# 0 A.D. is Actually Before Christ https://github.com/Oabc/Oabc-a23.git

A modification of 0 A.D. Empires Ascendant version 0.0.23 Alpha XXIII: Ken Wood

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#### 1 Introduction

**Oabc** is an acronym for "0 A.D. is Actually Before Christ". This mod tweaks, rebalances, and improves upon what already exists in the game. Amongst other things, it contains a moderate bonus attack counter and penalty system, more experience promotion ranks (0–12), and a new resource (silver).

**Oabc** serves as a showcase for what 0 A.D. easily could be at the moment, as a playground for me experimenting with modifying the game to get used to the code structure, and as a platform for including my own opinions and views to have the game the way I like it. Being a test mod of an alpha-stage game, it is inherently imperfect, unfinished, and restricted by my limited programming skills and the files available in 0 A.D.'s latest stable release.

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#### 1.1 Instructions

- Use git clone https://github.com/Oabc/Oabc-a23.git to get the repository directly or download it as a zip via https://github.com/Oabc-a22/archive/master.zip
- Place it in your /Oad/mods/ folder:

GNU/Linux (e.g. Fedora) typically: ~/.local/share/Oad/mods/ Macintosh/Apple OS X typically: ~/Library/Application\Support/Oad/mods/ Microsoft Windows typically: ~\Documents\My Games\Oad\mods\

- Launch 0 A.D., click "Settings" and "Mod Selection"
- Select Oabc, click "Enable" and "Save Configuration"
- Add, remove, or move up or down any other mods, click "Save Configuration" and "Start Mods"
- Click "Learn To Play" and "Structure Tree" to see the mod(s) implemented.

# 2 Units

# 2.1 Population costs

- ullet 0: fauna, catafalques, ships
- 1: infantry, women, healers, traders
- 2: camelry, cavalry
- 3: worker elephants
- $\bullet$  4: bigae, battering rams, bolt-shooters, stone-throwers
- 5: -
- $\bullet\,$ 6: quadrigae, war elephants, siege towers

## 2.2 Counters

${f unit}$	new penalties	new bonuses	restricted
war dogs	_	_	Ships, Siege, Structure
infantry lead-slingers	_	_	_
infantry longbowmen	$0.5 \times \text{vs Elephantry}$	_	_
infantry archers	$0.5 \times \text{vs Elephantry}$	_	_
infantry crossbowmen	_	_	_
infantry stone-slingers	_	_	_
infantry javelinists	_	_	_
infantry axe-throwers	_	_	_
infantry macemen	_	_	_
infantry axemen	_	_	_
infantry sabremen	_	_	_
infantry longswordsmen	_	_	_
infantry swordsmen	_	_	_
infantry spearmen	_	_	_
infantry pikemen	_	_	_
camel archers	$0.5 \times$ vs Elephantry	_	_
camel javelinists	_	_	_
camel spearmen	$0.5 \times \text{vs Elephantry}$	_	_
cavalry archers	$0.5 \times$ vs Elephantry	_	_
cavalry crossbowmen	_	_	_
cavalry javelinists	_	_	_
cavalry macemen	$0.75 \times$ vs Chariotry, $0.5 \times$ vs Elephantry	_	_
cavalry axemen	$0.75 \times$ vs Chariotry, $0.5 \times$ vs Elephantry	_	_
cavalry sabremen	$0.75 \times$ vs Chariotry, $0.5 \times$ vs Elephantry	_	_
cavalry swordsmen	$0.75 \times$ vs Chariotry, $0.5 \times$ vs Elephantry	_	_
cavalry spearmen	$0.75 \times$ vs Chariotry, $0.5 \times$ vs Elephantry	_	_
cavalry lancers	$0.75 \times$ vs Chariotry, $0.5 \times$ vs Elephantry	_	_
biga longbowmen	$0.5 \times$ vs Elephantry	_	Ships, Siege, Structure
biga archers	$0.5 \times \text{vs Elephantry}$	_	Ships, Siege, Structure
biga javelinists	_	_	Ships, Siege, Structure
quadriga archers	$0.5 \times \text{vs Elephantry}$	_	Ships, Siege, Structure
quadriga scythed	_	_	Ships, Siege, Structure
war elephants	_	_	_
bolt-shooters	_	$1.5 \times$ vs Elephant	_
stone-throwers	_	$2.0 \times \text{ vs Ships}$	_
battering rams	_	$2.0 \times$ vs Defensive	Organic
siege towers	_	$1.5 \times \text{ vs Tower}$	_

# 2.3 Unit types

## 2.3.1 Infantry

class	pop.	training costs	exp.	vision	walk	health	armour	damage	rate	range	other
	size	(s, f, w, i, s; time)	loot/up	range	$\mathbf{speed}$		(c, h, p, t)	(c, h, p, t)	(ms)	(m)	stats
infantry	1	30, 30, 0, 0, 0; 30	60/-	80	11.5	60	3, 1, 2, 1	0, 0, 4, 0	1000	80+1	
lead-slinger	(1)	(-, 50, 20, 0, 30; 10)	(100/100)	(80)	(10.8)	(50)	(10, 1, 1, -)	(1, 0, 9.5, -)	(1250)	(48)	
infantry	1	30, 30, 0, 0, 0; 30	60/-	80	10.0	60	1, 1, 1, 1	0, 0, 5, 0	1000	70+1	
longbowman	(1)	(-, 50, 50, 0, 0; 10)	(100/100)	(80)	(9.9)	(50)	(10, 1, 1, -)	(0,0,6,-)	(1000)	(72)	
infantry	1	30, 30, 0, 0, 0; 30	60/-	80	10.5	60	2, 1, 2, 1	0, 0, 6, 0	1000	60+1	
archer	(1)	(-, 50, 50, 0, 0; 10)	(100/100)	(80)	(9.9)	(50)	(10, 1, 1, -)	(0,0,6,-)	(1000)	(72)	
infantry	1	30, 30, 0, 0, 0; 30	60/-	80	9.0	60	1, 1, 1, 1	0, 0, 6, 3	1000	50+1	
crossbowman	(1)	(-, 50, 50, 0, 0; 10)	(100/100)	(80)	(9.9)	(50)	(10, 1, 1, -)	(0,0,6,-)	(1000)	(72)	
infantry	1	30, 30, 0, 0, 10; 30	60/-	80	11.5	60	1, 1, 1, 1	8, 0, 0, 0	1000	40+1	
stone-slinger	(1)	(-, 50, 20, 0, 30; 10)	(100/100)	(80)	(10.8)	(50)	(10, 1, 1, -)	(1, 0, 9.5, -)	(1250)	(48)	
infantry	1	30, 30, 0, 0, 0; 30	60/-	80	11.0	60	2, 1, 3, 1	0, 0, 12, 0	1000	30+1	
javelinist	(1)	(-, 50, 50, 0, 0; 10)	(100/100)	(80)	(12.6)	(50)	(10, 1, 1, -)	(0, 0, 16, -)	(1250)	(24)	
infantry	1	30, 30, 0, 0, 0; 30	60/-	80	10.5	60	3, 3, 3, 3	3, 6, 0, 0	1000	20+1	
axe-thrower	(1)	(-, 50, 50, 0, 0; 10)	(100/100)	(80)	(12.6)	(50)	(10, 1, 1, -)	(0, 0, 16, -)	(1250)	(24)	
infantry	1	30, 30, 0, 0, 0; 30	60/-	80	10.0	90	4, 3, 4, 5	7, 0, 0, 0	1000	3	
maceman	(1)	(-, 50, 40, 10, 0; 10)	(100/100)	(80)	(9.45)	(100)	(15, 5, 5, -)	(0, 5.5, 0, -)	(750)	(3.5)	
infantry	1	30, 30, 0, 0, 0; 30	60/-	80	10.5	90	4, 4, 4, 4	2.5, 5, 0, 0	1000	3	
axeman	(1)	(-, 50, 40, 10, 0; 10)	(100/100)	(80)	(9.45)	(100)	(15, 5, 5, -)	(0, 5.5, 0, -)	(750)	(3.5)	
infantry	1	30, 30, 0, 0, 0; 30	60/-	80	10.5	90	5, 4, 4, 3	0, 7, 0, 0	1000	3	
sabreman	(1)	(-, 50, 40, 10, 0; 10)	(100/100)	(80)	(9.45)	(100)	(15, 5, 5, -)	(0, 5.5, 0, -)	(750)	(3.5)	
infantry	1	30, 30, 0, 0, 0; 30	60/-	80	9.5	90	3, 5, 3, 5	0, 6, 0, 2	1000	3	
longswordsman	(1)	(-, 50, 40, 10, 0; 10)	(100/100)	(80)	(9.45)	(100)	(15, 5, 5, -)	(0, 5.5, 0, -)	(750)	(3.5)	
infantry	1	30, 30, 0, 0, 0; 30	60/-	80	10.0	90	4, 4, 4, 4	0, 4, 0, 4	1000	3	
swordsman	(1)	(-, 50, 40, 10, 0; 10)	(100/100)	(80)	(9.45)	(100)	(15, 5, 5, -)	(0, 5.5, 0, -)	(750)	(3.5)	
infantry	1	30, 30, 0, 0, 0; 30	60/-	80	10.0	90	3, 5, 4, 4	0, 0, 0, 7	1000	3	
spearman	(1)	(-, 50, 50, 0, 0; 10)	(100/100)	(80)	(8.55)	(100)	(15,  5,  5,  -)	(0, 3.0, 2.5, -)	(1000)	(4.5)	
infantry	1	30, 30, 0, 0, 0; 30	60/-	80	9.0	90	5, 3, 5, 3	0, 0, 3, 3	1000	6	
pikeman	(1)	(-, 50, 50, 0, 0; 10)	(100/100)	(80)	(7.2)	(100)	(15, 10, 10, -)	(0, 1.0, 3.0, -)	(2000)	(7.0)	

