

WAR GAMES RULES



1000 B. C.
TO
1000 A. D.



3rd Edition
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WAR GAMES
RESEARCH GROUP

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INTRODUCTION TO THE 3RD EDITION

Since the first edition of these rules was printed, they have been chosen for the Ancient games in the 1969, 1970 and 1971 National Wargames Championships, and have now been officially adopted by the Society of Ancients, the specialist society for Ancient and Medieval wargamers. Many aspects of the rules, and in particular those dealing with Orders and Reaction, have been successfully applied to experiments with rules for other periods.

We have taken advantage of the production of this new edition to incorporate substantial modifications designed to increase realism, much extra explanation shown to be advisable by three years of intensive playing experience, plus a mass of new material covering attacks on fortifications, ship to shore fighting, stratagems, and setting up more varied situations for battles. We hope that you will find this good value for your money.

We have made the utmost possible use of original sources including contemporary military works. As more of these have become available, some by making our own translations from their original language, we have had to alter some of our original conceptions. The most important changes now introduced as a result of this extra research are a different ground scale, and sub-division of the light infantry and super heavy cavalry troop types. These will unfortunately cause the old hand to have to alter some of his figure bases. We are sorry for the inconvenience this will cause, but are confident that the better game resulting will prove an adequate compensation.

As for the beginner, do not be overawed by the size of this rule book, and the apparent complexity of the rules. Read them through at first as if they were a book, and don't forget that the basics are incorporated in the quick reference sheets. Above all, keep to a few basic types of troops for your first few games, and get to know how to use them in the best combination. Once you have the feel of the rules, you will be able to bring in more varied types, and also try out small sieges, fighting from ships, and other features.

We recommend our new series of illustrated booklets on ancient armies for background information. For information on these, and rules for other periods also produced by the Group, write to:—
B. O'Brien, 75, Ardingly Drive, Goring by Sea, Sussex.

SCALES

GROUND SCALE

This can be expressed as one inch equals ten paces, a pace being taken as two and a half feet or three quarters of a metre, or as one millimeter equals one foot.

All distances in the text are quoted in paces.

To measure such distances on your wargames table, simply disregard the terminal 0 and measure in inches.

FIGURE SCALE

Each figure represents 20 men, the number who would theoretically occupy the area covered by its base at the ground scale.

The formation is assumed to be 5 files wide by 4 ranks deep.

An elephant, chariot, war engine or wagon model represents 8 in a single rank or line.

TIME SCALE

Each period of play contains action comparable with 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.

For campaign purposes, we recommend that you treat one period of play on the table as equivalent to one hour in real life.

It then follows that a game should normally be assumed to be ended by the fall of night after 12 periods of play.

SETTING UP THE BASIC GAME

TYPES OF FIGURE

Elephants, chariots, wagons, and engines and their crews, are treated in most respects as a single figure.

Troops will be assumed to be armed with the weapons depicted on the figure representing them, with two exceptions.

1. Officer, standard bearer and musician figures will be assumed to represent the majority type of rank and file in their unit, as they in theory 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 are assumed to have throwing weapons as well. These will be the normal weapons for their type, i.e. Legionaries will have pila, Britons light javelins.

Troops are classified in two ways, the first of which affects their reaction to circumstances. This divides them into five classes.

- A. Guard and household troops of the highest calibre.
- B. Elite regulars, personal followings of barbarian war leaders.
- C. The great bulk of trained troops other than those above, including most auxiliaries and mercenaries, but not "native" levies.
- D. Levies, barbarians, etc., of known fighting value, but not highly organised or disciplined.
- E. Unenthusiastic or disaffected troops, including forced levies from subject races, and conscripted peasants of doubtful fighting value.

They are also classified by their standard of protection and normal mode of fighting, whether in close or loose order.

- | | | |
|------|------------------------|--|
| LC. | Light cavalry | Light troops fight in loose formation as skirmishers. |
| LI. | Light infantry | They will often have a light shield, and may have a leather jerkin. |
| LMI. | Light-Medium Infantry. | These fight in a closer formation than lights but a looser one than mediums. They are usually armed with javelins and carry a shield, combining light infantry mobility with medium infantry vulnerability and fighting characteristics. Celtic infantry, Hypaspists and the later Peltasts come into this category. |
| MC. | Medium Cavalry | Medium troops fight shoulder to shoulder. They usually have a large shield and |
| MI. | Medium Infantry | often have hardened leather armour |
| HC. | Heavy Cavalry | These differ from mediums in having iron or bronze armour covering the |
| HI. | Heavy Infantry | torso. Horses are usually unprotected. If some of them have horn or leather armour for their front half only, then some of the riders may have horn armour or hardened leather scale armour. |

EHC. Extra Heavy Cavalry These are men in mail, or iron or bronze scale armour, down to their elbows and thighs, mounted on horses with iron or bronze armour for their front half only, or with horn or leather armour all round. If some horses have metal armour all round, others may have horn armour to the front only, or may have riders armoured in horn. Their vulnerability under frontal missile attack or in an initial period of frontal hand-to-hand combat is equivalent to SHC, but in other circumstances to HC.

SHC. Super Heavy Cavalry These are men in full iron armour completely covering body, limbs and all extremities, and mounted on horses with iron or bronze scale armour all round. They do not need shields.

Camel riders are treated as Cavalry of equivalent type in most respects except movement. The standard of protection of chariot and elephant crews and their animals is not relevant under these rules.

A further distinction is also drawn between regular or drilled troops in formed units under officers, and probably wearing uniforms, and improvised units or barbarians fighting under tribal leaders. Elephants and chariots, being somewhat erratic, are always classed with the barbarians. Berserkers and Moslem arabs are classed as barbarian fanatics.

You should not assume that barbarians are necessarily inferior; in many circumstances they will be found to be more effective than regulars.

BASE SIZES

Figures must be fixed on bases of specific sizes. Frontages must be rigidly kept to, plus or minus 1mm, depths are strong recommendations only.

	Frontage	Depth
Light Infantry	30mm.	30mm.
Light-Medium Infantry	20mm.	30mm.
Medium and Heavy Infantry	10 to 15mm.	20mm.
Light Cavalry	30mm.	40mm.
Medium, Heavy and Extra Heavy Cavalry	20mm.	40mm.
Super Heavy Cavalry	15 to 20mm.	40mm.
Bolt-Throwing Engines, Chariots, Elephants and Wagons	40mm.	As required
Extra for each Chariot horse over 2.	10mm.	
Wheeled Penthouses	60mm.	As required
Stone-Throwing Engines and Wheeled Siege Towers.	80mm.	As required

In case you do not already use bases, they can be cut from beer mats, which do not warp, from thick card, or from sheet lead, which increases the stability of plastic figures.

All figures except possibly light cavalry should be mounted in convenient multiples, but leaving sufficient single figures to facilitate removing casualties. 60mm. is probably the ideal frontage for a multiple figure base.

UNIT ORGANISATION

The figures must be organised into units, which may be further divided into sub-units.

Each unit must contain at least 5 figures, including an officer and a standard bearer figure.

The maximum permitted size for a unit that is not divided into sub-units is 50 figures, representing 1,000 men.

A unit which includes at least one sub-unit must include a musician figure as well as a standard bearer and officer, and can have up to 60 figures, representing 1,200 men.

SUB-UNITS

A sub-unit must contain at least 5 figures including an officer figure. It must not have a standard bearer or musician.

The maximum number of figures permitted is 15, representing 300 men. However, except in an Indian unit, the largest sub-unit must be no larger than the element of the unit that contains the three command figures.

A sub-unit must not be given specific orders of its own, but must assist its parent unit to carry out its orders, moving in any suitable manner, and using any suitable method that does not conflict with the spirit of the orders given to the unit.

It must not move more than a normal move from its parent unit, measured from the two nearest figures, or out of sight of it. If this does happen by accident, it must be corrected as soon as possible.

Roman, Byzantine, German, Spanish or Celtic light-medium, medium or heavy infantry units can have sub-units of light, or bow-armed heavy infantry.

Hellenistic light infantry units can have sub-units with differing weapon types.

An Indian unit can consist of elephant, chariot, cavalry and infantry sub-units, the command element being contained in the elephant sub-unit if present, otherwise the chariot sub-unit.

In all other cases, sub-units must be identical in composition to their units.

ELEPHANT, CHARIOT AND ENGINE ORGANISATION.

Elephants are organised into units of up to 8 models, representing 64 beasts, in a non-Indian army; up to 5 models, representing 40 beasts, in an Indian army.

Each elephant is treated as a sub-unit, no points being charged for this. The unit need not have a command elephant, but each individual must be within 60 paces of the next.

Chariot units are the same sizes as elephant units, except in a Celtic army, when they can be of up to 12 chariot models. Chariots do not count as sub-units and the command chariot of a unit need not carry a standard bearer.

Engines are not organised into units or subject to limitations placed on units, but may be given orders as a group.

GENERALS

Each army must have a Commander-in-Chief, represented 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 2.

Such a subordinate may only order troops under his own command and in accordance with general orders that he has received, modified by his own personality, which is established by a dice throw at the start of the game and before writing orders.

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 has only a minus reaction effect, a rash, only plus.

