIGIBLE TO FIGHT

Figures or models are able to take part in hand-to-hand combat if:

1. They are in at least partial base to base contact with an enemy to their front.
2. They are prolonging a line of contact in an overlap of up to three figures or one model on an enemy figures unshielded side or rear or on the side or rear of an elephant, chariot or artillery model, or by a single figure or model on an enemy figures shielded side.
3. They are regular SHI, HI, LHI, MI or LMI who are not shooting, are in a rank permitted to fight, and are directly behind a similarly armed figure of the same body eligible under 1 or 2, Only EVERY SECOND FIGURE FROM THE RIGHT fights.

4. They are crew figures of an elephant, chariot or artillery model which is in base contact with enemy on any of its faces, or a second crew figure of a camel similarly contacted.

An elephant can have an armed driver and two other figures fighting to its front. Chariots with armed drivers riding the horses or balancing on the pole between them can have these and two archers inside the chariot body fighting to the front. Other chariots cannot have armed drivers, and unless Chinese can have only one figure fighting to the front, who must be an archer if the crew includes one.

Up to half the armed figures of an elephant or chariot crew can fight back against enemy attacking each of the models flanks, and up to two against enemy attacking its rear. If engaged only to flank or rear, only the crews share of the weapon factor is counted. If any of the crew are armed with pike or long thrusting spear, then all the models opponents count as facing these.

Artillery count each crew figure as fighting, with no limit on the number per face. A camel with two riders has one fighting ahead, the other in all other directions, never both in the same direction.

An irregular body fights with only its front rank figures, a disordered body with these at half effect

In other cases the number of ranks allowed to fight depends on the weapons used and has been selected to encourage the use of tactical formations recommended by ancient military manuals.

For example, pike armed infantry initially fight with all their first rank figures, and half those of their second, third and fourth ranks, this corresponding to the 16 man depth recommended for a phalanx, infantry with spears or throwing weapons with all the first rank and half the second, while those with two-handed cutting weapons fight only with their first rank figures.

One type of figure fights as if two figures. This is an A class irregular, such as a Viking Berserk, cast with no shield but with weapons in both hands. These each inflict casualties as if two figures armed with sword alone, but receive casualties as one figure. They count as double armed but shieldless and cannot carry missile weapons of any kind.

A melee consists of one or more periods of hand-to-hand combat. It starts with a charge and ends when all of one side flee or become casualties. A fresh body charging into a formed melee at a later stage counts this as an initial melee period. Its opponents or previously unengaged figures of a body already involved, do not.

A general who joins a body to fight in the front rank fights as his bodyguard type if it is a mounted body, or if more than one bodyguard figure so fights in addition to the generals figure. Otherwise, they are assumed to dismount to fight on foot, and so count as extra figures of the bodies own type.

WEAPON FACTORS

These are used in conjunction with tactical and random factors and the number of figures shooting to calculate enemy casualties. The factors for various weapons against each type of target and the maximum number of ranks allowed to fight are as follows:

	Ranks	SHC	EHC	HC	MC	LC	SHI	HI	MI	LI	HCh.	LCh.	El.
			EHCm	HCm	MCm			LHI	LMI	Art.			
Cavalry or camelry armed with 12' kontos or similar spear normally couched, during the initial period of each melee.	1	2	3	4	5	5	4	4	4	5	0	0	0
Cavalry or camelry armed with lighter spears, whether primarily intended for thrusting or throwing, javelins or darts, during the initial, second or third period of each melee.	1	0	2	2	4	3	2	3	4	5	1	2	1
Other cavalry or camelry weapons or circumstances.	1	0	1	1	2	2	1	2	3	5	0	0	0
Infantry armed with 15 to 24' pike grasped in both hands, if not yet forced to recoil in current melee.	1 3/2	3	4	5	5	2	1	2	3	2	3	4	1
Infantry armed with 8 to 12' long thrusting spear grasped in one hand, if not yet forced to recoil in current melee.	1 1/2	1	2	4	4	3	1	2	3	3	2	3	0
Infantry armed with heavy throwing weapon, during initial period of each melee or while fighting against elephants.	1 1/2	2	2	2	2	2	2	4	5	3	2	2	2
Infantry armed with lighter spears than above, whether primarily used for thrusting or throwing, javelins or darts, during initial period of each melee or while fighting against elephants or chariots.	1 1/2	0	1	2	4	3	1	3	4	4	2	3	2
Infantry primarily armed with long thrusting or lighter spears or with throwing weapons, in circumstances other than above, or armed with sword alone.	1	2	2	2	3	3	1	2	3	3	1	1	0

Infantry armed with heavy axes, rhomphaia, massive clubs, or any other weapon needing to be swung with both arms.

1 5 5 5 5 4 4 5 5 3 1 1 1

Pikemen who have been forced to recoil, archers, slingers, staff slingers, crossbowmen, and artillerymen.

1 0 0 0 1 1 0 1 2 2 0 0 1

Chariot and driver

1 4 2 2 3 2 4 3 4 2 2 3 0

Elephant and driver

1 5 3 3 4 1 3 3 3 2 5 1 2

Add 2 for each armed crew figure, other than drivers and Burmese, fighting with light spears, javelins or darts against any but super or extra heavy troops.

Add 1 for each other armed ^{fighting} crew figure, and, if charging, following up or pursuing any troops except elephants, for each chariot horse ~~entitled to charging, following up or pursuing tactical factor.~~ Dummy elephants fight as camels.

TACTICAL FACTORS

These are added to or deducted from weapon factors.

Deduct 1:

If troops, except pike-armed infantry, who are faced by the pikes or long thrusting spears of infantry who are not disordered and have not been pushed back during the current melee, or those of chariot or elephant crew.

For each casualty received per cavalry, infantry, camelry, artillery crew or chariot horse figure or elephant model from shooting during the current period.