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#### 2.3.2 Camelry

class	pop.	training costs	exp.	vision	walk	$\mathbf{health}$	armour	damage	$\mathbf{rate}$	range	other
	size	(s, f, w, i, s; time)	loot/up	range	$\mathbf{speed}$		(c, h, p, t)	(c, h, p, t)	(ms)	(m)	stats
camel	2	35, 70, 0, 0, 0; 45	90/-	90	18.0	105	1, 1, 1, 1	0, 0, 6, 0	1000	60+3	
archer	(1)	(-, 100, 50, 0, 0; 15)	(130/150)	(92)	(17.55)	(100)	(15, 3, 1, -)	(0, 0, 7, -)	(1000)	(72)	
camel	2	35, 70, 0, 0, 0; 45	90/-	90	18.0	105	1, 1, 1, 1	0, 0, 15, 0	1000	30+3	
javelinist	(1)	(-, 100, 50, 0, 0; 15)	(130/150)	(92)	(17.55)	(100)	(15, 3, 1, -)	(0, 0, 18, -)	(1250)	(28)	
camel	2	35, 70, 0, 0, 0; 45	90/-	90	18.0	135	2, 2, 2, 2	0, 0, 0, 9	1000	4	
spearman	(1)	(-, 100, 50, 0, 0; 15)	(130/150)	(92)	(19.305)	(160)	(15, 4, 3, -)	(0, 6, 5, -)	(2000)	(4.5)	

#### 2.3.3 Cavalry

class	pop.	training costs	exp.	vision	walk	health	armour	damage	$\mathbf{rate}$	range	other
	size	(s, f, w, i, s; time)	loot/up	range	$\mathbf{speed}$		(c, h, p, t)	(c, h, p, t)	(ms)	(m)	stats
cavalry	2	40, 80, 0, 0, 0; 60	120/-	85	15.0	120	1, 1, 1, 1	0, 0, 6, 0	1000	70+2	
longbowman	(1)	(-, 100, 50, 0, 0; 15)	(130/150)	(92)	(17.55)	(100)	(15, 3, 1, -)	(0, 0, 7, -)	(1000)	(72)	
cavalry	2	40, 80, 0, 0, 0; 60	120/-	85	15.0	120	1, 1, 1, 1	0, 0, 7, 0	1000	60+2	
archer	(1)	(-, 100, 50, 0, 0; 15)	(130/150)	(92)	(17.55)	(100)	(15, 3, 1, -)	(0, 0, 7, -)	(1000)	(72)	
cavalry	2	40, 80, 0, 0, 0; 60	120/-	85	15.0	120	1, 1, 1, 1	0, 0, 6, 3	1000	50+2	
crossbowman	(1)	(-, 100, 50, 0, 0; 15)	(130/150)	(92)	(17.55)	(100)	(15, 3, 1, -)	(0, 0, 7, -)	(1000)	(72)	
cavalry	2	40, 80, 0, 0, 0; 60	120/-	85	15.0	120	1, 1, 1, 1	0, 0, 15, 0	1000	30+2	
javelinist	(1)	(-, 100, 50, 0, 0; 15)	(130/150)	(92)	(17.55)	(100)	(15, 3, 1, -)	(0, 0, 18, -)	(1250)	(28)	
cavalry	2	40, 80, 0, 0, 0; 60	120/-	85	15.0	150	3, 3, 3, 3	9, 0, 0, 0	1000	4	
maceman	(1)	(-, 100, 30, 20, 0; 15)	(130/150)	(92)	(21.06)	(160)	(15, 4, 2, -)	(0, 6.5, 0, -)	(750)	(3.5)	
cavalry	2	40, 80, 0, 0, 0; 60	120/-	85	15.0	150	3, 3, 3, 3	3, 6, 0, 0	1000	4	
axeman	(1)	(-, 100, 30, 20, 0; 15)	(130/150)	(92)	(21.06)	(160)	(15,4,2,-)	(0, 6.5, 0, -)	(750)	(3.5)	
cavalry	2	40, 80, 0, 0, 0; 60	120/-	85	15.0	150	3, 3, 3, 3	0, 9, 0, 0	1000	4	
sabreman	(1)	(-, 100, 30, 20, 0; 15)	(130/150)	(92)	(21.06)	(160)	(15, 4, 2, -)	(0, 6.5, 0, -)	(750)	(3.5)	
cavalry	2	40, 80, 0, 0, 0; 60	120/-	85	15.0	150	3, 3, 3, 3	0, 5, 0, 5	1000	4	
swordsman	(1)	(-, 100, 30, 20, 0; 15)	(130/150)	(92)	(21.06)	(160)	(15, 4, 2, -)	(0, 6.5, 0, -)	(750)	(3.5)	
cavalry	2	40, 80, 0, 0, 0; 60	120/-	85	15.0	150	3, 3, 3, 3	0, 0, 0, 10	1000	4	
spearman	(1)	(-, 100, 50, 0, 0; 15)	(130/150)	(92)	(19.305)	(160)	(15, 4, 3, -)	(0, 6, 5, -)	(2000)	(4.5)	
cavalry	2	40, 80, 0, 0, 0; 60	120/-	85	15.0	150	3, 3, 3, 3	2, 0, 0, 8	1000	4	
lancer	(1)	(-, 100, 50, 0, 0; 15)	(130/150)	(92)	(19.305)	(160)	(15, 4, 3, -)	(0, 6, 5, -)	(2000)	(4.5)	

## 2.3.4 Chariotry

${f class}$	pop.	training costs	exp.	vision	walk	$\mathbf{health}$	armour	damage	$\mathbf{rate}$	range	other
	size	(s, f, w, i, s; time)	loot/up	range	$\mathbf{speed}$		(c, h, p, t)	(c, h, p, t)	(ms)	(m)	stats
biga	4	90, 160, 0, 0, 0; 75	180/-	85	16.0	240	5, 5, 5, 5	0, 0, 7, 0	1000	70+2	arrow count: 1–2 (–)
longbowman	(1)	(-, 250, 100, 100, 0; 30)	(150/-)	(96)	(20.25)	(240)	(20, 7, 5, -)	(0, 0, 14, -)	(1000)	(76)	
biga	4	90, 160, 0, 0, 0; 75	180/-	85	16.0	240	5, 5, 5, 5	0, 0, 8, 0	1000	60+2	arrow count: 1–2 (–)
archer	(1)	(-, 250, 100, 100, 0; 30)	(150/-)	(96)	(20.25)	(240)	(20, 7, 5, -)	(0, 0, 14, -)	(1000)	(76)	
biga	4	90, 160, 0, 0, 0; 75	180/-	85	16.0	240	5, 5, 5, 5	0, 0, 21, 0	1000	30+2	arrow count: 1–2 (–)
javelinist	(1)	(-, 250, 100, 100, 0; 30)	(150/-)	(96)	(20.25)	(240)	(20, 7, 5, -)	(0, 0, 36, -)	(1250)	(32)	
quadriga	6	120, 240, 0, 0, 0; 75	240/-	85	17.0	360	6, 6, 6, 6	5, 10, 0, 10	1000	8	[melee]
scythed								0, 0, 8, 0	1000	60+2	[ranged]
	(1)	(-, 250, 100, 100, 0; 30)	(150/-)	(96)	(20.25)	(240)	(20, 7, 5, -)	(0, 0, 14, -)	(1000)	(76)	arrow count: $1-2$ (-)