A General may personally command his own bodyguard, which may be of up to 15 "A" or "B" type figures or a "B" type standard sized chariot or elephant unit, in each case counting his own figure, elephant or chariot. If his bodyguard including himself is 5 figures or less, or one chariot or elephant, he can supersede the command of any unit of his force.

POINTS VALUES

As different troops cost more or less to equip and maintain than others, points values have been allocated to each classification.

These should be multiplied by the number of figures to give the points value of the army.

Where regular troops have a higher value than barbarians, it is because their drill and training costs money. Where the reverse is the case, it is because metal armour is much harder to come by for a barbarian who has no government arsenal supported by tax payers to back him up.

	If Regular	If Barbarian
Light, light-medium or medium infantryman	4	3
Heavy infantryman	6	9
Light or medium cavalryman	8	6
Heavy cavalryman	10	12
Extra heavy cavalryman	12	15
Extra for any of the above who are fanatics	Not allowed.	+1
Reduction for any ^{infantry} other above who do not have shields	-1	-1
Reduction for any cavalry above who do not have shields	-2	-2
Super heavy cavalryman	15	18
Each fighting crewman for a chariot or elephant	Not allowed.	5
Extra for arming any of the above with two classes of weapon, where permitted	+2	+1
Chariot with 2 horses or asses and driver	Not allowed.	10
Elephant with driver	Not allowed.	15
Extra for each horse added to a chariot, or used to mount infantry, or cost of a pack horse or mule	+3	+2
Extra for substituting a camel for a horse.	+5	+1
Extra for A class fighting figures	+2	Not allowed.
Extra for B class	+1	+1
Reduction for E class	Not allowed.	-1
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 sub-unit	+5	+10
Commander-in-Chief figure	100	100
Subordinate General figure	50	50
Light 3 span or 1 cubit bolt-throwing engine, including crew of 2 figures.	20	40
Heavy bolt-throwing engine or light 10 mina stone-throwing engine, including crew of 3 & team of 6 oxen	30	50
30 mina stone-throwing engine, including crew of 4 & team of 8 oxen	40	60
1 talent stone-throwing engine, including crew of 5 & team of 12 oxen	50	80
3 talent stone-throwing engine, including crew of 6 & team of 16 oxen.	60	100
Wagon with animals and driver	10	10
Mantlet	3	5
Scaling ladder	5	5
Ram	10	10
Wheeled penthouse	50	100
Wheeled tower	100	200
Pontoon, with bridge section	10	20
10 paces of caltrops	2	Not allowed.
10 paces of previously constructed palisade, ditch or bank	2	3
10 paces of stone curtain wall or 5 paces of tower	10	20

TROOPS ENTITLED TO TWO CLASSES OF WEAPONS

Early Imperial legionaries	Pila and javelins
Auxiliaries	Short thrusting spear and javelins
Late Roman infantry	Long thrusting spear and javelins or darts
Byzantine light cavalry	Kontos and darts
Indian infantry	Two-handed sword and bow or javelins
Thracian peltast	Rhomphaia and javelins
Assyrian and Achmaenid Persian infantry	Short thrusting spear and bow
Hellenistic peltast	Long thrusting spear and javelins
Celtic charioteer	Long thrusting spear and javelins
Elephant riders	Pike or bow and javelins
Huns	Bow and javelins
Eastern cavalry	Kontos or thrusting spear and bow
Eastern charioteers	Bow and javelins

If there are any other combinations you think should be allowed, send an S.A.E. and we will check them out.

All these weapons except those that are hand-hurled should be shown on the figure. Where combinations of hand-hurled weapons are specified, some figures at least should carry each, except where small darts are kept behind a large shield.

Because these combinations are permitted, it does not follow that all troops in the categories mentioned did not often carry these or other weapons singly.

Indian chariot & elephant drivers were sometimes armed. If so, they cost additional pts as fighting crewmen & can fight, but not shoot, against targets to their front only, counting the same for this purpose as archer crewmen.

TROOPS FORCED MARCHING OR TRANSPORTED BY WATER

Troops forced marching to arrive on the battlefield early cost more.

Mounted, light and light-medium troops cost 1 point per figure or model for each period early, medium infantry 2, heavy infantry 3, and wagons and engines 5.

Troops arriving by boat cost 1 point per figure extra if infantry, 3 if cavalry, 5 if camelry, engines or chariots, 10 if elephants.

CHOICE OF ARMY

The players choice of figures is completely free, provided the points total does not exceed the figure agreed with his opponent, and that the army does not include any troop types or organisation not found in its prototype.

Stone fortifications may 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.

We recommend 1,000 points for a 2 or 3 hour game, 1,250 or 1,500 for a full evening, 2,000 or more if several people are playing and if you don't mind continuing into the small hours.

CHOICE OF TERRAIN

This may be agreed between the players or may be decided as follows:

Each player nominates a number, from 1 to 6 of terrain units per square metre of table.

Add both nominations, add the score of one dice, divide by 3 and round off.

Dice to see which player is going to select terrain units from those available.

Units can be: A house, with or without 500mm of hedge or low wall.

A hill.

10 trees.

An area of marsh or soft sand less than 300mm square.

750mm of fordable or 250mm of unfordable river.

A bridge or ford.

The other player then lays these out, then the first decides the direction of play.

SCOUTS

Each side declares how many light cavalry figures it has.

A side with 10% less must declare its entire army and any forced marching intentions to the opposing player, who may then increase his own rate of march if he wishes, reducing his slowest troops to maintain a constant points value.

DEPLOYMENT

Each side makes a sketch map of its intended deployment, and then sets out according to this within 100 paces of the table edge. Troops may be kept off the table edge and instructed to arrive in a set number of periods.

They will then start to dice as if troops that have left the table, and so may arrive late or never.

Troops who have a time advantage over their opponents may then use it for extra movement and/or to throw up field works. They must not approach within 200 paces of their opponents table edge.

Troops up to half the value of a stone fortification may be present in garrison, regardless of how early the opponent arrives.

If woods extend to a players base line, he may deploy troops in them without putting them on the table. Their initial position and subsequent movements until they emerge or are found must be clearly marked on his sketch map.

ORDERS

A game commences with each player writing down the orders that each unit must follow until they are changed by fresh orders, or as a result of forced action following attack, or positive reaction from a test.

Sub-units are not given orders, as they must support their parent unit in carrying out the orders it has been given.

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.

Conditional orders, such as "If the enemy do this, do this" are usually unsatisfactory and should be used with caution.

Orders to "Use initiative" "Take appropriate action" or "Attack suitable targets" are no orders at all, and can only be obeyed by taking a "No current order" reaction test.

In competition games, or indeed, any where an umpire is employed, any ambiguity 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.

As examples, 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.

Order writing should be completed within 5 minutes. If it takes longer, the first player to finish may add 60 paces to each of his first period moves.

GENERAL FEATURES OF ORDERS

1. Units may vary their formation as desired without specific orders, and will move at between half and full normal speed.
Those within enemy charge reach may at any time halt and take up a defensive formation. They will still be subject to the latest order received and must attempt to carry it out if the charge threat is removed.
2. A unit cannot be told to move to a feature that it cannot see from its starting point, although it **can** be told to move in a direction that will eventually take it to the unseen feature. Unless a route is laid down in orders, a unit will proceed direct to its objective or in the direction ordered.
3. Cavalry and fanatic infantry may always attempt to countercharge if their reaction bettered "Halt".
4. Light or light-medium infantry, cavalry, camelry and chariots may be ordered to skirmish if armed with missile weapons. *The word "skirmish" MUST be written.*
They will close to within their own missile range and shoot, but may evade, subject to reaction, if the enemy would otherwise come into contact.
Skirmishing infantry will always evade unless their reaction result is "Act as general wishes" or "Uncontrolled advance".
Skirmishing mounted troops will always evade if their result is "Halt" or less, and may always choose to evade unless it is "Uncontrolled advance".
If evaders are successful in avoiding contact, they must return to shoot again as soon as they are reorganised.
The evade move need not necessarily be carried out by the whole unit, but may be confined to the troops threatened. However, if those evading are the majority, the remainder take a "Half strength" test to see if they conform.

5. An order to support another unit will be taken to mean "Assist in any way possible". This assistance can include skirmishing with its enemies. Sub-units automatically support their parent unit.
6. Missile troops do not need specific orders to shoot, but can always engage targets within reach nominated by the target priority rule.

CHANGE OF ORDERS

1. New orders can be issued at any time, but must be justified by events visible to the General figure or reported to him by messengers.
The orders must be passed to the unit concerned by messengers who travel at normal speed for their type, except that they can move at charge speed for one period during each trip, as can the general.
The messengers count as a patrol of 20 men for fighting purposes, and can form a bodyguard when not otherwise employed.
2. One complete period is required to dictate an order, listen to a report, or for a unit to digest a newly received order. This is not hindered by normal speed movement.
3. Simple pre-arranged visual or trumpet signals can be used. These can reach any formation with a figure within 250 paces of the General figure and affect **all** units that see them, unless they have been told in advance that the signal does not concern them.
Barbarian generals or troops can only make or understand 2 signals, regulars up to 5.
Only one signal can be made each period, and they cannot be used in combinations.
Troops receiving them obey next period.
Players must define both the type and meaning of the signal in advance and in writing, so as to be able to satisfy both opponent and umpire when they are used.
4. A general may join a unit and shout "Follow me". It will then follow him next period without spending any time digesting the order.
He must remain in its front rank until he has given it further orders and it has digested them.
He cannot do this if he controls a bodyguard of more than 5 figures including his own.
5. A subordinate general can only move and order troops under his control and in accordance with orders given him by the C in C.
6. When new orders are issued, they should be written down on the order sheet at once, but are not implemented until the messenger reaches his destination, this implementation to be shown on the order sheet by underlining the order.
When the order has been carried out and completed, or replaced by a new order, or the unit has routed or advanced out of control, it should be crossed out with a diagonal line. The unit can then wait for new orders to reach it, or take a "No current order" reaction test.
7. When a reaction test results in "Act as general wishes" a new order may be written down, underlined and acted on **immediately**.