If infantry fighting to cross a defended linear obstacle such as a stream, ditch, hedge, palisade or parapet. A wood edge does not constitute such an obstacle.

Deduct 2:

If mounted troops fighting to cross a defended linear obstacle.

Add 1:

If charging for at least a quarter period after completing any director or formation changing, or for half a period if heavy chariotry, pursuing, or following up opponents.

If A, B or C class troops charging in, or otherwise subject to, uncontrolled advance.

If upslope of opponents or having moved down a slope to engage them during the period.

If opponents are EHC, HC, MC, LC, HI, LHI, LI, EHCm, HCm or MCm who are unable to use shields.

Add 2:

If opponents are MI or LMI who are unable to use shields.

If fighting against the flanks or rear of SHC or elephants ^{or to the rear of SHI.}

If pursuing routed troops some of whom are still in contact at the end of the period.

RANDOM FACTOR

This is added to the total of weapons factor and tactical factors.

Throw one red or green "average" die numbered 2,3,3,4,4,5 counting minus, and one black or blue die counting plus. The plus die should be "average" for regular troops, but an ordinary die for irregulars. The random factor for C class troops is the difference between the dice scores, i.e a minus score of 5 and a plus score of 2 gives a random factor of -3.

The factors for other troop classes are calculated in the same way, except that A class and B class troops cannot have a random factor lower than -1, and D class cannot have a random factor better than +1.

If the General fights hand-to-hand in the front rank of A,B, or C class troops, the body he is with cannot have a random factor worse than 0. This is especially valuable for irregular troops. However, if an irregular general refuses a challenge to personal combat by an opponent of equal rank, he loses this power.

Random factors are established for each body each period that it is in hand-to-hand combat.

Infantry fighting mounted count a class lower than if on foot.

CASUALTIES

CASUALTY CALCULATION

Having totalled the appropriate weapon factor, any tactical factors that apply, and the random factor, read down the column on the extreme left of the table below until you come to the equivalent number. Now read across until you come to the column corresponding to the number of your troops shooting or fighting. The box where row and column meet gives the number of enemy casualties in men. Divide by 20, remove that number of figures, and carry any remainder forward.

If the body is more than one rank deep, figures removed as casualties can be taken from any rear rank. Otherwise, take them from the most hotly engaged flank.

If the body consists of more than one type of troops, their casualties must be recorded separately.

Total
of
Factors

NUMBER OF OWN FIGURES

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
-5	0	0	0	0	0	1	1	1	1	1	1	2	2	2	2	2	2	3	3	3
-4	0	0	0	0	1	1	1	1	2	2	2	2	2	2	3	3	3	3	4	4
-3	0	0	1	1	1	2	2	2	3	3	3	4	4	4	5	5	5	5	6	6
-2	0	1	2	2	2	3	3	3	4	4	4	5	5	6	6	6	7	7	8	8
-1	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10
0	1	1	2	3	3	4	4	5	6	6	7	7	8	9	9	10	10	11	12	12
1	1	2	2	3	4	5	6	6	7	8	9	10	10	11	12	13	14	14	15	16
2	1	3	4	5	6	8	9	10	11	13	14	16	17	18	19	21	22	23	24	26
3	2	3	5	6	8	9	11	13	14	16	18	19	21	22	24	25	27	29	30	32
4	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
5	3	5	8	10	13	15	18	20	23	25	28	30	33	35	38	40	43	45	48	50
6	3	6	9	13	16	19	22	25	28	32	35	38	41	45	48	51	54	57	60	64
7	4	8	12	16	20	24	28	32	36	40	44	48	52	56	60	64	68	72	76	80
8	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
9	6	13	19	25	32	38	44	50	57	63	69	76	82	88	95	101	108	114	120	126
10	8	16	24	32	40	48	56	64	72	80	88	96	104	112	120	128	136	144	152	160
11	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200
12	13	25	38	50	63	76	88	101	114	126	139	151	164	176	189	207	214	227	240	252

If the total of factors is more than 12, count it as 12.

Examples:

Ten light infantry figures with slings exchange shots with light cavalry horse archers galloping past their front. All the slingers have a cavalry figure within 45° of straight ahead at some stage of the period, so all can shoot. The slingers weapon factor against light cavalry is 3. Tactical factors are -1 because the cavalry are moving more than 60 paces, +1 because horse archers cannot use shields while shooting. The red dice scores 3, the black dice 5, so the random factor for C class troops is +1. Factors total 4, so ten slinger figures cause 20 casualties. One figure is removed, and there are no surplus casualties to carry forward. As shooting is assumed to be simultaneous, the figure removed still counts as shooting that period, though he would not count in melee.

An elephant model carrying an unarmed driver, a figure with a pike, one with javelins, and one with a bow charges into a body of light infantry with javelins. The basic elephant factor against light infantry is 2. Only two of the crew figures can fight forward, and the player chooses the javelinman and pikeman. These increase the elephants factor by 2 and 1 respectively. The elephant gets +1 for charging, the red dice is 3 and the black dice is 5. Its total factors are therefore $2+2+1+1+2=8$. One at a factor of 8 causes 5 casualties.

Two light infantry figures are in base contact with the elephant, and three overlap it on each side. Their weapons factor is 2, there is a -1 tactical factor for facing pikes, and the red dice is 4 and the black 3, giving a random factor of -1. Eight at 0 causes 5 casualties, so honours are equal in the first period.

During the second period of the melee, the overlapping infantry figures lap round into contact with the elephant models base sides. All the elephants crew can now fight, so its weapons factor becomes $2+2+1+1$. The red and black dice are both 2, so the random factor is 0. One at 6 causes 3 casualties.

Having been opposed by an elephant last period, the light infantry are disordered, and can fight only at half effect. Six of the figures are now in contact with the elephants flanks, and so have a +2 tactical factor.