## 2.3.5 Elephantry

class	pop.	training costs	exp.	vision	walk	$\mathbf{health}$	armour	damage	$\mathbf{rate}$	range	other
	size	(s, f, w, i, s; time)	loot/up	range	$\mathbf{speed}$		(c, h, p, t)	(c, h, p, t)	(ms)	(m)	stats
Indian	6	330, 330, 0, 0, 0; 90	360/-	95	12.0	660	12, 3, 9, 6	66, 0, 0, 0	1000	6	
elephant	(3)	(-, 250, 0, 250, 0; 30)	(150/-)	(100)	(8.45)	(750)	(25, 10, 10, -)	(150, 20, 0, -)	(1500)	(8)	
North African	6	270, 270, 0, 0, 0; 90	360/-	95	12.0	540	12, 3, 9, 6	54, 0, 0, 0	1000	6	
elephant	(3)	(-, 250, 0, 250, 0; 30)	(150/-)	(100)	(8.45)	(750)	(25, 10, 10, -)	(150, 20, 0, -)	(1500)	(8)	

## 2.3.6 Dogs

class	pop.	training costs (s, f, w, i, s; time)	$\frac{\mathbf{exp.}}{\mathbf{loot/up}}$	vision range	$egin{array}{c}  ext{walk} \  ext{speed} \end{array}$	health	$\begin{array}{c} \mathbf{armour} \\ (c,  h,  p,  t) \end{array}$	$\begin{array}{ c c } \mathbf{damage} \\ (c, h, p, t) \end{array}$	rate     (ms)	$ \mathbf{range} $ (m)	other stats
war dog	0 (0)	0, 30, 0, 0, 0; 15 (-, 100, 0, 0, 0; 15)	15/- (100/100)	30 (30)	14.0 (14.40)	30 (90)	, , ,	$0, 5, 5, 0 \ (0, 7, 2, -)$	1000 (1000)	2 (3)	

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# 2.3.7 Siege engines

${f class}$	pop.	construction costs	exp.	vision range	walk	$\mathbf{health}$	armour	$\mathbf{damage}$	$\mathbf{rate}$	$\mathbf{range}$	other
	$\mathbf{size}$	(s, f, w, i, s; time)	loot/up	packed/unpacked	$\mathbf{speed}$		(c, h, p, t)	(c, h, p, t)	(ms)	(m)	stats
scorpio	2	0, 50, 50, 100, 0; 60	-/-	100	8.0	100	5, 1, 50, 2	0, 0, 40, 20	4000	10-90	un/pack (ms): 4000 (10000)
bolt-shooter	(2)	(-, 0, 250, 250, 0; 20)	(200/-)	(120)	(8.1)	(200)	(5, 1, 50, -)	(25, 0, 150, -)	(4000)	(26-80)	l. splash: $-(5c+0h+75p)$
polybolos	4	0, 100, 150, 150, 0; 90	-/-	100	8.0	200	5, 1, 50, 2	0, 0, 40, 20	2000	15–95	un/pack (ms): 8000 (10000)
bolt-shooter	(2)	(-, 0, 250, 250, 0; 20)	(200/-)	(120)	(8.1)	(200)	(5, 1, 50, -)	(25, 0, 150, -)	(4000)	(26-80)	l. splash: $-(5c+0h+75p)$
oxybeles	4	0, 100, 150, 150, 0; 80	-/-	100	8.0	200	5, 1, 50, 2	0, 0, 100, 50	5000	20 – 100	un/pack (ms): 8000 (10000)
bolt-shooter	(2)	(-, 0, 250, 250, 0; 20)	(200/-)	(120)	(8.1)	(200)	(5, 1, 50, -)	(25, 0, 150, -)	(4000)	(26-80)	l. splash: $-(5c+0h+75p)$
stone-thrower	4	0, 100, 200, 100, 0; 100	-/-	100	7.0	250	5, 1, 50, 2	120, 0, 0, 0	5000	30-90	un/pack (ms): 12000 (10000)
	(2)	(-, 0, 400, 0, 250; 25)	(300/-)	(120)	(7.2)	(250)	(5, 1, 50, -)	(100, 0, 10, -)	(5000)	(26-80)	c. splash: $-(35c+0h+15p)$
small	4	0, 100, 250, 50, 0; 40	-/-	40	6.0	400	5, 1, 50, 2	80, 0, 0, 0	2000	7	garrison capacity: 6 (10)
battering ram	(3)	(-, 0, 350, 200, 0; 30)	(60/-)	(80)	(8.1)	(400)	(5, 1, 50, -)	(150, 0, 0, -)	(1500)	(6.5)	
large	4	0, 100, 350, 50, 0; 50	-/-	40	6.0	500	5, 1, 50, 2	80, 0, 0, 0	2000	9	garrison capacity: 10 (10)
battering ram	(3)	(-, 0, 350, 200, 0; 30)	(60/-)	(80)	(8.1)	(400)	(5, 1, 50, -)	(150, 0, 0, -)	(1500)	(6.5)	
siege tower	6	0, 200, 500, 300, 0; 150	-/-	100	4.0	750	5, 1, 50, 2	3, 0, 9, 0	2000	10-60+15	garrison capacity: 20 (20)
	(3)	(-, 0, 500, 300, 0; 60)	(60/-)	(80)	(6.3)	(500)	(5, 1, 50, -)	(2.5, 0, 12, -)	(2000)	(10-55+10)	arrow count: $2-12 (0-10)$

# 2.3.8 Ships

class	pop.	construction costs	exp.	vision	walk	$\mathbf{health}$	armour	$_{ m damage}$	$\mathbf{rate}$	range	other
	size	(s, f, w, i, s; time)	loot/up	range	$\mathbf{speed}$		(c, h, p, t)	(c, h, p, t)	(ms)	(m)	stats
fishing	0	0, 15, 60, 0, 0; 20	-/-	75	12.0	150	2, 2, 4, 2	0, 0, 0, 10	1000	5	garrison capacity: 1 (1)
boat	(1)	(-, 0, 50, 0, 0; 20)	(1/-)	(30)	(9.9)	(200)	(2, 2, 5, -)	(0, 10, 0, -)	(1000)	(5)	food capacity: 60 (40)
merchant	0	0, 30, 120, 60, 0; 40	-/-	90	11.0	600	3, 3, 6, 3	_	_	_	garrison capacity: 15 (15)
ship	(1)	(-,0,0,100,0;20)	(25/-)	(50)	(12.15)	(400)	(2, 2, 5, -)	(-)	(-)	(-)	trade gain: $0.75 (0.75)$
fireship	0	0, 0, 150, 0, 0; 15	-/-	60	13.0	450	4, 4, 8, 4	5, 5, 5, 5	100	10	regeneration: $-5(-6)$ ;
	(1)	(-,0,50,0,0;30)	(-/-)	(60)	(14.4)	(500)	(5, 5, 10, -)	(10, 10, 10, -)	(100)	(8)	death damage
barge	0	0, 50, 250, 100, 0; 50	-/-	120	10.0	1800	5, 5, 10, 5	0, 0, 6, 0	1000	60	garrison capacity: 45 (40)
(trireme)	(3)	(-, 0, 150, 150, 0; 40)	(100/-)	(90)	(14.58)	(1600)	(5, 5, 10, -)	(0,0,35,-)	(2000)	(55)	arrow count: 0–20 (3–13)
huge barge	0	0, 100, 400, 150, 0; 80	-/-	120	8.5	2700	5, 5, 10, 5	0, 0, 6, 0	1000	60	garrison capacity: 75 (40)
(trireme)	(3)	(-, 0, 150, 150, 0; 40)	(100/-)	(90)	(14.58)	(1600)	(5, 5, 10, -)	(0,0,35,-)	(2000)	(55)	arrow count: 0–30 (3–13)
triaconter	0	0, 60, 60, 30, 0; 30	-/-	105	10.0	300	5, 5, 10, 5	0, 0, 6, 0	1000	60	garrison capacity: 5 (20)
(bireme)	(2)	(-, 0, 125, 50, 0; 20)	(75/-)	(90)	(13.95)	(800)	(5, 5, 10, -)	(0,0,35,-)	(2000)	(45)	arrow count: 1–3 (2–10)
penteconter	0	0, 100, 100, 50, 0; 45	-/-	105	9.5	500	5, 5, 10, 5	0, 0, 6, 0	1000	60	garrison capacity: 10 (20)
(bireme)	(2)	(-, 0, 125, 50, 0; 20)	(75/-)	(90)	(13.95)	(800)	(5, 5, 10, -)	(0,0,35,-)	(2000)	(45)	arrow count: 1–5 (2–10)
trireme	0	0, 300, 300, 150, 0; 60	-/-	100	8.5	1500	6, 6, 12, 6	0, 0, 6, 0	1000	60	garrison capacity: 20 (30)
(trireme)	(3)	(-, 0, 150, 150, 0; 25)	(100/-)	(90)	(16.2)	(1400)	(5, 5, 10, -)	(0,0,35,-)	(2000)	(55)	arrow count: 2–10 (3–13)
quadrireme	0	0, 400, 400, 200, 0; 75	-/-	100	8.0	2000	6, 6, 12, 6	0, 0, 6, 0	1000	60	garrison capacity: 40 (30)
(trireme)	(3)	(-, 0, 150, 150, 0; 25)	(100/-)	(90)	(16.2)	(1400)	(5, 5, 10, -)	(0,0,35,-)	(2000)	(55)	arrow count: 4–20 (3–13)
quinquereme	0	0, 500, 500, 250, 0; 90	-/-	100	7.5	2500	7, 7, 14, 7	0, 0, 6, 0	1000	60	garrison capacity: 60 (50)
	(3)	(-, 0, 350, 200, 350; 30)	(150/-)	(110)	(16.2)	(2000)	(5, 5, 10, -)	(100, 0, 10, -)	(5000)	(10-72)	arrow count: 6–30 (1–10)