STANDING ORDERS.

These may be provided in advance, stating the ways in which various types of troops will behave in varying circumstances, or expanding a general instruction given in the orders proper. For example, you might write the simple order "harass" and define this in standing orders as meaning "skirmish with heavy or medium troops facing in good order, but charge light, disorganised or outflanked troops & stray generals". These standing orders are equivalent to a regular army's manuals or a barbarian tribe's orally handed down traditional methods.

Such standing orders must be handed to the Umpire at the start of the game & he will decide how & when they will apply. Standing orders left at home are not acceptable as evidence!

LOSS OF ORDERS.

A unit which has made an uncontrolled advance or been broken is treated as having forgotten all orders, including standing orders. It will, however, remember the meanings of signals.

When the new orders arrive, or a 10 "without orders" reaction test is taken, standing orders ~~will~~ will once more apply.

THE REACTION TEST

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

1. The following compulsory tests may affect either an entire unit or a sub-unit.

- (i) When a unit, or a sub-unit which is separated by a gap of 10 paces or is in a rank of its own, receives 2 casualties per figure from missiles in a single period – **IMMEDIATELY THIS HAPPENS.**
- (ii) When animals are asked to go within 30 paces of a fire, or are within 60 paces downwind of a fire in a strong wind, or when elephants are attacked with fire.
- (iii) When a unit or sub-unit falls below half strength in figures – **IMMEDIATELY THIS HAPPENS.**

If the unit is engaged in hand-to-hand combat, it will ignore friendly troops more than 30 paces distance, but will count all other favourable or unfavourable factors.

A unit getting worse than "Halt" will continue off the field and will not return. If completely surrounded, it will surrender.

A sub-unit getting worse than "Halt" will retire to its main body in rout and rally behind them. If prevented, it will surrender.

The test is repeated each time the unit or sub-unit loses an additional figure.

The test also applies to the remainder of a unit or sub-unit when the majority are forced to rout, evade, or are cut off by the enemy.

If they get worse than "Halt", they will rout, evade or break respectively.

2. The following compulsory tests affect the main body of a unit and all those sub-units of it that are within sight and normal move distance of it, even if only part of the unit is aware of the reason for the test.

- (i) The first time the unit is shot at or comes within charge reach of enemy troops, or when subsequently sighting, or being shot at by, an enemy previously hidden by natural cover, at a range of 100 paces or less, unless previously explicitly warned of their presence.
- (ii) When troops who are neither fanatics or in uncontrolled advance attempt to charge – **BEFORE THE CHARGE STARTS.**
- (iii) When being charged – **WHEN AND IF THE CHARGERS EXCEED NORMAL MOVE DISTANCE.**
- (iv) When any friendly unit within 150 paces breaks, routs past, or bursts through.
- (v) When troops with orders to hold their present position have thrown back an attack, they must test to see if they pursue in spite of their orders. Results worse than "Halt two periods" are ignored.
- (vi) When a broken and routed unit is attempting to rally.
- (vii) When a fresh enemy force of at least 50 figures appears on the battlefield at least 5 periods after the start of the battle.
- (viii) On the death, capture or disablement of their general or C in C within 150 paces or as a result of a challenge to personal combat.
- (ix) When an army reaction test is called for because $\frac{1}{3}$ of the armies original units are off the table for some reason.

Each unit not already following a reaction instruction must test.

Units of subject levies or mercenary arabs will change sides if they get better than "Halt".

Mercenaries other than arabs will march home in good order if they get better than "Halt".

3. Tests similar to those under 2. can also be taken voluntarily at the players discretion at any time except:
 - (i) When the troops are engaged in hand-to-hand combat.
 - (ii) When they are in rout and not allowed to attempt to rally.
 - (iii) When they are engaged in a compulsory period of pursuit.
 - (iv) When rallying back or reorganising.
 - (v) When carrying out a positive reaction table instruction, some of which last for two or more periods.
4. Where not otherwise stated, all tests take place at the end of a period. When several tests are due simultaneously, their results are cumulative, i.e. if the first unit tested breaks, the second counts 'friendly unit in rout' and so on.
Such simultaneous tests should always be taken from right to left, so that the least reliable wing of an ancient army is worst affected.

Procedure

Throw three dice — use probability dice numbered 2, 3, 3, 4, 4, 5 for regular troops, normal or "wild" dice numbered 1, 2, 3, 4, 5, 6 for barbarians.
Add or deduct the factors in the following tables, which are cumulative.
Find the column in the appropriate reaction effect chart that corresponds to your troop class, then follow down it until you come to figures corresponding to your final reaction score.
Then read across to your reaction instructions.
When 1/3 of original figures are lost or separated, use only 2 dice, if ½, use only 1 dice.

Addition of ONE for the following:

Each friendly unit within 150 paces and in sight.
Any other friendly troops in sight.
Any friends advancing within 150 paces.
Any friends charging within 150 paces.
Support to rear.
Any enemy retiring within 150 paces.
Any enemy unit within 150 paces presenting flank or rear.
Uphill from any enemy within 150 paces.
Friendly cover within 100 paces.

Deduction of ONE for the following:

Each enemy unit within 150 paces and facing.
Any other enemy in sight.
Any enemy cavalry within 150 paces.
Any enemy advancing within 150 paces.
Being shot at by at least half own numbers.
Being shot at by engines and not having moved 40 paces during the period.
Any enemy partly behind flank and within its charge reach.
Any enemy partly in rear and in its charge reach.
Any enemy uphill within 150 paces.
Any friends retiring within 150 paces.
If disorganised.
Each 1/5 of original strength lost or separated.
Own unit retiring.
Own troops armed with bows or crossbows.
Own troops do not carry shields.
Charging or charged by, fanatics.

Addition of TWO for the following:

Fanatics within charge reach of an enemy but not yet in contact.
Each enemy unit routing within 150 paces.

Deduction of TWO for the following:

Each friendly unit routing within 150 paces.
Unfriendly cover within 100 paces.
Enemy elephants or chariots within 150 paces.
Animals within 100 paces of, or attacked with, fire.
Surprised by enemy emerging or shooting from cover within 100 paces.
Horsed troops disorganised by elephants or camels.
Sub-unit beyond sight or normal move of its main body.
At least 50 fresh enemy seen to arrive after 5 game periods.
General killed, wounded, captured or routed off field during game, within 250 paces or as a result of a challenge.
Testers are in rout, *or have been earlier in the game.*
Testers are "E" types in rout.
Army reaction test.

Addition or subtraction, according to players choice.

General with testing unit, providing that both are not routing together.	3
General within 150 paces of troops under his direct command or controlled through a subordinate general, provided he is not retiring or routing.	1
Troops behind cover, forming hollow square or behind field defences.	2
Each secure flank.	1

Definitions

Support to rear:	A friendly unit within normal move distance, immediately to the rear, and neither disorganised nor engaged in hand-to-hand combat.
Secure flank:	Friendly cover within 10 paces of the flank, or flank resting on impassable obstacle, or a friendly unit in contact with the flank, or within charge reach of it and not already engaged in hand-to-hand combat.
Friendly cover:	Known to be occupied by friendly troops, or known to be free of enemy troops.
Unfriendly cover:	Known to be occupied by enemy troops, or about which nothing is known.
Within:	<p>"Within" implies measurement from the nearest figure of a formation to the edge of an object or the nearest figure of another unit.</p> <p>Such objects or figures should also be in view of at least one figure, even if he must turn his head.</p> <p>On level ground, only the nearest rank of a force can be seen, except for elephants, which can be seen over their heads.</p> <p>Forces or objects on the far side of an impassable obstacle should only be counted if the necessary detour is less than the prescribed distance.</p>

Enemy unit facing: Testers are not entirely behind its flank.