The red dice is a 2, the black a 3, giving a +1 random factor. Three at $2+2+1$ cause 8 casualties, and one at $2+1$ causes 2. The elephant has therefore suffered 10 casualties and inflicted only 3, and will ~~die~~ *recoil* next period.

The last example was chosen because it was complicated. Most melee calculations are as simple as the shooting calculation quoted first.

SPECIAL TARGET VULNERABILITIES

Casualties to elephants, chariots or artillery are regarded as on the model as a whole rather than on the figures comprising it. Although each model represents only eight, twenty casualties are needed before it is removed, as some will hit woodwork or other non-vulnerable parts.

When calculating casualties per figure, however, these should be counted as per elephant model, per chariot horse, per camel, and per artillery crew figure.

Dismounted cavalry count as if infantry in the same armour, and similarly, mounted infantry as cavalry. Troops engaged in mounting or dismounting always count as a mounted target.

Riderless animals count as shielded EHC if armoured and shielded MC if unarmoured. Pack animals belonging to a body of troops can be singled out as targets if the priority rules permit and if they are exposed. A dummy elephant counts as a pack animal which is behind cover if shot at, in the open if attacked hand-to-hand.

RISK TO THE GENERAL

A figure representing a general and his 19 inner bodyguards must take a proportionate share of casualties from hand-to-hand fighting or shooting. Divide the total casualties from hand-to-hand combat by the number of figures fighting in the front rank, shooting casualties by the number of figures in the body being shot at. Debit this share from the general's figure instead of from the body. If more than a single body guard figure fights in the front rank with a general who joins a body, "body" implies the bodyguard. If not, it implies the body joined.

Multiply the number of casualties on the figure that period by the score of one die, which should be "average" for a regular general, or ordinary for an irregular. If the result exceeds the number of men remaining to the figure at the start of the period, the general is wounded and must be escorted from the field by his bodyguard, or surrender if this is impractical. If the figure loses all its men, the general is dead.

Shooting can only be concentrated on the figure if it is more than 20 paces from one of its own units and is neither moving to give or accept, or returning from, a challenge, or if it stands clear vertically, as when mounted on an elephant or standing on a tower or similar vertical elevation.

If a general accepts a challenge to personal combat, the two figures fight hand-to-hand, first exchanging arrows if bow armed, the usual restrictions on shooting during a charge not applying. Normal weapon, tactical and random factors apply, except that a general cannot have a random factor worse than 0. None of the normal causes of disorder apply. If a general is mounted on an elephant or in a chariot, any other armed figures aboard are debarred from assisting him. A general who receives more casualties than his opponent is wounded and taken prisoner, one who receives twice as many, dead. If casualties are equal, fight again with hand-to-hand weapons only. Challenges, are issued immediately after deployment and challenged generals cannot pretend ignorance of them.

Loss of a general leads to a reaction test, not necessarily to the loss of the game. However, a wounded or otherwise disabled general cannot give orders or make signals, so his army must continue fighting without further guidance.

AFTER HAND-TO-HAND COMBAT

After a period which included hand-to-hand fighting, check whether any of the units or semi-independent sub-units involved have recoiled under enemy pressure or broken.

If such a body has received more hand-to-hand casualties than it has inflicted, and has also received in total, i.e. including any shooting casualties received, one casualty for each of its figures, it recoils 20 paces. It does so continuing to face its opponents. Although the movement is assumed to take place more or gradually during the combat period, the figures are actually moved next period, the distance being deducted from the full movement entitlement for that period.

The requirement for one shooting or hand-to-hand casualty per figure in the body is waived if 5 hand-to-hand casualties have been received for each figure in contact with the enemy or fighting as part of an overlap.

If a body is fighting more than one enemy body, either simultaneously or successively, remember that you must total all the casualties it receives from them that period, and compare this with the total of all the casualties it inflicts. The single body is NOT split into two separate entities.

If all a body's opponents recoil, it must follow up unless prevented from doing so by orders to hold or by a reaction test. If facing in more than one direction, it may follow up in a single direction, or in more than one if the player so wishes.

Troops who recoil are disordered by this if still subject to uncontrolled advance, if they cannot move back the full 20 paces because of impassable terrain or intervening friends, or if the movement is over terrain which in other circumstances would slow their movement. A recoiling unit cannot interpenetrate with friends to its rear, nor will these be pushed back out of its way unless they are light infantry with no figure more than three figures deep.

When a body is opposed by more than one non-recoiling enemy body, and must itself recoil, it does so in both directions. If this is not possible, as it would be for example if two of the directions were opposed, it is disordered.

Recoil or following up movement is always 20 paces, and is not reduced by difficult terrain. However, the total movement permitted to the body is reduced by such terrain, so the effect is to reduce the remaining movement available. Any linear obstacle crossed during the 20 paces is also deducted from the remaining move.

Cavalry or chariots which have recoiled but not been followed up must rally back before they can charge again. Other troops rally forward. Troops whose opponents have recoiled but which have not followed up need not rally, but must not advance that period.

A body that has recoiled for a sufficient number of consecutive periods is broken.

D class troops break instead on the first occasion that they would otherwise recoil, C class on the second, B class on the third, and A class on the fourth.

Troops also break instead of recoiling if they are both disordered and receive twice as many casualties hand-to-hand as they inflict. As troops forced to recoil by a cavalry charge are disordered by this, they will always break in these circumstances. *The one casualty/figure requirement remains as for recoil.* Broken troops receive blows without replying as they turn their backs.

If neither side breaks, the melee normally continues next period. However, troops *may instead receive a reaction instruction* *to break off and rally back.* They will receive blows on their shieldless backs as they turn, as if broken, and will be unable to reply to these unless elephant or chariot crew able to fight to the rear. The body will be broken if, and only if, they fail to outdistance pursuit that period. For success, therefore, either the opponents orders, reaction or situation must prevent them pursuing, or else their pursuit move must be less than the retiring units rally move. The obligation to pursue is the same as that to pursue a broken enemy.