## 2.3.9 Support

class	pop.	training costs	exp.	vision	walk	health	armour	damage	rate	range	other
	size	(s, f, w, i, s; time)	loot/up	range	$\mathbf{speed}$		(c, h, p, t)	(c, h, p, t)	(ms)	(m)	stats
woman	1	0, 30, 0, 0, 0; 60	-/-	60	9.0	45	1, 1, 1, 1	5, 0, 0, 0	1000	15	build rate: $-(1.0)$
(female citizen)	(1)	(-, 50, 0, 0, 0; 8)	(10/-)	(32)	(9.0)	(25)	$(1,\ 1,\ 1,\ -)$	(0, 2, 0, -)	(1000)	(3)	
slave	1	30, 0, 0, 0, 0; 30	-/-	60	9.0	45	1, 1, 1, 1	_	_	_	build rate: 0.5 (0.5)
	(0)	(-, 0, 0, 50, 0; 20)	(10/-)	(12)	(9.0)	(100)	$(1,\ 1,\ 1,\ -)$	(-)	(-)	(-)	
healer	1	60, 30, 0, 0, 0; 60	-/-	60	9.0	75	1, 1, 1, 1	heal 1 HP	500	12	
	(1)	(-, 250, 0, 0, 0; 8)	(10/150)	(30)	(9.0)	(85)	$(1,\ 1,\ 1,\ -)$	(heal 5 HP)	(2000)	(12)	
trader	1	0, 50, 50, 50, 0; 30	-/-	60	9.0	100	1, 1, 1, 1	_	_	_	trade gain: $0.75 (0.75)$
	(1)	(-, 100, 0, 80, 0; 15)	(10/-)	(60)	(9.0)	(100)	$(1,\ 1,\ 1,\ -)$	(-)	(-)	(-)	
worker	3	0, 150, 0, 0, 0; 45	-/-	60	5.4	450	8, 2, 6, 4	_	_	_	build rate: 2.0 (2.0)
elephant	(1)	(-, 150, 0, 0, 0; 20)	(50/-)	(50)	(5.4)	(300)	(10, 5, 8, -)	(-)	(-)	(-)	

#### 2.3.10 Fauna

class	food amount	$\max _{ ext{gatherers}}$	exp.	vision range	walk speed	health	$\begin{array}{c} \mathbf{armour} \\ (c, h, p, t) \end{array}$	$\begin{array}{ c c } \mathbf{damage} \\ (c, h, p, t) \end{array}$	rate $(ms)$	$ \begin{array}{c} \mathbf{range} \\ \text{(m)} \end{array} $	behaviour
chicken	15	1	-	10	1.5	3	$\frac{(c, n, p, v)}{1, 1, 1, 1}$	(c, n, p, t)	(IIIS)	(III) —	domestic
peacock	25	1	_	10	$\frac{1.5}{2.5}$	5	1, 1, 1, 1	_	_	_	domestic
goat	75	2		10	4.5	15	1, 1, 1, 1	_			domestic
sheep	100	$\frac{2}{2}$	_	10	4.0	20	1, 1, 1, 1	_	_	_	domestic
pig	150	$\frac{2}{2}$	_	10	3.0	30	1, 1, 1, 1	_	_	_	domestic
flaming "	_	_	_	10	9.0	30	1, 1, 1, 1	_	_	_	domestic
zebu	300	5	_	10	5.0	60	1, 1, 1, 1	_	_	_	domestic
rabbit	20	1		10	3.5	10	1, 1, 1, 1	_			skittish
donkey	120	$\overset{1}{2}$	_	10	6.0	40	1, 1, 1, 1	_	_	_	skittish
horse	200	3	_	10	8.0	60	1, 1, 1, 1	_	_	_	skittish
pony	160	$\frac{3}{2}$	_	10	6.4	45	1, 1, 1, 1	_	_	_	skittish
dromedary camel	250	$\frac{2}{4}$	_	10	7.0	80	1, 1, 1, 1	_	_	_	skittish
deer	130	2	_	10	3.0	65	1, 1, 2, 1	_	_	_	skittish
gazelle	60	$\frac{2}{2}$	_	10	12.5	30	1, 1, 1, 1	_	_	_	skittish
giraffe	350	6	_	10	6.0	150	1, 1, 1, 1	_	_	_	skittish
" infant	140	$\overset{\circ}{2}$	_	10	5.4	60	1, 1, 1, 1	_	_	_	skittish
muskox	170	3	_	10	5.5	85	2, 1, 4, 1	_	_	_	skittish
wildebeast	210	3	_	10	8.5	105	2, 1, 2, 1	_	_	_	skittish
zebra	170	3	_	10	9.0	85	1, 1, 1, 1	_	_	_	skittish
African bush elephant	700	11	70	10	5.0	350	5, 3, 4, 2	99, 0, 0, 0	2000	6	defensive
" " infant	280	4	_	10	4.5	140	4, 2, 3, 1	_	_	_	skittish
Asian elephant	600	10	60	10	5.0	300	5, 3, 4, 2	90, 0, 0, 0	2000	6	defensive
" " infant	240	4	_	10	4.5	120	4, 2, 3, 1	-	_	_	skittish
North African elephant	500	9	50	10	5.0	250	5, 3, 4, 2	81, 0, 0, 0	2000	6	defensive
" " " infant	200	4	_	10	4.5	100	4, 2, 3, 1	_	_	_	skittish
walrus	320	6	_	10	2.0	160	4, 2, 4, 2	10, 0, 15, 25	2000	5	defensive
bear	280	4	_	10	6.0	140	4, 2, 3, 1	20, 20, 0, 0	2000	6	aggressive
boar	140	2	_	10	8.0	70	3, 1, 2, 1	8, 0, 0, 16	2000	4	aggressive
crocodile	180	3	_	10	4.0	90	7, 3, 9, 5	0, 30, 0, 0	2000	8	aggressive
rhinoceros	400	7	_	10	7.0	200	4, 2, 5, 3	20, 0, 0, 20	2000	6	aggressive
fox (red, arctic)	_	_	_	10	9.0	30	1, 1, 3, 1	0, 5, 5, 0	2000	2	defensive
dog (mastiff, wolfhound)	_	_	_	10	11.0	50	1, 1, 3, 1	0, 10, 10, 0	2000	3	aggressive
wolf (red, arctic)	_	_	_	10	12.0	70	1, 1, 3, 1	0, 15, 15, 0	2000	4	aggressive
lion(ess)	_	_	_	10	13.0	100	1, 1, 3, 1	0, 20, 20, 0	2000	5	violent
tiger	_	_	_	10	14.0	110	1, 1, 3, 1	0, 25, 25, 0	2000	6	violent
shark	_	_	_	10	9.0	180	1, 1, 1, 1		_	_	passive
whale (fin, humpback)	2000	5	_	10	15.0	400	7, 3, 5, 1	_	_	_	skittish

#### 2.4 Unit roster

#### 2.4.1 Support

	BRIT	CART	GAUL	GREE	IBER	KUSH	MACE	MAUR	PERS	PTOL	ROME	SELE
woman	V	V	V	V	V	V	V	V	V	V	V	V
trader	V	V	V	V	V	V	V	V	V	V	V	V
healer	Т	Т	Т	Т	Т	Τ	Т	Т	Т	Т	Т	T
elephant	_	_	_	_	_	_	_	V	_	_	_	_
slave	_	_	_	_	_	_	_	_	_	_	_	_

**NB**:  $\neg$ : not available for this faction, V: requires village phase, T: requires town phase, C: requires city phase, M: requires metropolis phase,  $\ast$ : only available at some captured structures.