REACTION EFFECT CHARTS:

1. Unit still subject to current order.

A	B	C	D	E
-2	-1	1	2	3
-1 TO +2	0 TO 2	2 TO 3	3 TO 4	4 TO 5
3	3 TO 4	4 TO 5	5 TO 6	6 TO 8
4 TO 13	5 TO 13	6 TO 13	7 TO 12	9 TO 12
14 TO 16	14 TO 15	14 TO 15	13	13
17 +	16 +	16 +	14 +	14 +

BREAK AND RUN, IF UNDER FIRE OR BEING CHARGED – OTHERWISE RETREAT (BACKS TO ENEMY) FOR 3 PERIODS

RETIRE – DISORGANISED, BUT WILL FACE ATTACK – 2 PERIODS

HALT – 2 PERIODS

CARRY ON WITH CURRENT ORDER OR TAKE ANY PERMITTED OPTIONAL ACTION

ACT AS C in C WOULD WISH – WRITE NEW ORDER AND IMPLEMENT AT ONCE

UNCONTROLLED ADVANCE IN ATTEMPT TO CONTACT (2 PERIODS) AND CONSIDER CURRENT ORDER CANCELLED

2. Unit no longer in possession of current order, or order completely carried out and not replaced

A	B	C	D	E
-2	-1	1	2	3
-1 TO +3	0 TO +4	2 TO 5	3 TO 6	4 TO 8
4 TO 7	5 TO 8	6 TO 9	7 TO 10	9 TO 11
8 TO 12	9 TO 12	10 TO 13	11 TO 13	12 TO 13
13 TO 15	13 TO 15	14 TO 15	14	14
16 +	16 +	16 +	15 +	15 +

BREAK AND RUN, IF UNDER FIRE OR BEING CHARGED – OTHERWISE RETREAT (BACKS TO ENEMY) FOR 3 PERIODS

IF PURSUING HALT – DISORGANISED – 1 PERIOD
IF ALREADY HALTED – RETIRE FOR 2 PERIODS

MOVE TOWARDS NEAREST FRIENDLY TROOPS BUT AWAY FROM ENEMY – OR MOVE TOWARDS NEAREST COVER OR HILL IN REAR – 2 PERIODS

MOVE TOWARDS NEAREST ENEMY – 2 PERIODS

ACT AS C in C WOULD WISH – WRITE NEW ORDER AND IMPLEMENT AT ONCE

UNCONTROLLED ADVANCE IN ATTEMPT TO CONTACT (2 PERIODS).

MOVEMENT

GENERAL

Both sides move simultaneously, before any shooting or hand-to-hand combat is adjudicated.

The normal move for heavy and medium infantry is based on walking speed, that for light-medium and light infantry on a jog trot.

That for extra heavy, heavy and medium cavalry is based on a combination of walk and slow sitting trot, that for super heavy cavalry on walk alone, and that for light cavalry on an easy canter.

Troops with metal armour have their moves slightly reduced.

CHARGING

A charge is any move intended to result in hand-to-hand combat with an enemy who is within reach at the start of the period.

It must be declared before any movement by either side takes place.

The opponent then decides which of the counter actions permitted him, such as "countercharge", "standfast" or "evade" to use.

A unit with orders to charge any enemy coming within reach will count as countercharging, even if no charge is intended against it.

The same applies when a unit ordered to support another sees it threatened.

A charge move is assumed to start at normal speed, but also assumes that cavalry will break into a gallop as soon as possible after coming within 150 paces of the enemy, and that infantry will cover the last 30 paces at a run.

As manoeuvre is extremely difficult at gallop or run, all turns, wheeling or formation changes must be completed before normal move distance is exceeded. All remaining movement must then be in a straight line at right angles to the charging units front.

*

EVADING

An evade move is an attempt to avoid contact, possible only to troops ordered to skirmish.

It is equivalent in length to a normal move, but includes an initial turn directly away from the enemy. No deduction is made for this turn.

The evade is measured from the ^{nearest point to the enemy that would have been reached had he} point that would have been reached had the enemy not charged. not advanced.

Any further changes of direction must be turns, not wheels.

Evaders who do not move far enough to get beyond reach of the charging units remaining move distance are caught with their backs turned and cannot defend themselves.

If they do have enough move to get clear, they will halt at the end of the move and remain halted reorganising for the whole of the next period.

In this case, the chargers must rally back during the period following their charge. This does not apply if the movement the evaders avoided was not intended to result in a contact except accidentally.

If evaders have any figures more than 2 ranks deep, their evade distance is halved.

Evading troops can pass through a friendly unit. If chargers wish to follow, both must test reaction, irrespective of the distance at which the second enemy formation is first sighted. If contact results, the chargers are not disorganised by their pursuit, as it is still part of the original charge.

* A charge normally terminates on the line of first contact. However, the charger may if he wishes move figures not in contact straight forward up to the full extent of their move provided they are still in base contact with his main body, thus getting more in combat

UNCONTROLLED ADVANCE

This can only be initiated by a reaction test.

Organisation is lost during the second period of advance, or earlier if a change in the original direction is attempted, as each figure turns individually instead of the unit wheeling.

Movement is at charge speed during the first period, and at charge speed minus 30 paces during the second. The first period of any rout or pursuit immediately ensuing will then count as a second. If no enemy has been contacted by the end of the second period, the unit will halt and spend a period reorganising.

RALLYING BACK

This should not be confused with rallying from a rout.

A unit rallying back turns and moves as nearly as possible straight back for 100 paces, or a normal move, whichever is the lesser.

It then halts, facing the most important threat, ready to charge again next period.

As this simulates troops wandering back as individuals and falling in on their officers, the unit can rally in any desired formation.

MOVING IN HOLLOW SQUARE

Troops moving in hollow square do so at half normal speed only.

They require $\frac{1}{4}$ period to turn to meet an attack from any direction except that in which they are moving, regardless of troop type.

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 or by turns.

Wheels by columns not more than 60mm wide, which are of not less than 30 paces inside diameter, and turns made while, rallying back, rallying from rout, changing the direction of an uncontrolled advance, or initiating an evade, rout or break away, do not reduce the distance moved.

Regular infantry and cavalry, and barbarian light infantry and light cavalry, take $\frac{1}{4}$ period to turn 90 or 180 degrees.

When wheeling, their inner figure remains stationary as a pivot, while the outer figure moves at normal speed forward or half speed backwards.

Barbarian light-medium and heavier troops, elephants, engines, camels, chariots and other vehicles take $\frac{1}{2}$ period to turn, and wheel, forwards only, at half speed.

FORMATION CHANGES

Regular units frontages can be expanded or reduced by 4 figures in each $\frac{1}{4}$ period, barbarians frontages by only 2 figures, *reducing the time available for other movement.*

Mounting or dismounting takes a $\frac{1}{2}$ period. No animal holders are required as the horses or camels are assumed to be picketed 60 paces behind the initial position of the fighting line. The troops must return to this spot to remount.

EFFECT OF DISORGANISATION ON MANOEUVRE

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

PUSH BACKS.

When troops are adjudged to have been pushed back by their opponents during a period of hand-to-hand combat, this is assumed to have happened more or less gradually during that period, but is deducted from the move distance for the NEXT period.

DIFFICULT TERRAIN

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. Off-road movement on steep hills.
2. Among buildings and garden enclosures, or through breaches in stone fortifications.
3. In woods.
4. Over boggy ground.
5. Over soft sand.
6. Over linear obstacles such as streams, ditches, walls and hedges, 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 cases 2 and 6, and in the same way as vehicles in all other cases.

Camels are treated in the same way as infantry in case 5, and in the same way as vehicles in all other cases.

Man-handled bolt-throwing engines have the same limitations as cavalry.

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

1. On stairs or ladders, including scaling ladders when attacking stone fortifications.
2. Inside buildings.
3. Over marsh.
4. Off-track movement on rock slopes.
5. Over palisades, turf ramparts or abatis.

There is no movement penalty for slight hills less than 40mm high, although these still count as height advantage for vision, shooting or melee.

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.

Rivers twice this width can only be crossed by light cavalry, and those three times the width cannot be crossed at all.

None of these restrictions apply to fords, which count as no obstacle if less than 30 paces across, and as double distance for all troops if further, and therefore deeper.

Movement on roads is always at the speeds for good terrain, except that on steep hills, mounted troops of all types are restricted to normal move distances at all times.

INTERPENETRATION

Light infantry can pass through any stationary troops in good order.

Light cavalry can pass through stationary light cavalry or light infantry in good order.

All other interpenetrations result in both parties becoming disorganised.

MOVE DISTANCES

	Normal	Charge
Super heavy cavalry and camels	60 paces	120 paces
Extra heavy cavalry and camels	80	160
Heavy cavalry and all other camels	80	180
Medium cavalry	80	200
Light cavalry	160	240
All chariots with crews of 2 men or less, or with more horses than men and more than 2.	80	180
All other horse or ass-drawn chariots	60	120
Elephants	80	100
Light and light-medium infantry	80	100
Medium infantry	60	80
Heavy infantry	40	60
Mounted infantry and pack horses or mules	80	None
Dismounted cavalry	20 paces less than equivalent infantry in all respects.	
Man-handled light bolt-throwing engines	60	None
Dart-throwing engines drawn by mules	80	None
Engines drawn by oxen	20	None
Ox or horse-drawn wagons	40	None
Siege towers and penthouses	20	None
Ships under oars	120	None

DISORGANISATION AND DISTRACTION

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

Recovery is automatic when all the possible causes are removed, *unless being pushed back in melee*.

A disorganised unit or sub-unit counts half the figures of its nearest rank only when shooting or fighting, and its ability to change formation or direction may be reduced.

These penalties are imposed only once, regardless of the number of causes operating.