Artillery follow up or pursue a retiring or routed enemy only with missiles. A body of artillery which is broken is destroyed by the first period of pursuit, while a recoil loses all engines within that distance. In all but campaign games, engines and their transport are destroyed rather than captured.

A recoiling body counts as retiring both in reaction tests at the end of the period of combat that made the recoil necessary and throughout the period in which the figures are moved.

ROUT AND PURSUIT

BROKEN TROOPS

These will rout with their backs to the enemy until able to rally. During the first period of rout they move directly away from the enemy threatening them, or if partially surrounded, straight through the gap. During subsequent periods, they must head for their sides original table edge by the quickest route, which may not be the shortest, or, if pursuers are still in contact, for terrain within reach that period which will reduce the pursuers next moves below that of the fugitives. If no such routes are available, because of interposing enemy or impassable obstacles, they instead head for the nearest accessible table edge.

Routers meeting friendly *LI or LC disordered friends, & routing LI, elephants & 4 horse chariots meeting any friendly troop, always attempt to interpenetrate them. Otherwise routers* will only attempt to interpenetrate if there is no gap at least 20 paces wide within 50 paces. Irregulars who are interpenetrated by routers in this way will be swept away in rout themselves, except that irregular light infantry will only sweep away their own kind. When routing elephants interpenetrate friends, they cause casualties as if the elephant, but not the crew, were fighting them hand-to-hand.

Routing troops may attempt to break through enemy light cavalry or light infantry who bar their way. In this case the troops barring the way must test reaction for being charged, but the routers do not. If the barring troops evade, this must be angled to try and clear the path of the approaching rout. If they do not, a combat will take place. If the results are such that in a normal combat the barring troops would recoil or break, the routers break through them and continue on their way, the barring troops halting disordered or pursuing according to their orders and reaction. If the results are otherwise, the routers must turn to avoid the barring troops.

If a body, at the time it breaks or later, is completely surrounded by enemy it cannot break through or other such impassable obstacles or its move is reduced to zero, it is assumed to form a milling mass incapable of using weapons or shields though facing their attackers. Any enemy in contact can then either accept their surrender and make them prisoner, or continue to cut them down. Prisoners once made are immediately removed from the table by the captor and cannot be rescued. No guards need be provided.

Routers may only fight when attempting to break through barring troops, and do not shoot in any circumstances.

Broken troops attempting to rally need a reaction test result better than "If in rout, continue." to do so.

PURSUERS

These follow the routed, striking at them without reply as long as they are still in contact. If they contact fresh enemy during their pursuit, they may strike at these as well.

If the routed pass through or round such fresh enemy, the pursuers actions must depend on their orders and reaction results. They are not forced to charge into the fresh enemy unless still subject to uncontrolled advance.

Compulsory pursuits last only for one period unless still subject to uncontrolled advance. However, pursuers have the option of continuing them for as long as they can remain in contact, rallying after any complete period of pursuit.

Troops with attack orders, all of whose opponents rout or break off, must always pursue unless prevented by reaction or by a different conditional order. Troops subject to uncontrolled or unauthorised advance always pursue.

TROOPS LEAVING THE TABLE

When one or more figures of any body leave the table, the whole body is assumed to have left it. With the exception of routers who left the table without rallying, any such bodies can return to the table if at the start of any of the next three periods an "average" die for a regular body, or an ordinary die for an irregular body, scores 3,4 or 5 if a general is with the body, or 3 or 4 if no general is with it. Troops scoring 4 or 5 arrive instantly, and can make a full on-table move that period. Those scoring 3 arrive when all other moving has been completed, and do not move on-table until next period. Enemy blocking access to the table edge must recoil out of the way.

Troops arriving back on a score of 4 or 5 at the first attempt must rally forward or back depending on the circumstances in which they left. Others are assumed to have rallied off-table.

Troops who were chased off the table cannot dice to return until one period after the pursuers have returned, so may lose their chance to do so.

WINNERS AND LOSERS

If neither side has conceded when the time has come to end the game, finish the current period, and take any end of period reaction tests.

Count up each sides remaining points.

Do not count troops who have been removed as casualties, are currently in rout, or who have routed off the table without rallying, or field defences or other fortifications which have been penetrated by the enemy and not completely recovered.

Count one quarter the value of those of your troops in enemy hands as prisoners, including all those of your troops that were still on the table at the time if you conceded. Note that once prisoners surrender has been accepted, they cannot be massacred. Count half the value of any other troops that are off the table through retirements, flank marches, straggling following a forced march, evades, pursuits or rallied routs, or which currently have reaction instructions to retire, even if these would not take them off. Count the full points for all other troops on the table, except for forced marching points, which are disregarded.

Add any objective points that have been previously agreed for the control of specific terrain features. A feature is defined as under control if a friendly force is occupying it or blocking direct enemy access to it, and if no enemy is able to charge that force next period. If an enemy is able to charge next period, the blocking or occupying force may claim half the points, the other side none. Any such enemy force must be in sufficient strength to have a chance of breaking or pushing back the occupying body next period.

If one side now has 10% of its original points more than its opponent, it has won. If not, the result is a draw. National Convention games now often distinguish between a winning and a losing draw.

An alternative method to provide continuity of interest for a small group of players is for each to add his remaining points after a game to his opponents losses, then to carry them forward as a running total. This will give an incentive for cunning retreats or tactful surrenders after an unlucky encounter, and ensures that the player who fights successful fierce battles is not at a disadvantage compared with those who specialise in indecisive skirmishing.

GENERAL

We have decided that sieges would be better covered by a separate set of rules as breaching and mining operations take far too long to be fitted into the one day battle that these rules are primarily designed to simulate.

Similarly, construction of field defences while a battle is proceeding is too unlikely a possibility to be worth covering, and it is better to assume that any such have been constructed in advance.