#### 2.4.2 Infantry

1	BRIT	CART	GAUL	GREE	IBER	KUSH	MACE	MAUR	PERS	PTOL	ROME	SELE
infantry lead-slinger	_	_	_	_	_	_	_	_	_	_	_	_
" " mercenary	_	${ m T}$	_	${ m T}$	_	_	${ m T}$	_	_	${ m T}$	_	_
" " champion	_	_	_	_	_	_	_	_	_	_	_	_
infantry longbowman	_	_	_	_	_	V	_	V	_	_	_	_
" " mercenary	_	_	_	_	_	_	_	_	_	_	_	_
" " champion	_	_	_	_	_	_	_	_	_	_	_	_
infantry archer	_	V	_	_	_	_	_	_	V	_	_	Т
" " mercenary	_	_	_	${ m T}$	_	_	${ m T}$	_	_	${ m T}$	_	_
" " champion	_	_	_	_	_	$^{\mathrm{C}}$	_	_	_	_	_	_
infantry crossbowman	_	_	_	_	_	_	_	_	_	_	_	_
" " mercenary	_	_	_	_	_	_	_	_	_	_	_	_
" " champion	_	_	_	_	_	_	$\mathbf{C}$	_	_	_	_	_
infantry stone-slinger	V	_	Т	_	Т	_	_	_	_	V	_	_
" " mercenary	_	_	_	_	_	_	_	_	_	_	_	_
" " champion	_	_	_	_	_	_	_	_	_	_	_	_
infantry javelinist	T	_	V	V	V	_	V	_	Т	_	V	V
" " mercenary	_	${ m T}$	_	${ m T}$	_	${ m T}$	_	_	_	${ m T}$	_	_
" " champion	_	_	_	_	_	_	_	_	_	_	_	_
infantry axe-thrower	_	_	_	_	_	_	_	_	_	_	_	_
" " mercenary	_	_	_	_	_	_	_	_	_	_	_	_
" " champion	_	_	_	_	_	_	_	_	_	_	_	_
infantry maceman	_	_	_	_	_	_	_	_	_	_	_	_
" " mercenary	_	_	_	_	_	${ m T}$	_	_	_	_	_	_
" " champion	_	_	_	_	_	_	_	$^{\mathrm{C}}$	_	_	_	_
infantry axeman	_	_	_	_	_	_	_	_	_	_	_	_
" " mercenary	_	_	_	_	_	_	_	_	_	_	_	_
" " champion	_	_	_	_	_	$\mathbf{C}$	_	_	_	_	_	_
infantry sabreman	_	_	_	_	V	_	_	Т	_	_	V	_
" " mercenary	_	_	_	_	_	_	_	_	_	_	_	_
" " champion	_	_	_	_	_	$^{\mathrm{C}}$	_	_	_	_	_	_
infantry longswordsman	_	_	_	_	_	_	_	_	_	_	_	_
" " mercenary	_	_	_	_	_	_	_	_	_	_	_	_
" " champion	C*	_	_	_	_	_	_	_	_	_	_	
infantry swordsman	Т	_	V	_	_	T	_	_	_	_	Τ	_
" " mercenary	_	${ m T}$	_	_	_	_	_	_	_	${ m T}$	_	_
" " champion	_	_	$C^*$	_	_	_	_	_	_	_	$\mathbf{C}$	$^{\mathrm{C}}$
infantry spearman	V	V	${ m T}$	V	T	V	_	V	V	_	Τ	V
" " mercenary	_	${ m T}$	_	${ m T}$	_	_	${ m T}$	_	_	${ m T}$	_	_
" " champion		С		С	_		$\mathbf{C}$		C			_
infantry pikeman	_	_	_	_	_	Τ	V	_	_	V	_	Т
" " mercenary	_	_	_	_	_	_	_	_	_	_	_	_
" " champion	_	_	_	_	_	_	_	_	_	$\mathbf{C}$	_	$^{\mathrm{C}}$

**NB**:  $\neg$ : not available for this faction, V: requires village phase, T: requires town phase, C: requires city phase, M: requires metropolis phase, \*: only available at some captured structures.

#### 2.4.3 Cavalry

	BRIT	CART	GAUL	GREE	IBER	KUSH	MACE	MAUR	PERS	PTOL	ROME	SELE
cavalry longbowman	_	_	_	_	_	_	_	_	_	_	_	_
" " mercenary	_	_	_	_	_	_	_	_	_	_	_	_
" " champion	_	_	_	_	_	_	_	_	_	_	_	_
cavalry archer	_	_	_	_	_	_	_	_	Т	_	_	_
" " mercenary	_	_	_	_	_	_	_	_	_	_	_	${ m T}$
" " champion	_	_	_	_	_	_	_	_	C	_	_	_
cavalry crossbowman	_	_	_	_	_	_	_	_	_	_	_	_
" " mercenary	_	_	_	_	_	_	_	_	_	_	_	_
" " champion	_	_	_	_	_	_	_	_	_	_	_	_
cavalry javelinist	V	V	Т	V	V	V	Τ	V	V	_	Т	V
" " mercenary	_	${ m T}$	_	_	_	_	_	_	_	${ m T}$	_	_
" " champion	_	_	_	_	С	_	_	_	_	_	_	_
cavalry maceman	_	_	_	_	_	_	_	_	_	_	_	_
" " mercenary	_	_	_	_	_	_	_	_	_	_	_	_
" " champion	_	_	_	_	_	_	_	_	_	_	_	_
cavalry axeman	_	_	_	_	_	_	_	_	Т	_	_	_
" " mercenary	_	_	_	_	_	_	_	_	_	_	_	_
" " champion	_	_	_	_	_	_	_	_	_	_	_	_
cavalry sabreman	_	_	_	Τ	_	_	_	_	_	_	_	_
" " mercenary	_	${ m T}$	_	_	_	_	_	_	_	_	_	_
" " champion	_	_	_	_	_	_	_	_	_	_	_	_
cavalry swordsman	Т	_	V	_	_	_	_	Т	_	_	_	_
" " mercenary	_	${ m T}$	_	_	_	_	_	_	_	_	_	_
" " champion	_	_	_	_	_	_	_	_	_	_	_	_
cavalry spearman	_	_	_	_	Т	Т	_	_	Т	Т	V	_
" " mercenary	_	${ m T}$	_	_	_	_	_	_	_	_	_	_
" " champion	_	_	$\mathbf{C}$	_	_	$^{\mathrm{C}}$	_	_	_	$\mathbf{C}$	_	_
cavalry lancer	_	_	_	_	_	_	V	_	_	_	_	Т
" " mercenary	_	_	_	_	_	_	_	_	_	_	_	_
" " champion	_	$\mathbf{C}$	_	_	_	_	$\mathbf{C}$	_	C	_	_	$\mathbf{C}$

 $\mathbf{NB}$ : -: not available for this faction, V: requires village phase, T: requires town phase, C: requires city phase, M: requires metropolis phase, \*: only available at some captured structures.

#### 2.4.4 Exotic units

	BRIT	CART	GAUL	GREE	IBER	KUSH	MACE	MAUR	PERS	PTOL	ROME	SELE
camel archer	_	_	_	_	_	_	_	_	_	_	_	_
" " mercenary	_	_	_	_	_	_	_	_	T	${ m T}$	_	${ m T}$
" " champion	_	_	_	_	_	_	_	_	_	_	_	_
camel javelinist	_	_	_	_	_	_	_	_	_	_	_	_
" " mercenary	_	_	_	_	_	${ m T}$	_	_	_	_	_	_
" " champion	_	_	_	_	_	_	_	_	_	_	_	_
camel spearman	_	_	_	_	_	_	_	_	_	_	_	_
" " mercenary	_	_	_	_	_	_	_	_	_	_	_	_
" " champion	_	_	_	_	_	_	_	_	_	_	_	_
biga longbowman	_	_	_	_	_	_	_	_	_	_	_	_
" " mercenary	_	_	_	_	_	_	_	_	_	_	_	_
" " champion	_	_	_	_	_	_	_	$\mathbf{C}$	_	_	_	_
biga archer	_	_	_	_	_	_	_	_	_	_	_	_
" " mercenary	_	_	_	_	_	_	_	_	_	_	_	_
" " champion	_	_	_	_	_	_	_	_	_	_	_	_
biga javelinist	_	_	_	_	_	_	_	_	_	_	_	_
" " mercenary	_	_	_	_	_	_	_	_	_	_	_	_
" " champion	$^{\mathrm{C}}$	_	_	_	_	_	_	_	_	_	_	_
quadriga scythed	_	_	_	_	_	_	_	_	_	_	_	_
" " mercenary	_	_	_	_	_	_	_	_	_	_	_	_
" " champion	_	_	_	_	_	_	_	_	C	_	_	$\mathbf{C}$
Indian elephant	_	_	_	_	_	_	_	Τ	_	_	_	_
" " mercenary	_	_	_	_	_	_	$C^*$	_	С	_	_	_
" " champion	_	_	_	_	_	_	_	$\mathbf{C}$	_	_	_	$\mathbf{C}$
North African elephant	_	_	_	_	_	С	_	_	_	_	_	_
" " mercenary	_	_	_	_	_	_	_	_	_	_	_	_
" " champion	_	$\mathbf{C}$	_	_	_	_	_	_	_	$\mathbf{C}$	_	_
war dog	V	_	_	1	_	_	_	_	_	_	_	_

**NB**:  $\neg$ : not available for this faction, V: requires village phase, T: requires town phase, C: requires city phase, M: requires metropolis phase, \*: only available at some captured structures.