Possible causes are:

1. Having routed and not yet rallied, been engaged hand-to-hand by a fresh enemy force while pursuing, or being in process of rallying back, or reorganising, or having been caught sleeping.
2. Being contacted in a charge before completing, a formation change, mounting or dismounting, embarking or disembarking, or while not facing within 45 degrees of the direction of charge at the moment of contact.
Mounted infantry will always attempt to dismount to fight.
3. Formation split by a gap at least 10 paces wide.
4. Having suffered 1 casualty per figure from missiles earlier in the same period.
5. Troops other than light or light-medium infantry, having had their movement obstructed by difficult terrain during the current period.
6. Infantry other than light or light-medium who are moving at the moment that they are contacted by charging mounted troops.
7. Horsed troops within 30 paces of camels or elephants, if there are any in their own army, or within 100 paces if there are not.
8. Moving out of control for the second period in succession, or changing direction while out of control.
9. During a period following one in which elephants or chariots have been met in hand-to-hand combat.
10. Troops whose formation has been interpenetrated during the current period by friends other than those allowed to do so without penalty, or who are being pushed back against an impassable obstacle or unyielding friends.

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 needing both hands such as bows, staff-sling, pike, long axe or rhomphaia, or using hands for climbing, carrying or pushing, cannot use shields.

The only exceptions are super heavy cavalry, who do not need shields because of their exceptionally complete armour.

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

SHOOTING

GENERAL

The results of shooting are evaluated after all moving has been completed and before hand-to-hand combat commences, but the shooting itself can be assumed to take place at any suitable time within the period.

AMMUNITION SUPPLY

This is not taken into account. Initial issues and replenishment at unit level, together with salvaged enemy missiles are assumed to be sufficient.

SHOOTING ARCS

Light cavalry and camelry, elephant riders and chariot crews can shoot all round.
Other light troops and light dart-throwing engines can shoot within 45 degrees of straight ahead.
All other troops and engines can shoot within $22\frac{1}{2}$ degrees of straight ahead.

TARGET PRIORITIES

All missile weapons which are not hand-hurled must obey the following target priorities.

1. An enemy formation advancing towards them and capable of charging them during the present or following period.
2. At least half their own number of missile men shooting at them and within their own range.
3. Enemy attacking or shooting at friendly troops that they are directly ordered to support or who form part of their own unit, or enemy who they have been ordered to treat as a priority target.
4. Any enemy missile men firing at them.
5. Advancing enemy.
6. Nearest enemy.

RANGES

Hand-hurled weapons	40 paces
Archers mounted on horses, camels or elephants or in chariots	120 paces
Foot archers	240 paces
Slings	120 paces
Staff-sling	240 paces
Cross bows	300 paces
Projectile-throwing engines	480 paces

Troops who are uphill from their targets or who are carried by an elephant or fighting from a raised rampart add 20 paces to these ranges.

Troops higher up a terrain slope are always considered to be higher than an elephant or fortification.

Troops downhill from their target or shooting up at a rampart or similar, but NOT those shooting at elephants, deduct 20 paces.

All missile weapons have their maximum ranges reduced to 20 paces when shooting inside a wood. This does not apply to weapons at the edge shooting out.

SHOOTING ON THE MOVE

All troops except engines, staff-slings and crossbows can shoot while moving forward. Light cavalry and camelry can shoot behind while retreating as well.

If one body of troops moves through another, only one of them may shoot.

Mounted infantry must dismount to shoot.

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 move distance away before evading or taking up hand-to-hand weapons.

Charging or pursuing troops may only shoot if the enemy succeeds in moving out of reach, and will then do so at the end of their move. They will count disorganised because they have not yet rallied, but their targets will be assumed to have their backs turned and will count shieldless.

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

SHOOTING OVERHEAD

All troops can shoot over intervening troops at a lower level without penalty.

Elephant crews can shoot over both infantry and cavalry without penalty.

Foot archers can shoot over any intervening troops on the same level, but their maximum range is halved and the effect reduced.

*

SHOOTING INTO A MELEE

A front rank engaged in hand-to-hand combat or any troops of a unit which is pursuing or pursued and is still in contact are not admissable as a missile target.

CREW-SERVED WEAPONS

Chariot or elephant crews, except for the driver, may shoot as horse bows or javelins depending on their equipment.

Each crew figure for an engine has the same effect as a crossbowman, but at increased range.

WEAPON FACTORS

These are used in conjunction with tactical and random factors and the number of figures engaged 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.	HC.	MC.	LC.	HI.	MI.	LI.	EI.	Ch.
Crossbowmen and engine crews.	1	1	1	0	1	1	0	1	0
Darts, javelins, all slings and bows.	0	3	4	1	2	3	1	1	1

*

An overhead target must be visible to at least one figure of the unit shooting, or of an intervening unit it has orders to support. Shooting at elephants, the upper floors of siege towers or troops on ramparts or roofs, over an intervening body of troops, does not count as overhead, but the elephants do count as being in partial cover.

Engines can shoot at enemy on higher ground over the heads of intervening troops without penalty.

SPECIAL TARGET VULNERABILITIES

Elephants and chariots are mentioned in the weapons factor table, and engines have the same vulnerability as light infantry, the cover provided by the machines cancelling out the shieldless factor.

Casualties to all these are computed as elephants, engines, chariots etc., not as individual crew members. 20 hits are needed to disable a ~~figure~~ ^{model}, although it represents 8. *Engine groups share casualties as if they were formal units.*

Light troops with any figures more than 2 ranks deep count as a medium target.

Light-medium infantry count as a medium infantry target.

Extra heavy cavalry count as a super heavy cavalry target when shot at by figures to their front and as a heavy cavalry target to figures behind their flank.

Cavalry engaged in mounting or dismounting always count as a mounted target.

Dismounted cavalry count as their infantry equivalent except for super heavy cavalry, who count as if still mounted.

TACTICAL FACTORS

These are added to or subtracted from the weapon factors.

Subtract 1 if:

1. Foot archer unit with any of its figures shooting overhead on the flat.
2. Troops other than stone-throwing engines shooting at enemy in partial cover.
3. Shooting at troops which are moving at least 60 paces during the period.
4. Mounted or foot archers firing at more than 60 or 120 paces range respectively.

Add 1 if:

1. Shooting at cavalry or heavy infantry who are unable to use their shields, with any weapons except engines.

Add 2 if:

1. Shooting at medium or light infantry who are unable to use their shields, with any weapons except engines.

RANDOM FACTOR

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

For all but E type troops,

Throw one red dice counting minus and one black dice counting plus.

If the result is minus, subtract 1, if plus, add 1.

Different random factors are employed for hand-to-hand combat.

E type troops, combining lack of enthusiasm and incompetence in various degrees, disregard an overall plus result, and subtract the full difference between the two scores if the result is minus.

HAND-TO-HAND COMBAT

FIGURES ELIGIBLE TO TAKE PART

- Figures in base to base contact with an enemy to their front, or overlapping by one figure on the shielded side or by 3 figures on the unshielded side or overlapping super heavy cavalry, chariots, ^{engines} or elephants by 2 on each or either side. Elephants ^{engines} and Chariots may themselves only overlap one on each or either side.
- Regular heavy or medium or light-medium infantry not engaged in firing, in a rank permitted to fight, and directly behind a figure eligible under 1.
- Figures in base to base contact with the enemy flank or rear after lapping round in a second or subsequent period of fighting.
Lapping round is limited to troops who have not been pushed back during the previous period. Any previously unengaged enemy troops of the attacked unit can turn and move to meet such an attempt, and may prevent it.
- Engines, chariots or elephants in base contact with an enemy to their flank or rear.*

WEAPON FACTORS

These vary according to the weapon in use and the type of target.

	Regular ranks permitted to fight.	SHC.	HC.	MC.	LC.	HI.	MI.	LI.	EI.	Ch.
Cavalry armed with knightly lance or 12ft. kontos, and with a sword or the equivalent.	1	2	3	4	3	4	5	3	0	1
Cavalry armed with short spear and/or javelins, and with sword.	1	0	2	5	4	3	4	5	1	2
Cavalry armed with bow and sword.	1	0	1	2	3	1	2	4	1	1
Infantry armed with two-handed 18ft. pike and sword.	4	1	2	3	0	2	3	1	1	2
Infantry armed with short thrusting spear up to 7ft. long or long thrusting spear up to 12ft long and sword.	1½	0	3	4	1	3	4	2	0	1
Roman and German medium or heavy infantry armed with pilum or other heavy throwing spear or francisca and with sword.	1½	1	2	2	2	4	5	4	1	2
Infantry armed with darts or light javelins and with sword.	1½	0	1	1	3	3	4	5	1	2
Infantry armed with two-handed axes, swords or rhomphaia.	1	4	5	5	1	5	5	2	1	1
Slinger, archer, crossbowman or artilleryman armed with short sword or similar.	1	0	1	1	1	1	2	3	1	2
Elephant and driver	1	2	2	3	1	3	4	2	1	3
Chariot and driver	1	3	4	5	3	4	5	2	0	4
Add 3 for each crewman using long spear or pike, 2 for javelinman, 1 for archer, or armed driver.										

Troops armed with two classes of weapons may choose to use either.

The number of ranks allowed to fight have been selected to encourage the use of tactical formations actually described in ancient military manuals.

CREW-SERVED WEAPONS

If engines are caught in melee, each crew member fights.

Elephants and chariots differ in that the beast or vehicle fights but the weapon factor is increased for each crew member additional to the driver.

When elephants or chariots are engaged in flank or rear but not frontally, only the crews share of the weapon factor counts. Crews should not be dismounted.

Celts are already assumed to fight immediately around as well as inside their chariots.

Casualties on engines, elephants or chariots are deducted as for missiles.