However, once a breach has been made, or if an escalade is to be attempted, the assault itself does come within the sphere of these rules, together with minor preparation such as pushing up siege towers, filling ditches, and clearing palisades.

Provision for these will therefore be found below.

FILLING DITCHES

An infantryman can carry a fascine at normal speed and is not delayed by throwing it into a ditch. He can use his shield while doing so.

Each fascine reduces the ditches effective width by $2\frac{1}{2}$ paces. This sounds very generous, but is right when you remember that the model fascine represents 20, and that these can be concentrated on a narrow frontage. Rams, penthouses and towers cannot cross an unfilled ditch.

RAMS

A ram can be carried by 4 to 6 infantry figures, who count unshielded, at normal speed.

Once in position, it requires two periods to break down a door. If its crew falls below 4 figures, the attempt fails and cannot be resumed.

PENTHOUSES

A ram can be protected by a penthouse constructed of stout timbers and green hides. 6 infantry figures are needed to move this, and these count unshielded while doing so. The ram crew inside the penthouse are vulnerable only to stone throwing engines.

TOWERS

A tower constructed similarly to a penthouse needs 8 infantry figures to move it, plus a further 1 for each figure carried by it. The pushers count unshielded. A horse or yoke of oxen can replace two men, but the tower will then be unable to move right up to enemy walls and will be limited to giving missile support.

Other towers may have a drawbridge at wall level. Dropping this causes no delay, and 2 figures may charge across it to fight on equal terms with the defenders, being reinforced by up to 2 further figures per $\frac{1}{4}$ period if the enemy gives ground to make room.

Reinforcing figures need not start in the tower.

Other troops carried in the tower can be artillery part way up and troops shooting with javelins, bows or crossbows on the top story. Troops on the top story or charging across the drawbridge count as in partial cover. Others inside are vulnerable only to stone throwing engines.

BATTERY BY ARTILLERY

A penthouse or tower is considered to be destroyed with all its occupants by stone throwing artillery when this has caused 20 casualties to the interior crew, who due to the confined space always count as close order infantry.

A 60 pace section of palisade is destroyed by stone throwing artillery when this would have inflicted 20 casualties on occupying close order infantry.

AXEMEN

2 infantry figures with axes can simultaneously chop at a door, taking 5 figure/periods to clear a way through. This means that 1 figure will take 5 periods, 2 figures will take 3 periods.

3 infantry figures with axes can chop at a 60 pace section of palisade, taking 10 figure/periods to clear a way through.

BREACHING WITH ELEPHANTS

An elephant model which is not disordered needs 2 model/periods to knock down a door or a 60 pace section of palisade. If it afterwards goes through an archway while wearing a howdah, dice. A score of 1, 2, or 3 indicates that it has stuck, blocking the entrance. Dice again at the start of each period until it frees itself.

ESCALADES

2 infantry figures can carry a scaling ladder sufficient to reach the top of a stone curtain wall, but not that of a tower, at normal speed, counting unshielded.

They require ¼ period to erect it, and it occupies the same frontage as a light infantry figure.

A single defending figure reaching the top of a scaling ladder before the first escalader reaches the top may dice to throw it down, using an ordinary die, and requiring a score of 5 or 6. Figures on a cast down ladder lose 5 casualties each.

Figures on a scaling ladder count unshielded. If the defenders succeed in making the escaladers recoil, they can attempt to cast down the ladders. If the defenders are forced to recoil, the escaladers can bring one extra figure up and off each ladder for each quarter period, if there is room to do so.

BODIES OF TROOPS

In an assault, any body of troops engaged in a single task counts as a unit. Such a body may be defending a specific length of wall or tower or stationed as a reserve for counterattack, or be bringing forward a ram, penthouse or tower, or crewing such, or covering an assault on a particular area by shooting, or escalading such an area. However, when judging relative strengths for reaction, count the number of visible figures, not units, i.e. more friendly than enemy figures within 150 paces.

FIRE

Fire missiles can be shot by infantry archers, staff slingers and artillery, that are either within fortifications or have been provided with transport to carry materials for preparing such missiles. A pack animal can serve 5 figures, a wagon 20. This allows for several shoots by all those involved.

The period before fire missiles are initially used must be spent preparing them, with no other activity.

The weapon factor is 1 against buildings or woods, 0 against doors, palisades, penthouses or towers. Normal ranges are halved for bows and bolt-shooting engines.

20 casualty equivalents are enough to start a fire. They can be spread over a number of consecutive periods shooting. However, an intervening period with no fire missiles arriving cancels half the fire points previously accumulated, and two such periods cancel them all.

A late Byzantine hand flame-thrower can be used only once, and has a range of only 20 paces, but sets fire automatically to a building or wood, and to palisades, doors, penthouses or towers on a dice score of 4, 5 or 6. It counts as 5 engine crew against animals and personnel in the open.

A Chinese rocket launcher has a weapons factor of 5 against buildings, 4 against woods, 3 against doors, palisades, penthouses or towers, and the same as other artillery against personnel or animals.

Any troops can set fire to a building, wood, penthouse or tower they are within, provided they can spend two periods doing so with no other activity.

Any troops who have not evacuated a burning building, wood or construction three periods later are destroyed.

A player wishing to use fire weapons must provide himself with a supply of cotton wool tinted red, orange and brown to symbolise fires.

Only flame throwers and troops inside buildings and constructions can start fires if rain or snow has already fallen. All fires are extinguished by rain or snow falling after they have started. Otherwise, they are burned out and the area can be entered again, 5 periods after they started.

In strong winds, fires can leap from a wood or building during the 3rd period of burning to another 30 paces downwind. If conditions are suitable for grass fires, these too spread 30 paces per period downwind.