#### 2.4.5 Siege engines

	BRIT	CART	GAUL	GREE	IBER	KUSH	MACE	MAUR	PERS	PTOL	ROME	SELE
scorpio	_	_	_	_	_	_	_	_	_	_	С	_
polybolos	_	_	_	_	_	_	_	_	_	С	_	_
oxybeles	_	С	_	С	_	_	С	_	_	_	_	_
stone-thrower	_	С	_	_	_	_	С	С	_	С	С	$\overline{C}$
small battering ram	Т	Τ	Τ	Τ	Т	_	_	Τ	_	_	_	_
large battering ram	_	_	_	_	_	Τ	Т	_	Т	Τ	Τ	T
siege tower	_	_	_	_	_	_	С	_	_	С	_	$\overline{C}$

 $\mathbf{NB}$ :  $\neg$ : not available for this faction, V: requires village phase, T: requires town phase, C: requires city phase, M: requires metropolis phase, \*: only available at some captured structures.

#### 2.4.6 Ships

	BRIT	CART	GAUL	GREE	IBER	KUSH	MACE	MAUR	PERS	PTOL	ROME	SELE
fishing boat	V	V	V	V	V	V	V	V	V	V	V	V
merchant ship	Т	Τ	Т	Т	Т	Τ	Τ	Т	Т	Т	Т	Т
fireship	_	_	_	_	Т	_	_	_	_	_	_	_
war barge	Т	_	Т	_	Т	_	_	Т	_	_	_	_
war barge huge	_	_	_	_	_	_	_	С	_	_	_	_
triaconter	_	_	_	_	_	_	_	_	_	_	_	_
penteconter	_	_	_	Т	_	_	Т	_	Т	_	Т	Т
trireme	_	Τ	_	Т	_	Τ	Т	_	Т	Т	Т	Т
quadrireme	_	С	_	_	_	_	_	_	_	С	С	_
quinquereme	_	С	_	_	_	_	_	_	_	С	С	_

 $\mathbf{NB}$ : -: not available for this faction, V: requires village phase, T: requires town phase, C: requires city phase, M: requires metropolis phase, \*: only available at some captured structures.

# 3 Structures

# 3.1 Civic

class	building costs	pop.	$\mathbf{loot}$	armour	capture	garrison	health	territory	vision
	(s, f, w, i, s; time)	bonus	(s, f, w, i, s; exp)	(c, h, p, t)	$\mathbf{points}$	capacity		(root/radius/weight)	range
centre, crannog	0, 300, 300, 0, 0; 500	15	60, 60, 60, 0, 0; 250	3, 25, 35, 30	2500	20	3000	1/150/10000	100
(civil center)	(-, 0, 500, 500, 500; 500)	(20)	(-, 0, 200, 200, 200; 200)	(3, 25, 35, -)	(2500)	(20)	(3000)	(1/140/10000)	(90)
pillar	0, 0, 0, 100, 100; 100	0	0, 0, 0, 20, 20; 0	5, 25, 35, 30	_	_	1000	1/50/50000	50
(monument)	(-, 0, 0, 100, 100; 120)	(0)	(-,0,0,25,25;0)	(3, 20, 30, -)	(-)	(-)	(1200)	(1/38/40000)	(60)
(pillar)	(-, 0, 0, 100, 100; 80)	(0)	(-, 0, 0, 25, 25; 0)	(3, 20, 30, -)	(-)	(-)	(1000)	(1/38/40000)	(40)
temple	0, 0, 100, 100, 300; 300	0	0, 0, 20, 20, 60; 0	5, 25, 35, 30	1000	20	2000	0/50/50000	50
	(-, 0, 0, 0, 300; 200)	(5)	(-, 0, 0, 50, 50; 0)	(3, 20, 30, -)	(500)	(20)	(2000)	(0/40/30000)	(40)
library	0, 0, 150, 150, 450; 400	0	0, 0, 30, 30, 90; 0	5, 25, 35, 30	1000	25	2500	0/50/50000	50
	(-, 0, 0, 200, 200; 200)	(0)	(-, 0, 0, 50, 50; 0)	(3, 20, 30, -)	(500)	(5)	(2000)	(0/50/40000)	(40)
lighthouse	0, 0, 200, 200, 600; 500	0	0, 0, 40, 40, 120; 0	5, 25, 35, 30	1000	(5)	3000	_	200
	(-, 0, 0, 200, 200; 200)	(0)	(-, 0, 0, 50, 50; 0)	(3, 20, 30, -)	(500)	(5)	(2000)	(0/0/40000)	(180)
theatre	0, 0, 300, 300, 900; 600	0	0, 0, 60, 60, 180; 0	5, 25, 35, 30	1000	(5)	4000	0/100/50000	50
	(-, 0, 0, 500, 500; 500)	(0)	(-,0,0,125,125;0)	(3, 20, 30, -)	(500)	(5)	(2000)	(0/100/40000)	(40)
wonder	0, 0, 1000, 1000, 2000; 1200	0	400, 200, 200, 200, 200; 0	5, 25, 35, 30	3000	50	6000	1/100/65535	50
	(-, 1000, 1000, 1000, 1000; 1000)	(0)	(-, 300, 300, 300, 300; 300)	(3, 15, 25, -)	(2000)	(30)	(5000)	(1/100/65535)	(72)

# 3.2 Economic

class	building costs	pop.	$\mathbf{loot}$	armour	capture	garrison	health	territory	vision
	(s, f, w, i, s; time)	$\mathbf{bonus}$	(s, f, w, i, s; exp)	(c, h, p, t)	${f points}$	capacity		(root/radius/weight)	$\mathbf{range}$
field	0, 0, 100, 0, 0; 60	0	0, 0, 20, 0, 0; 0	5, 15, 40, 25	100	_	300	_	0
	(-, 0, 100, 0, 0; 50)	(0)	(-, 50, 0, 0, 0; 0)	(5, 15, 40, -)	(500)	(-)	(250)	(-)	(0)
corral	0, 0, 100, 0, 0; 30	0	0, 0, 20, 0, 0; 0	1, 5, 20, 10	300	3	500	-	30
	(-, 0, 100, 0, 0; 50)	(0)	(-, 25, 10, 0, 0; 0)	(1, 1, 20, -)	(500)	(-)	(500)	(0/20/30000)	(20)
storehouse	0, 0, 100, 0, 0; 40	0	0, 0, 20, 0, 0; 0	1, 5, 20, 10	300	4	700	_	30
	(-, 0, 100, 0, 0; 40)	(0)	(-, 0, 10, 0, 0; 0)	(1, 5, 20, -)	(300)	(-)	(800)	(0/20/30000)	(20)
farmstead	0, 0, 100, 0, 0; 50	0	0, 0, 20, 0, 0; 0	1, 5, 20, 10	300	5	900	_	30
	(-, 0, 100, 0, 0; 45)	(0)	(-, 100, 10, 0, 0; 0)	(1, 5, 20, -)	(300)	(-)	(900)	(0/20/30000)	(20)
small house	0, 0, 75, 0, 0; 25	5	0, 0, 15, 0, 0; 0	1, 5, 20, 10	200	3	600	_	30
	(-, 0, 75, 0, 0; 30)	(5)	(-, 0, 10, 0, 0; 0)	(3, 20, 30, -)	(300)	(3)	(800)	(0/16/65535)	(20)
big house	0, 0, 150, 0, 0; 45	10	0, 0, 30, 0, 0; 0	1, 5, 20, 10	400	6	1000	_	30
	(-, 0, 150, 0, 0; 50)	(10)	(-, 0, 20, 0, 0; 0)	(3, 20, 30, -)	(300)	(6)	(1200)	(0/20/40000)	(20)
dock	0, 0, 200, 0, 0; 150	0	0, 0, 40, 0, 0; 0	3, 20, 35, 10	500	5	1500	_	30
	(-, 0, 200, 0, 0; 150)	(5)	(-, 30, 30, 0, 0; 0)	(3, 20, 35, -)	(500)	(1)	(2500)	(-)	(40)
market	0, 0, 300, 0, 0; 120	0	0, 0, 60, 0, 0; 0	1, 5, 20, 10	500	10	1500	_	30
	(-, 0, 300, 0, 0; 150)	(0)	(-, 25, 25, 25, 25; 0)	(1, 5, 20, -)	(500)	(-)	(1500)	(0/40/30000)	(32)
rotary mill	0, 0, 200, 0, 100; 100	0	0, 0, 40, 0, 20; 0	3, 20, 30, 10	300	6	1500	_	30
	(-, 0, 200, 0, 100; 100)	(2)	(-, 50, 25, 0, 15; 0)	(3, 20, 30, -)	(500)	(-)	(2000)	(0/32/40000)	(40)