TACTICAL FACTORS

These are added to or subtracted from weapon factors.

Subtract 1 if:

1. Fighting an enemy who is behind partial cover such as a wall or parapet. The edge of a wood does not constitute such cover in hand-to-hand combat.
2. Any troops except ~~pikes~~ ^{pike armed infantry} who are facing ~~pikes or long spears~~ ^{infantry armed with pikes or long spears}.
3. Fanatics during their second and subsequent periods of close combat of the game.

Add 1 if:

1. Fighting cavalry or heavy infantry who are unable to use shields.
2. Own troops are charging, counter-charging or following up.
3. Own troops are up slope of their opponents, or moved down a slope to engage them during the period.

Add 2 if:

1. Fighting medium or light infantry who are unable to use shields.
2. Fighting against the flanks or rear of super heavy cavalry.
3. Fanatics during their first period of close combat during the game.

RANDOM FACTOR

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

If regulars are fighting, throw one red and one black probability dice numbered 2, 3, 3, 4, 4, 5.

Red counts minus, black plus.

Add or subtract the whole of the result.

If barbarians are fighting, the black dice should have the normal numbering of 1, 2, 3, 4, 5, 6 as they are less predictable.

Apart from this, the procedure is the same as for regulars, *except that E type troops add only 1 if the overall result is plus. They still deduct the full difference in case of a minus result.*

If the General fights hand-to-hand in the front rank with his troops, the unit he is with disregards any minus random factor, *unless composed of E types.*

This is especially valuable for barbarian troops.

However, if a barbarian general refuses a challenge to personal combat by an opponent of equal rank, he loses this power.

CASUALTY CALCULATION

Having added the appropriate weapon factor, and 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. Then read across until you come to the column corresponding to the number of your troops firing 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, carry the remainder forward.

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 number of figures involved exceeds 20, read chart in multiples of 10+ remainder, i.e. 32 figures at factor of 3 is $3 \times 16 + 3 = 51$. If the Total of Factors is 13 or more, each figure fighting scores 3 extra casualties for every factor over 12.

Example:

10 slingers exchanging fire with horse archers galloping past their front.

Slingers weapon factor against light cavalry is 1.

Tactical factors are - 1 because cavalry are moving more than 60 yards, +1 because horse archers cannot use shields while firing.

Red dice scores 3, black dice 5, Black is higher, so add 1.

Total of factors is 2.

10 men firing with factor of 2 cause 13 casualties.

No figures removed, carry 13 casualties forward.

AFTER HAND-TO-HAND FIGHTING

Troops, who in melee received more casualties than they inflicted, and have had 1 casualty per figure from melee and missiles combined, are pushed back 30 paces.

Their opponents must follow up unless they have orders to the contrary, such as to hold the position they now occupy, or are infantry receiving a mounted charge while halted, in which cases they must not.

Cavalry and chariots, but not camelry and elephants, who have been forced to recoil 30 paces but have not been followed up, must rally back before they can charge again.

Other troops may either rally back or reorganise on the spot, taking one period.

The defenders do not need to reorganise but cannot advance that period.

A square which pushes back its opponents may advance on any face it chooses, the other faces then being out of contact next period.

If a unit should be pushed back but has no room to move, it is disorganised until it pushes its enemy back. It will not push back friends, unless they are light troops with no figures more than 3 deep.

Troops who in melee received twice as many casualties as they inflicted and had 1 casualty per figure from melee and missiles combined are broken.

Troops who have been pushed back for a number of consecutive periods may also be broken.

“A” types break on the 5th push-back, “B” types on the 4th, “C” types on the 3rd, “D” types on the 2nd, and “E” types on the 1st.

If no unit breaks, the melee continues.

However, troops engaged in hand-to-hand fighting can break off voluntarily and retire. All except chariots and elephants, whose crews can fight all round, will receive blows without reply as they

turn. All must outdistance ^{will} pursuit that period or be broken if, & only if, they fail to outdistance pursuit that period. Such breaking off must be justified by orders or standing orders.

*

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 missiles. Divide the total casualties from hand-to-hand combat by the number of figures fighting in the front rank, missile casualties by the total number of figures under fire.

Debit this share from the General figure.

Multiply the number of casualties on the figure that period by the score of one dice of appropriate type.

If the result exceeds the number of men remaining in the figure at the start of the period, the general is wounded and must be escorted from the field by his men, or surrender if this is impractical.

If the figure loses all its men, the general is dead.

Missiles can only be concentrated on the figure if it is more than 50 paces from one of its own units and is neither moving to give or accept, or returning from, a challenge.

If a General accepts a challenge to personal combat, the figure with the lowest score is killed.

See next ^{entry} page

Engines follow up a retreating enemy only with missiles. An engine group which is broken is destroyed by the initial period of pursuit.

A push back loses all engines within that distance.

Engines & their transport are destroyed, not captured.

ROUT AND PURSUIT

BROKEN TROOPS

These will run with their backs to the enemy until able to rally.

If, when a unit breaks, it cannot immediately run, for example, if it is completely surrounded or backing an impassable obstacle, half the unit will surrender, and the other half will break out and be pursued.

If a general is involved, he will surrender if his personal figure is down to half strength.

Broken troops travel at charge speed where this is possible, minus 20 paces during the first period, and minus a further 20 paces for each subsequent period.

If they have not rallied before their move is reduced to zero or one of the figures has crossed the edge of the table, they are considered to have dispersed beyond rallying and the whole unit is permanently removed from the table.

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 own base line by the quickest route, or if no route is available because of barring enemy, to the nearest accessible table edge.

Being a mass of frightened individuals, they do not change direction by wheeling, but make sharp turns.

Each turn made to avoid an obstacle or interposing enemy force deducts 30 paces from their move for that period.

If they meet friendly troops, they will turn towards any gap at least 20 paces wide within 50 paces.

Failing this, they will burst through the friendly unit. Barbarian troops burst through in this way will be swept away and join the rout, except that barbarian light infantry will only sweep away their own kind.

If chariots or elephants burst through, there will be casualties.

These are adjudicated as for hand-to-hand combat, except that the crew do not take part.

Routing troops may attempt to break through enemy light cavalry or light infantry who bar their way.

The barring troops must carry out the normal reaction or evade sequence. If they evade, it must be angled to try and clear the path of the approaching rout.

If the rout does not break through in the initial period, it must turn to avoid them, or if this is impossible, surrender.

RALLYING BROKEN TROOPS

Routed troops may attempt to rally following any period during which they have not been in contact with an enemy force or lost 1 man per figure to missiles.

To do so they must take the appropriate reaction test, scoring better than halt.

If a general is involved in the rout, he has no influence to stop it.

Once having rallied from rout, troops require a further period to reorganise before they can move forward again.

→ the two figures fight hand-to-hand, first exchanging missiles, if any, the normal "no shooting during a charge" rule not applying. Normal weapon, tactical & random factors apply, including minus random factors. The only reasons for disorganisation that count are when a chariot or elephant mounted General receives a missile casualty, or when horses are scared by elephants or camels. If a General is mounted on a elephant or in a chariot, any other armed figures aboard are debared from assisting. A General who receives more casualties than his opponent is wounded & taken prisoner, one who receives twice as many, dead. If casualties are equal, fight again with hand-to-hand weapons only. 27
Loss of the General leads to a reaction test, not necessarily to the loss of the game.

PURSUERS

These follow the routed at charge speed, minus 30 paces during the first period, and minus a further 30 paces for each subsequent period.

They will strike without receiving return blows, at the moment at which the enemy turn their backs, and at the end of any period if they are still in contact.

They may therefore strike twice during the first pursuit period.

Any changes of direction made during the pursuit are made in the same way as those of the routed troops they follow, except that they can cut corners and therefore deduct only 20 paces for each turn.

If they wish to charge through enemy troops that their quarry have routed through, both sides must test reaction in the normal way, even if too close for a normal charge reaction.

The troops originally pursued may not attempt to rally until their intervening friends have turned the pursuers back or stood a period of combat without breaking.

All troops all of whose melee opponents break must normally pursue for at least one period.

If, however, their orders were to hold their present position, they can take a reaction test, and will only pursue if this results in "uncontrolled advance". or if it results in "act as general wishes", and the general does so wish.

Troops may halt at the end of any period of pursuit, and rally back next period.

TROOPS LEAVING THE FIELD

Troops who leave the table for any reason except rout will reappear at the same point if at the beginning of any of the next three periods a 3 or 4 is thrown, using a probability dice for regulars or a normal dice for barbarians. A score of 4 indicates an immediate return.

If the score is 3, throw the same dice again, the score this time indicating the number of periods before the force, now assumed to be visible in the distance, returns.

WINNERS AND LOSERS

If neither side has fled the field when the time has come to end the game, finish the current period then take any reaction tests that would be called for before the next period due to events in this one.

Count up each side's remaining points.

Do not count troops in rout during part of the last period of play, or who must start to rout due to final reaction tests, or who must leave the table at some future time due to reaction tests taken now or previously.

Include units which have left the table, but which have thrown dice indicating that they are returning and in sight.

This takes into account the difficulty of rallying after nightfall.

Add any objective points that have been previously agreed for the control of specified 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 unit 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.

However, National Convention games are usually played on a "Sudden death" basis, with any margin, however small, being enough to give the victory.

CAMPAIGNS

Many wargamers enjoy their battles more when they form part of a campaign.