CALTROPS

A Roman or Byzantine infantry unit can carry enough caltrops to cover a frontage of 5 paces per figure. It requires a complete period to lay them. When laid, they are represented by a strip of card 10 paces wide, painted in terrain colour, but with a sprinkling of small steel stars marked on it. Caltrops can be picked up by the unit that laid them or swept aside and dumped by another friendly or enemy body. In either case, this takes two whole periods with no other activity, and the body so occupied counts as moving over difficult terrain and so may be disordered.

Troops of either side passing over caltrops other than in clearing them, count them the same as missile hits. The weapon factor is 0 for infantry, 1 for cavalry making a normal or rally move, 2 for all others. There are no tactical factors, but a full random factor counting the full difference between the two dice scores applies. Use the number of figures passing over them for the other parameter.

MISCELLANEOUS INFORMATION

Previous editions of these rules have included appendices on forming and painting an ancient wargames army, rule adaptations for 15mm figures, and sword and sorcery. The first of these subjects is now covered in far more detail in Phil Bakers book in the Airfix Magazine guide series "Ancient Wargaming", which is designed as a companion to these rules, and our own series of books on ancient armies. For details of any of these, plus our rules, books and games for other historical periods, write to: Wargames Research Group, 75 Ardingly Drive, Goring-by-Sea, Sussex, enclosing a stamped addressed envelope or international reply coupon.

15mm figures are now provided for in the main body of the rules.

This leaves sword and sorcery, which is not now included. This is because we now consider it more appropriate to a set of rules in which one figure represents a single man, now under development, and our magic rules will reappear in this in due course.

We also hope to produce a set of rules covering the longer term aspects of sieges.

It only remains now to tell you about various organisations and journals of interest to ancient wargamers, and give you the addresses of figure manufacturers

MAGAZINES

Airfix Magazine

Battle monthly

Military Modelling

All the above have articles on modelling, military history and full reviews of the latest in figures, models and books.

They are available on general sale in model shops and general bookshops.

Sword & Lance

38, Coniscliffe Road, Darlington, Co. Durham bi-monthly

Wargamers Newsletter

188 Piccadilly, London W1V 9DA monthly

These are of more restricted circulation but are both well worth reading. Wargamers Newsletter is the longer running and the first on the subject, while Sword & Lance now in its second year, is well established and gaining in popularity.

SUPPLIERS OF METAL FIGURES

Scale

Greenwood & Ball,
61 Westbury Street,
Thornaby on Tees,
Teeside

25mm.

Heroics Figures
22 Mowbray Court,
Mowbray Road,
London SE19 2RL

1/300 scale
micro figures

Hinchliffe Models Ltd.,
Meltham,
Huddersfield HD7 3NY

25mm & 12mm

Peter Laing,
'Minden',
Sutton St. Nicholas,
Hereford HR1 3BD

15mm

Lamming Miniatures
45 Wenlock Street,
Hull HU3 1DA

25mm

Miniature Figurines
28/32 Northam Road,
Southampton SO2 0PA

25mm & 15mm

Skytrex Ltd.,
28 Church Street,
Wymeswold,
Leicestershire

carry stocks of most of the
firms listed here, also
reference books and games

Tradition
188 Piccadilly,
London W1V 9DA

25mm

Warrior
23 Grove Road,
Leighton Buzzard,
Beds LU7 8SF

25mm

Most of these ranges can be seen in model shops, but if not an SAE will bring some details.
Miniature Figurines & Hinchliffe ranges of figures are particularly vast, and their catalogues
are therefore correspondingly large.

OVERSEAS

We will quote two principal firms in U.S.A. who stock Hinchliffe & Miniature Figurines ranges:-

Heritage Models Inc.,
2916 Blystone Lane,
Dallas,
Texas 75220.

Also have sole rights to print
and distribute our products
in U.S.A.

Miniature Figurines Ltd. Inc.,
Box P.,
Pine Plains,
N.Y. 12567

In Australia:-

Miniature Figurines (Australasia)
59 Willoughby Road,
Crows Nest 2065

We have mentioned those manufacturers who have large Ancient ranges. There are many others, producing smaller ranges or specialized figures, and most advertise in the magazines mentioned.

THE SOCIETY OF ANCIENTS

This is a must for all ancient players and students of Ancient and Medieval warfare. It produces a bi-monthly magazine, Slingshot, which has regular articles by knowledgeable writers on armies and weapons, as well as battle reports, reviews and articles on conversion and painting of figures. The Society also holds regional meetings at various centres, and runs an annual wargames championship on a league basis in which all members can automatically take part.

Write to the Treasurer:- Malcolm Woolgar,
44 Shaftesbury Avenue,
Worthing, Sussex
for an application form with details.

We must mention the inexpensive 20-25mm plastic figures produced by AIRFIX. They have Romans, Ancient Britons and a vast range of other figures that can be converted with time and patience to many types of Ancient warriors.