# 3.3 Military

class	building costs	pop.	$\mathbf{loot}$	armour	capture	garrison	$\mathbf{health}$	territory	vision
	(s, f, w, i, s; time)	bonus	(s, f, w, i, s; exp)	(c, h, p, t)	$\mathbf{points}$	capacity		(root/radius/weight)	range
blacksmith	0, 0, 200, 100, 0; 150	0	0, 0, 40, 20, 0; 0	3, 20, 40, 30	500	8	2000	0/40/40000	40
	(-, 0, 200, 0, 0; 200)	(0)	(-, 0, 50, 25, 0; 0)	(3, 20, 35, -)	(500)	(1)	(2000)	(0/38/30000)	(32)
embassy	0, 0, 200, 0, 0; 150	0	0, 0, 40, 0, 0; 0	3, 20, 40, 30	1000	6	2000	0/40/40000	40
	(-, 0, 100, 200, 100; 150)	(0)	(-, 0, 10, 0, 20; 0)	(3, 20, 30, -)	(500)	(6)	(2000)	(0/25/40000)	(24)
kennel	0, 50, 50, 0, 0; 50	0	0, 10, 10, 0, 0; 0	3, 20, 40, 30	250	5	500	0/20/40000	40
	(-, 0, 50, 200, 50; 50)	(0)	(-, 0, 10, 10, 0; 0)	(5, 10, 40, -)	(500)	(5)	(500)	(0/20/30000)	(40)
barracks	0, 100, 300, 0, 0; 150	0	0, 20, 60, 0, 0; 0	3, 20, 40, 30	1000	15	2000	0/40/40000	40
	(-, 0, 300, 0, 0; 150)	(0)	(-, 0, 30, 0, 10; 0)	(3, 20, 35, -)	(500)	(10)	(2000)	(0/50/40000)	(32)
practice range	0, 100, 300, 0, 0; 150	0	0, 20, 60, 0, 0; 0	3, 20, 40, 30	1000	10	2000	0/40/40000	40
	(-, 0, 300, 0, 0; 150)	(0)	(-, 0, 30, 0, 10; 0)	(3, 20, 35, -)	(500)	(10)	(2000)	(0/50/40000)	(32)
camel stables	0, 100, 300, 0, 0; 150	0	0, 20, 60, 0, 0; 0	3, 20, 40, 30	1000	10	2000	0/40/40000	40
	(-, 0, 0, 0, 200; 150)	(0)	(-, 0, 30, 0, 10; 0)	(3, 20, 35, -)	(500)	(10)	(2000)	(0/50/40000)	(32)
cavalry stables	0, 100, 300, 0, 0; 150	0	0, 20, 60, 0, 0; 0	3, 20, 40, 30	1000	10	2000	0/40/40000	40
	(-, 0, 0, 0, 200; 150)	(0)	(-, 0, 30, 0, 10; 0)	(3, 20, 35, -)	(500)	(10)	(2000)	(0/50/40000)	(32)
chariot stables	0, 100, 300, 0, 0; 200	0	0, 20, 60, 0, 0; 0	3, 20, 40, 30	1000	5	2000	0/40/40000	40
	(-, 0, 0, 0, 200; 150)	(0)	(-, 0, 30, 0, 10; 0)	(3, 20, 35, -)	(500)	(10)	(2000)	(0/50/40000)	(32)
elephant stables	0, 100, 300, 0, 0; 250	0	0, 20, 60, 0, 0; 0	3, 20, 40, 30	1000	5	2000	0/40/40000	40
	(-, 0, 0, 200, 200; 300)	(0)	(-, 0, 0, 50, 50; 0)	(3, 20, 35, -)	(500)	(5)	(3000)	(0/38/40000)	(40)
workshop	0, 100, 300, 0, 0; 200	0	0, 20, 60, 0, 0; 0	3, 20, 40, 30	1000	2	2000	0/40/40000	40
	(-, 0, 300, 0, 0; 200)	(0)	(-, 0, 75, 0, 0; 0)	(3, 20, 35, -)	(500)	(2)	(2000)	(0/38/40000)	(40)
shipyard	0, 100, 300, 0, 0; 150	0	0, 20, 60, 0, 0; 0	3, 20, 40, 30	1000	5	2000	_	40
(dock)	(-, 0, 200, 0, 0; 150)	(5)	(-, 30, 30, 0, 0; 0)	(3, 20, 35, -)	(500)	(1)	(2500)	(-)	(40)
harbour	0, 100, 400, 100, 200; 500	0	0, 20, 80, 20, 40; 0	3, 20, 40, 30	2500	5	5000	1/200/25000	100
(super dock)	(-, 0, 300, 0, 200; 500)	(10)	(-, 0, 75, 50, 50; 0)	(3,20,35,-)	(2000)	(5)	(5000)	(1/200/25000)	(100)

#### 3.4 Defensive

class	building costs	pop.	loot	armour	capture	garrison	health	territory	vision
- outpost	(s, f, w, i, s; time) 0, 0, 75, 0, 0; 30	bonus ()	(s, f, w, i, s; exp) 0, 0, 15, 0, 0; 0	(c, h, p, t) 1, 5, 20, 10	points 500	capacity	750	(root/radius/weight)	$\frac{\mathbf{range}}{80}$
outpost	(-, 0, 80, 0, 0; 40)	(0)	(-, 0, 8, 0, 0; 100)	(1, 5, 20, 10)	(500)	(1)	(800)	_ (–)	(80)
small tower	0, 50, 100, 0, 50; 90	0	0, 10, 20, 0, 0; 0	(1, 3, 20, -) (2, 20, 30, 25)	500	3	1000	0/16/30000	80
(sentry tower)	(-, 0, 100, 0, 0; 40)	(0)	(-, 0, 20, 0, 0; 100)	(1, 20, 25, -)	(500)	(3)	(500)	(0/16/30000)	(80)
_	0, 50, 150, 0, 100; 150	0	0, 10, 30, 0, 20; 0	(1, 20, 25, -) 3, 25, 30, 30	500	5	1500	0/32/40000	80
large tower	1 1 1 1 1 1	-		1 ' ' '	(500)			, ,	
(defense tower)	(-, 0, 100, 0, 100; 150)	(0)	(-, 0, 0, 0, 20; 100)	(3, 25, 30, -)	( )	(5)	(1000)	(0/32/40000)	(80)
fortress	0, 200, 400, 100, 800; 600	0	0, 40, 80, 20, 160; 0	3, 25, 30, 30	4000	30	6000	1/100/40000	100
1. 1 1	(-, 0, 0, 0, 1000; 500)	(10)	(-, 0, 0, 0, 65; 100)	(6, 25, 40, -)	(4000)	(20)	(4200)	(0/100/40000)	(80)
palisade short	0, 0, 10, 0, 0; 5	0	0, 0, 2, 0, 0; 0	2, 4, 25, 10	500	_	400	_	10
	(-, 0, 4, 0, 0; 5)	(0)	(-, 0, 10, 0, 0; 100)	(2, 4, 25, -)	(1200)	(-)	(250)	(-)	(20)
palisade medium	0, 0, 20, 0, 0; 10	0	0, 0, 4, 0, 0; 0	2, 4, 25, 10	500	_	600	_	10
	(-, 0, 7, 0, 0; 8)	(0)	(-, 0, 10, 0, 0; 100)	(2, 4, 25, -)	(1200)	(-)	(500)	(-)	(20)
palisade long	0, 0, 30, 0, 0; 15	0	0, 0, 6, 0, 0; 0	2, 4, 25, 10	500	_	800	_	10
	(-, 0, 13, 0, 0; 11)	(0)	(-, 0, 10, 0, 0; 100)	(2, 4, 25, -)	(1200)	(-)	(750)	(-)	(20)
palisade gate	0, 0, +20, 0, 0; +5	0	0, 0, 10, 0, 0; 0	2, 4, 25, 10	500	_	1000	_	10
	(-, 0, +20, 0, 0; +5)	(0)	(-, 0, 10, 0, 0; 100)	(2, 4, 25, -)	(1200)	(-)	(637)	(-)	(20)
palisade tower	0, 0, 15, 0, 0; 12	0	0, 0, 3, 0, 0; 0	2, 4, 25, 10	500	-	500	_	10
	(-, 0, 5, 0, 0; 7)	(0)	(-, 0, 10, 0, 0; 100)	(2, 4, 25, -)	(1200)	(-)	(750)	(-)	(20)
siege wall short	0, 0, 30, 0, 0; 15	0	0, 0, 6, 0, 0; 0	5, 15, 35, 25	1000	1	1000	_	20
	(-, 0, 20, 0, 0; 15)	(0)	(-, 0, 15, 0, 0; 100)	(5, 15, 35, -)	(1200)	(-)	(750)	(-)	(20)
siege wall medium	0, 0, 60, 0, 0; 30	0	0, 0, 12, 0, 0; 0	5, 15, 35, 25	1000	3	1500	_	20
	(-, 0, 40, 0, 0; 30)	(0)	(-, 0, 15, 0, 0; 100)	(5, 15, 35, -)	(1200)	(3)	(1500)	(-)	(20)
siege wall long	0, 0, 90, 0, 0; 45	0	0, 0, 18, 0, 0; 0	5, 15, 35, 25	1000	5	2000	_	20
	(-, 0, 60, 0, 0; 45)	(0)	(-, 0, 15, 0, 0; 100)	(5, 15, 35, -)	(1200)	(5)	(2250)	(-)	(20)
siege wall gate	0, 0, +30, +30, 0; +15	0	0, 0, 24, 6, 0; 0	5, 15, 35, 25	1000	_	1700	_	20
	(-, 0, +80, 0, 0; +10)	(0)	(-, 0, 15, 0, 0; 100)	(5, 15, 35, -)	(1200)	(-)	(1912)	(-)	(20)
siege wall tower	0, 0, 120, 0, 0; 60	0	0, 0, 24, 0, 0; 0	5, 15, 35, 25	1000	2	2500	_	(60)
	(-, 0, 100, 0, 0; 80)	(0)	(-, 0, 15, 0, 0; 100)	(5, 15, 35, -)	(1200)	(2)	(3000)	(-)	(60)
city wall short	0, 0, 15, 0, 45; 30	0	0, 0, 3, 0, 9; 0	3, 25, 30, 30	1500	1	2000	0/20/65535	30
v	(-, 0, 0, 0, 15; 15)	(0)	(-, 0, 0, 0, 15; 100)	(3, 25, 30, -)	(1200)	(-)	(1000)	(0/20/65535)	(20)
city wall medium	0, 0, 30, 0, 90; 45	0	0, 0, 6, 0, 18; 0	3, 25, 30, 30	1500	3	3000	0/20/65535	30
	(-, 0, 0, 0, 22; 30)	(0)	(-, 0, 0, 0, 15; 100)	(3, 25, 30, -)	(1200)	(3)	(2000)	(0/20/65535)	(20)
city wall long	0, 0, 45, 0, 135; 60	0	0, 0, 9, 0, 27; 0	3, 25, 30, 30	1500	5	4000	0/20/65535	30
**/	(-, 0, 0, 0, 28; 45)	(0)	(-, 0, 0, 0, 15; 100)	(3, 25, 30, -)	(1200)	(5)	(3000)	(0/20/65535)	(20)
city wall gate	0, 0, +30, +30, 0; +15	0	0, 0, 18, 6, 36; 0	3, 25, 30, 30	1500	-	3400	0/20/65535	30
, 5	(-, 0, 0, 0, +60; +10)	(0)	(-, 0, 0, 0, 15; 100)	(3, 25, 30, -)	(1200)	(-)	(2550)	(0/20/65535)	(20)
city wall tower	0, 0, 60, 0, 180; 90	0	0, 0, 12, 0, 36; 0	3, 25, 30, 30	1500	2	5000	0/20/65535	$\frac{(20)}{(60)}$
city wan tower	(-, 0, 0, 0, 90; 80)	(0)	(-, 0, 0, 0, 15; 100)	(3, 25, 30, -)	(1200)	(2)	(4000)	(0/20/65535)	(60)
	( , 0, 0, 0, 30, 60)	(0)	( , 0, 0, 0, 10, 100)	(0, 20, 30, -)	(1200)	(2)	(4000)	(0/20/0000)	(00)