Some of these are extremely elaborate; contain political and financial factors, and require large and detailed maps.

A less complicated form to cover a few battles between a pair of opponents is this.

1. The first battle is fought as a straight forward encounter. If this is drawn, the next will also be an encounter battle.
2. If one side loses, it is pushed back and fights on the defensive next time. As it knows the ground better than the enemy, it adds or subtracts up to 3 terrain units from those picked in the usual way, and can construct field defences until it balances its opponents superiority. If the defender wins, his opponent defends next time. If it is a draw, the first defender carries on.
3. If the defender loses, he takes refuge in a fortress with those troops he had left after the disaster. His opponent can then add siege equipment until the value plus his own troops equals that of the fortress and defenders.
If the attacker does not capture the fortress, he breaks up the siege and retreats, and the next battle will again be an encounter.

In a drawn game, each side recovers all its runaways and half its other losses.

A winner recovers all his losses, and a loser recovers half his runaways and a quarter of his other losses.

The remaining losses are recovered for the battle following.

Troops that have changed sides will continue to fight for their former enemy, but arabs may change sides again, while former subject races will not.

If the weather rules are to be used, start the series in spring, and have each battle take place a month after the previous one.

SIEGE, FIELD ENGINEERING AND SHIP-TO-SHORE FIGHTING

GENERAL

In order to telescope siege operations to a point where they can be reproduced on the table we have had to depart from a rigid time scale. If it makes you feel better, think of a period as being an hour of industrious work, including a 30 second flurry of shooting or movement. *Most of the activities mentioned in this section apply equally to sieges & to battles in open field.*

MOVEMENT OF MATERIAL

2 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.

A further period is required to erect it.

4 to 6 figures can carry a ram at normal speed.

A minimum of 6 figures is required to move a penthouse and 10 to move a tower, *plus 2 for every figure in it,* 1 wagon can carry a disassembled penthouse, 3 a tower, 1 a pontoon.

A cavalryman can carry a 40mm long fascine at normal speed and throw it into a ditch without penalty. A 60mm fascine must be carried by an infantryman, as can an empty gabion, at normal speed.

CONSTRUCTION

Abatis, saps, ditches, turf walls, palisades and 60 mm wide bridges or causeways each require ~~3~~ 5 figure/periods per 5 paces length.

If pontoons are available, bridging speeds are doubled.

50

~~30~~ 1 figure/periods are needed to assemble a penthouse from parts ready to hand, ~~1~~ to assemble a tower, ~~1~~ to make a ram from available timber.

1 figure/period is needed to fill a gabion. A fascine reduces ditch width by 5 mm.

DESTRUCTION

10 figure/periods are required to break down a fort door or 30 paces of palisade with a ram or with two-handed axes.

An elephant counts as 5 figures for this purpose.

A house door requires only 2 figure/periods.

30 figure/periods are needed to breach a stone curtain wall with a ram, 40 to render a tower untenable. Turf walls are immune to the ram.

If stone throwing engines attempt to breach walls or palisades the weapon factor is 1 below 150 paces, 0 if further, and each hit (casualty) counts as a figure/period of work. Aim is concentrated on the lower wall and therefore causes no casualties to defenders on the ramparts.

Alternatively, aim can be concentrated on the ramparts and the walls will escape serious damage.

Wagons, siege towers and other wooden constructions can only be destroyed by stone-throwing engines or by fire missiles, 20 casualty equivalents being required.

However, men or animals associated with the target are vulnerable to other missiles. Actual occupants of wooden constructions are lost if they are destroyed.

MINING

Mining must commence from a penthouse or similar shelter, and the exact aiming point of the tunnel written down and its progress recorded.

If the starting point is in view of the defenders, the besieger must declare when excavation starts.

The tunnel then requires 5 figure/periods to advance 5 paces, a maximum of 10 figures being employed.

A similar team can be employed by the defenders to countermine. If this starts within the fortifications, its commencement need not be announced.

If the countermine crosses the mine outside the fort, fighting underground with 3 figures per side lasts one period. If the counterminers have more casualties, their tunnel is completely collapsed, if not, the mine tunnel.

Half the miners from the collapsed tunnel escape.

Mining under water or marsh or against turf walls is impossible.

BREACHES

Breaches made by a mine passing under a wall, or by ram or stone-thrower, should be indicated by laying a piece of dark card, 60mm wide at the bottom and 90mm at the top, against it.

Alternatively, you can have special "damaged" wall sections ready to replace the originals.

A tower rendered untenable by mine or battery can be indicated by placing a breach card on the wall adjacent to it.

Any defending figures on the 90mm section or the tower at the time of the collapse are lost.

WORKING PARTIES

These can be any infantry or dismounted cavalry figures except barbarian "B" types. Any body of figures engaged on a task form a unit for reaction purposes. They count enemy troops within the fort as one enemy unit. Uncontrolled advance for figures carrying scaling ladders or fascines means exactly that, but in all other cases it means work at double speed, or if an enemy sortie is occurring, advance to contact it, ceasing work.

All figures count unshielded while working. However, they may be covered by other figures bearing pavises or mantlets, each of which covers both bearer and one other man over a 90 degree arc.

FIGHTING INSIDE FORTIFICATIONS

"Troops shooting from behind merlons or loopholes are treated as shielded and count cover at 3 times normal value. If not shooting, only stone throwing engines can hurt them.

Stone throwers can lob missiles over the walls from the inside, directed by men on the walls or towers who do not expose themselves to enemy missiles.

Those on the outside can do the same, shooting blind, in which case the casualties are halved and divided among all the units in garrison. Hand-to-hand combat is normal, except that escaladers count shieldless until they push the defenders back and get a footing. Until then, their opponents count in cover, but at its normal value. If escaladers are pushed back, their ladders are cast down"

Disorganisation due to fragmented front does not apply inside fortifications.

~~Breaches count as off-task movement on rock slopes.~~

Uncontrolled advance by defenders means move towards a breach or wall threatened with escalade, or failing these, sortie out.

FIRE

Any troops with orders to prepare them may use fire missiles.

Troops in the field must collect them from wagons, one serving 20 figures, or from pack animals, one serving 5 figures.

The period before they are used must be spent stationary, with no activity apart from preparing and lighting the missiles. Firing objects takes the same.

Normal ranges are halved for all but hand-hurled missiles.

The weapon factor is normally 1, but 0 for fire-resistant fort doors or palisades, or for siege towers or penthouses which are protected with green hides.

Fire can leap 10 paces downwind in light winds, 30 paces in strong winds.

Grass fires are only possible in very dry conditions and high winds.

A burning object or area becomes untenable when it has accumulated 20 fire casualty points, and remains so for 3 periods. An object that catches from another accumulates 5 fire casualty points per period.

Each figure fighting fire with a water source within 60 paces cancels one fire casualty point.

This cannot save an object which has accumulated 20.

A player wishing to use fire weapons should provide himself with a supply of cotton wool tinted with red, orange and brown water colours.

Fine fighters must have buckets. A water tank wagon lasts

10 bucket figure / periods.

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 piece of card 25 mm wide, painted in terrain colour, but with a sprinkling of small silver stars marked on it. They cannot be picked up again during the battle.

Troops of either side passing over caltrops count them the same as missile hits, with a factor of 0 for infantry, 1 for other troops.

Use the number of figures passing over them for the other parameter. No tactical factors are used but the usual chance factor applies.

SHIP-TO-SHORE FIGHTING

Crews for ships should be agreed between opponents.

As a general guide, raiding craft should have one fighting man per oar, the "Aurora" Roman galley should have one light javelin man for each upper deck oar, plus 5 heavier infantry, and a transport should have enough troops to cost 10 extra points for sea travel.

While on board, all the ships company count as one "C" or "D" class unit with no command factor needed, in cover, higher than a beach, but lower than a tree, cliff or building.

They ignore disorganisation for fragmented front.

Wading ashore counts as a deep ford, and climbing the ships side as mounting or dismounting. On land, they reform into their proper units, and ignore the ships except for counting them as friendly cover.

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 tests 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.
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, barbarians, a full period.

APPENDIX I.

BUYING AND CONVERTING A WARGAMES ARMY

By far the cheapest figures are the Airfix plastics. Two of the boxed sets, the Romans and Ancient Britons can be used as supplied, and the Robin Hood and Arab sets with relatively little conversion, while many other sets can be used as the basis for conversions to provide practically any type of warrior figure of the Ancient world.

The plastic used softens with heat and can be easily cut or welded by a needle stuck in a cork and heated over a candle flame, or by a fine pointed electric soldering iron. The only glue any use is Humbrol Universal.

Drawing pins can be provided as shields, plastic weapons changed for wire, or even the top half of one figure cut off and pinned or welded to the bottom of another. The only limit is your own ingenuity.

The main disadvantage of plastic figures is that they are flexible, and tend to shed paint in large flakes when they are bent. If you place a high value on your own painting time, you may therefore prefer metal figures which will preserve your skill longer.

The most important suppliers of metal figures are:

Miniature Figurines, Ltd.,
5 Northam Road,
Southampton, Hants. SO2 0NZ

A much improved range of figures which will shortly cover almost every period from Ancient Egyption onwards. Catalogue 18p.

Greenwood & Ball Ltd.,
198 Northholt Road,
South Harrow,
Middlesex.