amended Nov 1976

WHEN IN DOUBT, OR FOR FULLER DEFINITIONS, REFER TO THE MAIN RULES

TEST REACTION AT:	ATTACK ORDERS	HOLD ORDERS	SKIRMISH ORDERS	A Irr. Reg.	B	C	D Reg. Irr.
First shot at or in charge reach	Forget orders. Two periods unauthorised or uncontrolled advance.	Forget orders. Two periods unauthorised or uncontrolled advance.	Forget orders. Two periods unauthorised or uncontrolled advance.	12 20	15	16	18 14
Start of charge unless uncontrolled							
Self or supported being charged							
2 casualties per figure from shooting	Obey Orders	Obey orders, except that countercharge is optional, pursuit is compulsory.	Obey orders, except that mounted may countercharge, foot may hold obstacle or difficult terrain.	11 19 to to 8 8	14 to 10	15 to 12	17 13 to 15
Falling below ½ strength							
Surprise sighting within 100							
First seeing rout within 150							
General disabled within 250	Obey orders, except that potentially disordered troops may instead temporarily hold or skirmish.	Obey Orders	Obey Orders	7 to 4	9 to 4	11 to 6	14 12 to to 8 10
Not wishing to pursue							
Attempting to rally from rout							
THROW 3 DICE	Halt for two periods in present position, except counter charge optional, follow up and pursuit compulsory.	Halt for two periods in present position.	Evade if charged, break off if in melee, otherwise skirmish in present position for two periods.	3 to 0	3 to 2	5 to 3	7 9 to to 4 6
+ 1							
More friend than enemy units within 150.							
Self or friends within 150 advancing.	Halt to hold present position if charged ^{break off} in melee, but do not follow, up or pursue, if in rout continue, otherwise retire for two periods.		Evade if charged, break off in melee, if in rout continue otherwise retire two periods.	- 1 to - 4	1 to - 4	2 to - 2	3 5 to 0
Any enemy retiring or exposing flank within 150.							
+ 2							
Friend units within 150 are twice enemy.	If in route continue, otherwise halt in disorder rest of this period and all next. Do not evade, follow up or pursue.			- 5	- 5	- 3	- 1 4 to 3
Self or friends within 150 charging, pursuing, unauthorised or uncontrolled.							
Each enemy unit in rout within 150.							
	If in rout continue, break if charged, in melee, or with two shooting casualties per figure in charge, otherwise retire two periods, irregulars disordered. ^{Bank} if elephants, D class at below ½ strength.			- 6	- 6	- 4	- 2 2
							</

OTHER CAUSES OF DISORDER

Evading, routing, rallying, waking or meeting fresh enemy during pursuit.

Caught changing formation or facing wrong way.

Forced to recoil by charging cavalry.

LMI or heavier infantry caught moving by mounted charge.

Troops, other than LI, LMI or LHI, moving over difficult terrain.

Second period of moving or earlier formation or direction changing, or recoil, while subject to uncontrolled advance.

Interpenetrated or recoiling against unyielding friends or over rough terrain.

Non-Indian horses within 30 paces of elephants if familiar or 100 if not, non Arab horses within 30 paces of camels, or any troops in melee with elephants or chariots who did not recoil.

WEAPON RANGES

Light hand-hurled	40
Mounted bows	180
Infantry Bows	240
Slings	120
Staff Slings	240
Mounted Crossbows	240
Infantry Crossbows	300
Artillery	480

Normal sequence before play.

Pick armies to given total value

Choose terrain

Test for outscouting

Deploy troops visible to enemy

Write orders

Deploy remaining troops

MOVE DISTANCES

	Normal	Charge
SHC. <i>EH Cm</i>	80	120
EHC, HC, MC.	120	180
LC.	160	240
SHI	40	60
HI, MI.	60	80
LHI, LMI, LI.	80	100
HCh.	80	120
LCh.	120	180
Elephants	80	100
EHCh. HCm. MCm.	120	120
Man-handled Lt. Bolt-shooter	60	
Lt. Bolt-shooter on mule cart.	120	
Ox-drawn engines, towers, penthouses.	40	
Wagons, dummy elephants	40	
Boats: with stream	120	
Directly across or angled up.	60	

NORMAL SEQUENCE OF EACH PERIOD

Dice for arrivals and returns
Compulsory moves
Charge declarations and reaction tests
Charge response reaction tests
Charge, countercharge and evade moves
Normal moves
Shooting
Reaction tests caused by shooting
Melee
Decide melee breaks and recoils
End of period reaction tests