### 4 Technologies and auras

#### 4.1 Structure auras

- {Centre} **Settlement Core** (75 m): workers +20% build rate, -20% resource gather base speed; structures +100% ungarrisoned base capture points regeneration.
- {Library} Power of Knowledge (global): technologies -10% resource costs and research time per library owned.
- {Iberian Pillar} Religious Fervour (50 m): soldiers +20% melee and ranged attack damage.
- {Mauryan Pillar}] Edicts of Ashoka (75 m): traders +20% movement speed.
- {Rotary Mill} Farming Bonus (60 m): workers +20% farming gather rate.
- {Temple} Medical Treatment (40 m): humans +1.0 health regeneration rate.
- {Theatre} Hellenization (global): units -5% training time per theatre owned.
- {Wonder} Blessing of the Gods (50 m): humans +2.0 health regeneration rate.
- {Wonder} Monumental Awe (100 m): enemy units -5% movement speed.
- {Wonder} **Symbol of Greatness** (global): structures +10% territory influence radius per wonder owned.
- {Wonder} Glorious Expansion (global): +10% maximum population limit per wonder owned (requires "Glorious Expansion" technology).

#### 4.2 Unit auras

- {Camel} **Stench** (15 m): enemy cavalry -20% attack damage and capture strength.
- {Chariot} Noise (12 m): enemy infantry -15% attack damage and capture strength.
- {Elephant} Intimidation (10 m): enemy soldiers -10% attack damage and capture strength.
- {Merchant} Convoy (20 m): own naval traders +2.0 pierce armour.
- {Trader} Caravan (10 m): own land traders +2.0 pierce armour.

#### 4.3 Class bonuses

- Champion: +200% silver cost, +100% training time, +50% health, +2.0 armour levels, +100% capture attack strength, +100% melee and ranged attack damage.
- Veteran: +50% silver cost, +50% training time, +20% health, +1.0 armour levels, +50% capture attack strength, +50% melee and ranged attack damage.
- Mercenary: +100% silver cost, 0 other resource costs, -50% training time, +10% health, +15% capture attack strength, +15% melee and ranged attack damage.
- Cataphract: +20% silver cost, +2.0 armour levels, -5% movement speed.
- Fanatic: -3.0 armour levels, +15% melee attack damage, +30% movement speed.
- Balearic: -10% health, +5% ranged attack damage, -10% reload time, -10% spread, +5% movement speed.
- Cretan: -20% ranged attack spread.
- Libyan: -5% health, +5% ranged attack damage, -5% reload time, +5% movement speed.
- Numidian: -10% health, +5% ranged attack damage, -10% reload time, -10% spread, +5% movement speed.
- Rhodian: -20% ranged attack spread.

#### 4.4 Civilization bonuses

All bonuses and penalties from the default distribution have been removed.

- Briton Architecture (Britons): structures -20% build time, -10% health; centres 0 stone cost, +100% wood cost; small towers 0 stone cost; temples 0 stone cost, +200% wood cost.
- Briton Chariots (Britons): chariots -15% training time.
- Druidism (Britons, Gauls): healers +2.0 armour levels
- Gallic Cavalry (Gauls): melee cavalry -15% training time.
- Gaulish Architecture (Gauls): structures -20% build time, -10% health; centres 0 stone cost, +100% wood cost; fortresses -50% stone cost, +50% wood cost; temples 0 stone cost, +200% wood cost.
- Greek Galleys (Greeks): warships +5% movement speed.
- Greek Architecture (Greeks): temples +25% health.
- Egyptian Architecture (Ptolemies): economic structures -75% wood cost, +100% build time; fortresses +25% build time, +10% health.
- Egyptian Medicine (Ptolemies): healers -20% healing time.
- Indian Architecture (Mauryas): centres 0 stone cost, +100% wood cost; city walls and temples 0 stone cost, +200% wood cost, -30% build time, -20% health.
- Indian Elephants (Mauryas): elephants −15% training time.
- **Iberian Architecture** (Iberians): large towers +20% stone and wood costs, +10% build time, +100% garrison capacity, +30% health.
- Kushite Architecture (Kushites): economic structures -75% wood cost, +100% build time; fortresses +25% build time, +10% health.
- Macedonian Architecture (Macedonians): temples +25% health.
- Macedonian Engineers (Macedonians): siege engines -15% construction time.
- Near Eastern Archers (Persians, Seleucids): archers +20% ranged attack range.
- Persian Architecture (Persians): economic structures +20% health.
- Persian Archers (Persians): archers -15% training time.
- Priesthood of Amun (Kuhites): healers +3.0 healing range.
- Punic Architecture (Carthaginians): city walls +20% stone cost, +20% build time, +30% health; fortresses +10% stone cost, +10% build time, +20% health; markets -50% wood cost.
- Punic Merchants (Carthaginians): traders -15% training time.
- Roman Architecture (Romans): city walls +10% health; military structures -10% build time.
- Roman Engineers (Romans): stone-throwers +25% wood cost, +20% health, +25% ranged attack crush damage.
- Syrian Architecture (Seleucids): temples +25% health.

#### 4.5 Team bonuses

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