A large range of Roman, Persian and Greek figures, now diversifying into other nations and periods.

Jack Scruby,
2044, S. Linwood,
Visalia,
California, U.S.A.

A fine range of Ancient figures, still growing.

Metal figures can also be converted with a modelling knife, or with solder, Plastic Padding, or Plasticine set with Banana Oil, or sticking with Durofix.

In addition, you can often mix in figures of other times or nationalities, to give the right air of non-conformity to a barbarian unit.

For example, a Hunnic unit can absorb Pictish, Persian, Egyptian, Gallic and Napoleonic Bashkir figures.

When you glue barbarians or light troops to their bases, don't make their formations **too** well drilled. Try to leave them a little ragged.

In a similar way, horses don't move in step; ask metal figure manufacturers to send you a mixture of horse types or positions. This really helps improve the appearance of your units.

Regular articles on conversion appear in Airfix Magazine and in Military Modelling, and occasionally in Slingshot, bi-monthly journal of the Society of Ancients, the specialist society for Ancient and Medieval wargamers.

The Society of Ancients is really a must for all ancient players. As well as producing Slingshot, it holds local meetings at various centres, and runs an annual wargames championship on a league basis, in which all members automatically take part.

The subscription is £1.50 in the U.K., or the currency equivalent of £1.75 overseas.

Write to the Secretary — Philip Barker, 757 Pershore Road, Birmingham B29 7NY.

PAINTING A WARGAMES ARMY

The easy way to paint is to do it 10 to 20 figures at a time.

Start off with the most extensive colour and really splash it on, then go back to the first of the batch and start on the second colour, working carefully.

If you use matt Humbrol paints, the first colour will be dry by the time you get back to it.

You will find you average about 1 minute per colour per figure.

Always use artists brushes, which have finer points and last longer than the cheap ones sold in model shops. In the long run you will save money, and in the meantime you will get much better results.

Never work straight from the tin, because a skin will form on your paint, especially if you wipe off the surplus on the lip of the tin, preventing it from seating properly when you put it back on. Transfer the paint to a pallet with a screwdriver or something similar, and don't be afraid of mixing colours. Put the lid back on immediately.

Wash your brushes with clean thinners as soon as you finish with them, and wipe and repoint them with a clean tissue.

Do not leave them point down in a jar to get bent.

If your figures are to be handled much, they will need to be varnished. Most people prefer matt varnish, which however, needs careful warming and much stirring before use if it is not to turn out glossy.

Gloss varnish is usually stronger than matt, and is especially useful for figures that do much travelling. Metallic paints tend to run if varnished too quickly, and should be left to dry for at least 48 hours first.

One common mistake in painting is to produce barbarians who are apparently dressed in uniform, where each should really be different.

Go through a batch in the normal way painting one colour, but paint a different part each time. For example, the first figures get a brown jacket, the next a brown cloak, next brown trousers, and so on.

This produces a spectacular effect in the mass.

A similar technique can be used with hair colour, and in varying the amount of facial hair.

Humbrol flesh colour needs red adding.

Another almost universal mistake is to paint horses in impossible colours. A horse with a brownish body can have its mane and tail the same colour or slightly lighter, or black.

The legs below the knee are always the same colour as the mane and tail or that of the body, whichever is darker.

Most horses have some white on the face and some white feet, rarely none and rarely all four.

Give the eyes a touch of black, and paint the hooves with dark earth.

Very few units, regular or barbarian, had horses which were even approximately the same colour.

Bronze or steel armour is often improved greatly by a thin wash of black to pick out the individual scales or pieces.

Gunmetal is ideal for iron mail.

Silver should be reserved for sword and spear blades.

Horn scale armour should be a blue-green colour.

A type of fancy nail varnish with fragments of gold in suspension makes excellent glittery gilt armour when applied over gold paint, which by itself is rather dull.

The Humbrol leather paint is ideal for hardened leather armour, but red bauxite or darker browns are better for thin leather jerkins.

Dyed leathers were much used, and most Roman belts, straps and horse harnesses were a dark red or maroon, with bronze or silverplated buckles.

Uniforms are dealt with in more detail in our companion range of army booklets, together with organisation and tactics.

An alternative type of paint, especially useful for plastic figures, is Rowney's Acrylic Gouache.

This is water based, but waterproof once it has dried.

Its big advantage is that it is less inclined than others to flake off when a plastic figure flexes, but metal figures must be handled very carefully until varnished.

THIS IS INTENDED AS A QUICK REFERENCE AND CALCULATION SHEET FOR PLAYERS ALREADY FAMILIAR WITH THE FULL RULES

TEST REACTION AT:-					+1					-1				
PLAYERS DISCRETION					EACH FRIEND UNIT WITHIN 150					EACH ENEMY UNIT WITHIN 150				
FIRST SHOT AT OR IN CHARGE REACH					MORE FRIENDS IN SIGHT					MORE ENEMY IN SIGHT				
2 CAS. PER FIG. FROM MISSILES.					FRIENDS ADVANCING WITHIN 150					ENEMY CAVALRY WITHIN 150				
ANIMALS EXPOSED TO FIRE.					FRIENDS CHARGING WITHIN 150					ENEMY ADVANCING WITHIN 150				
FIRST BELOW HALF STRENGTH					REAR SUPPORT WITHIN NORMAL MOVE					SHOT AT BY 1/2 OWN STRENGTH				
ATTEMPTING TO CHARGE					ENEMY RETIRING WITHIN 150					SHOT AT BY ENIGMES MOVED -40				
BEING CHARGED					FLANK OR REAR TEMPTS WITHIN 150					ENEMY BEHIND FLANK IN REACH				
FRIENDS ROUTING WITHIN 150					ENEMY DOWNHILL WITHIN 150					ENEMY TO REAR IN REACH.				
NOT WISHING TO PURSUE					FRIENDLY COVER WITHIN 100					ENEMY UPHILL WITHIN 150				
TRYING TO RALLY										DISORGANISED				
50 FRESH ENEMY FIGS AFTER 5 PERIODS										EACH 1/5 LOST OR SEPARATED				
SURPRISED BY ENEMY WITHIN 100					FANATICS IN CHARGE REACH OF ENEMY					RETIRED FRIENDS RETIRING				
GENERAL DISABLED					EACH ENEMY UNIT ROUTING WITHIN 150					ARMED WITH BOW OR CROSS BOW				
1/3 UNITS OFF TABLE										SHIELDLESS				
BARBARIAN 3x 123456 DICE					GENERAL WITHIN UNIT					CHARGING OR CHARGED BY FANATICS				
REGULAR 3x 233445 DICE					GENERAL WITHIN 150									
					BEHIND COVER OR IN SQUARE									
					EACH SECURE FLANK									

WEAPON FACTORS

SITUATION	WEAPONS	USED AGAINST										
			SHC	HC	MC	LC	MI	LI	EL	Ch.		
DISTANT	DARTS, JAVELINS, SLINGS AND BOWS	?	0	3	4	1	2	3	1	1	1	
	CROSSBOWS OR ENGINE CREWMEN	?	1	1	1	0	1	1	0	1	0	
CAVALRY HAND-TO- -HAND	KONTOS OR KNIGHTLY LANCE	1	2	3	4	3	4	5	3	0	1	
	SHORT SPEAR AND/OR JAVELINS	1	0	2	5	4	3	4	5	1	2	
	BOW AND SWORD	1	0	1	2	3	1	2	4	1	1	
INFANTRY HAND-TO- -HAND	TWO-HANDED PIKE	4	1	2	3	0	2	3	1	1	2	
	LONG OR SHORT THRUSTING SPEAR	1½	0	3	4	1	3	4	2	0	1	
	PILUM OR EQUIVALENT, AND SWORD	1½	1	2	2	2	4	5	4	1	2	
	JAVELINS OR DARTS AND SWORD	1½	0	1	1	3	3	4	5	1	2	
	TWO-HANDED AXE OR RHOMPHAIA	1	4	5	5	1	5	5	2	1	1	
	SLINGER, ARCHER, ARTILLERIST, ETC., WITH SWORD	1	0	1	1	1	1	2	3	1	2	
SPECIAL HAND-TO- -HAND	ELEPHANT MODEL	1	2	2	3	1	3	4	2	1	3	
	CHARIOT MODEL	1	3	4	5	3	4	5	2	0	4	
	+3 FOR CREWMAN WITH LONG SPEAR OR PIKE +2 IF JAVELINS, +1 IF ARCHER											

TACTICAL FACTORS

ARCHERS AT MORE THAN HALF RANGE	-1	CHARGING OR FOLLOWING UP	+1
ARCHERS SHOOTING OVERHEAD		UPHILL OF MELEE OPPONENT	
MISSILE TARGET MOVED 60 PACES		SHIELDLESS CAVALRY OR HEAVY INFANTRY	
ENEMY IN PARTIAL COVER		SHIELDLESS LI, LMI OR MI	+2
NOT PIKES, FACING PIKE OR LONG SPEAR		SHC FLANKED IN MELEE	
FANATICS IN SUBSEQUENT MELEE PERIOD		FANATICS IN 1ST MELEE PERIOD OF GAME	

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	5	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	16	18	20	23	26	28	30	33	35	38	40	43	45	48	50
6	3	6	9	13	16	19	22	26	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	202	214	227	240	252