WEAPON FACTORS

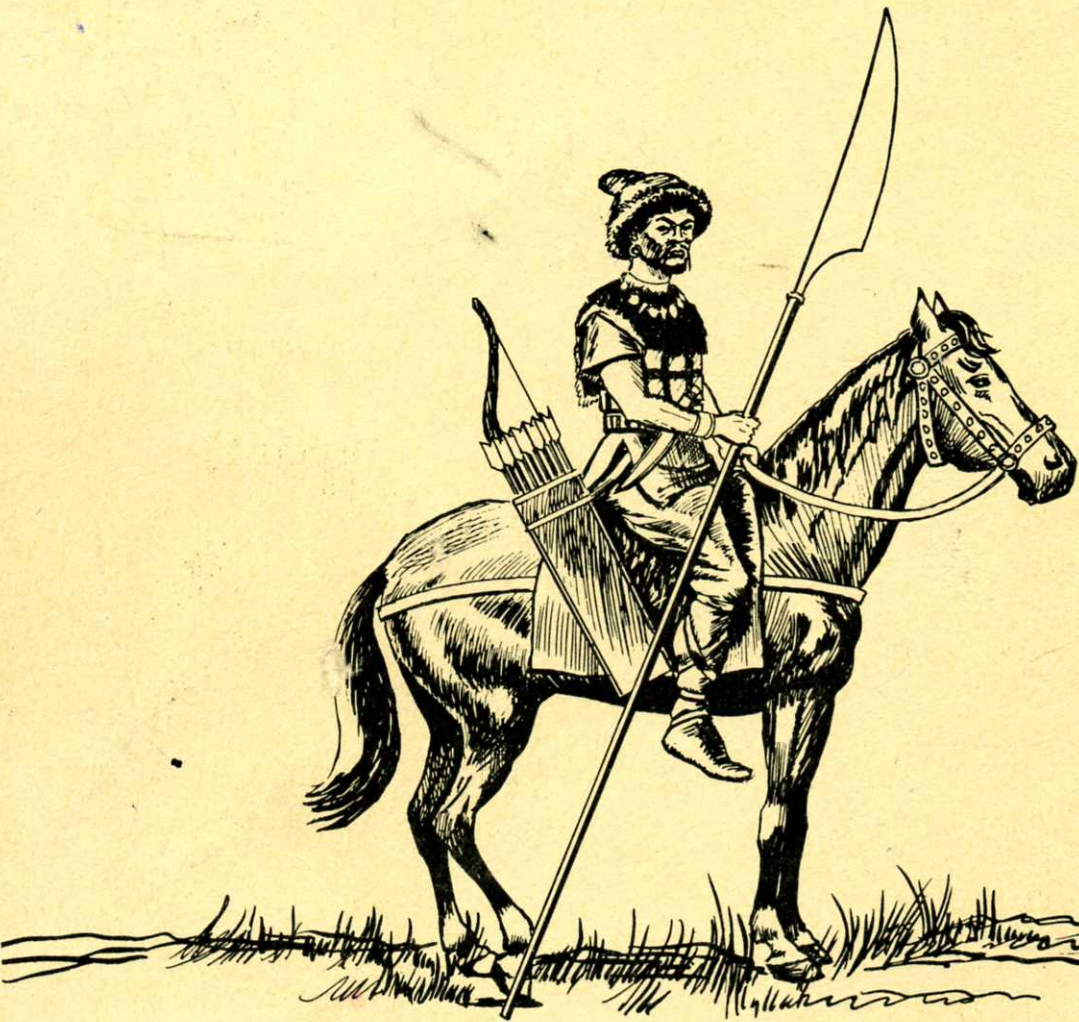
CIRCUMSTANCES AND PRIMARY WEAPONS		Max. Reg. Ranks Fighting	SHC	EHC	HC	MC	LC	SHI	HI	MI	LI	HCh	LCh	El.
Distant	Light hand-hurled weapons, slings and bows.	?	0	1	2	4	3	0	1	2	2	2	1	1
	Crossbows and staff slings.	?	2	2	2	2	1	1	1	1	0	2	0	1
	Artillery.	?	2	2	2	2	1	2	2	2	1	2	0	2
Cav. or Cam. Hand-to-hand	Kontos or couched lance in 1st period of each melee.	1	2	3	4	5	5	4	4	4	5	0	0	0
	Lighter spears, javelins or darts in 1st, 2nd or 3rd period.	1	0	2	2	4	3	2	3	4	5	1	2	1
	Other weapons or circumstances.	1	0	1	1	2	2	1	2	3	5	0	0	0
Infantry or Artillery Hand-to-hand	Pikes, if not yet recoiled in current melee.	1 ^{3/2}	3	4	5	5	2	1	2	3	2	3	4	1
	Long thrusting spear, if not yet recoiled.	1 ^{1/2}	1	2	4	4	3	1	2	3	3	2	3	0
	Heavy throwing weapon in 1st period or against elephants.	1 ^{1/2}	2	2	2	2	2	2	4	5	3	2	2	2
	Lighter spears, javelins or darts in 1st period or against elephants or chariots.	1 ^{1/2}	0	1	2	4	3	1	3	4	4	2	3	2
	Any of above in other circumstances, except pikes.	1	2	2	2	3	3	1	2	3	3	1	1	0
	Two-handed cutting weapons.	1	5	5	5	5	4	4	5	5	3	1	1	1
	Pikes after recoil, bow, sling, crossbow, staff sling, arty.	1	0	0	0	1	1	0	1	2	2	0	0	1
Chariots and elephants Hand-to-hand	Chariot and driver.	1	4	2	2	3	2	4	3	4	2	2	3	0
	Elephant and driver.	1	5	3	3	4	1	3	3	3	2	5	1	2
	Add 2 for each crew figure, except drivers and Burmese, using hand-hurled weapons against any but super or extra. Add 1 for each other armed crew figure and charging, following-up or pursuing chariot horse.													

TACTICAL FACTORS

Mounted troops fighting to cross defended obstacle.	-2	Charging, pursuing or following up.	+1
Infantry fighting to cross defended obstacle:		A, B or C class in uncontrolled advance.	
Not pikes, faced by pike or long spear.		Fighting from upslope of melee opponents.	
Each casualty per figure from shooting this period.		Opponents are shieldless EHC,HC,MC,LC,HI,LHI,LI,EHCm,HCm,MCm	
Bows or crossbows shooting at over half range.		Crossbows shooting at shieldless SHC or SHI.	
Shooting overhead.	-1	Opponents are shieldless MI or LMI.	+2
Shooting over more than one friendly rank on same level.		Fighting against the flanks or rear of SHC or elephants or the rear of SHI.	
Shooters target moved 60 paces or into contact.			
Shooters target is cavalry or chariots in charge, pursuit or rout.			
Shooters target is behind trees or in partial cover.		Pursuers still in contact at end of period.	

FIGURES

Factor	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
-5	0	0	0	0	0	1	1	1	1	1	1	2	2	2	2	2	2	3	3	3
-4	0	0	0	0	1	1	1	1	2	2	2	2	2	2	3	3	3	3	4	4
-3	0	0	1	1	1	2	2	2	3	3	3	4	4	4	5	5	5	5	6	6
-2	0	1	2	2	2	3	3	3	4	4	4	5	5	6	6	6	7	7	8	8
-1	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10
0	1	1	2	3	3	4	4	5	6	6	7	7	8	9	9	10	10	11	12	12
1	1	2	2	3	4	5	6	6	7	8	9	10	10	11	12	13	14	14	15	16
2	1	3	4	5	6	8	9	10	11	13	14	16	17	18	19	21	22	23	24	26
3	2	3	5	6	8	9	11	13	14	16	18	19	21	22	24	25	27	29	30	32
4	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
5	3	5	8	10	13	15	18	20	23	25	28	30	33	35	38	40	43	45	48	50
6	3	6	9	13	16	19	22	25	28	32	35	38	41	45	48	51	54	57	60	64
7	4	8	12	16	20	24	28	32	36	40	44	48	52	56	60	64	68	72	76	80
8	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
9	6	13	19	25	32	38	44	50	57	63	69	76	82	88	95	101	108	114	120	126
10	8	16	24	32	40	48	56	64	72	80	88	96	104	112	120	128	136	144	152	160
11	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200
12	13	25	38	50	63	76	88	101	114	126	139	151	164	176	189	207	214	227	240	252



GORDON E. DAVIS