

*0 A.D. is Actually Before Christ*  
<https://github.com/0abc/0abc-a23.git>

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

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# 1 Introduction

**0abc** 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).

**0abc** 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/0abc/0abc-a23.git` to get the repository directly or download it as a zip via `https://github.com/0abc/0abc-a22/archive/master.zip`
- Place it in your `/0ad/mods/` folder:
  - GNU/Linux (e.g. Fedora) typically: `~/.local/share/0ad/mods/`
  - Macintosh/Apple OS X typically: `~/Library/Application\ Support/0ad/mods/`
  - Microsoft Windows typically: `~\Documents\My Games\0ad\mods\`
- Launch 0 A.D., click “Settings” and “Mod Selection”
- Select **0abc**, 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

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

### 2.2 Counters

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

## 2.3 Unit types

### 2.3.1 Infantry

class	pop. size	training costs (s, f, w, i, s; time)	exp. loot/up	vision range	walk speed	health	armour (c, h, p, t)	damage (c, h, p, t)	rate (ms)	range (m)	other stats
infantry	1	30, 30, 0, 0, 0; 30	60/-	80	11.5	60	3, 1, 2, 1	0, 0, 8, 0	2000	70+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	10.5	60	2, 1, 2, 1	0, 0, 12, 0	2000	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, 10, 5	2000	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	10, 0, 0, 0	2000	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, 20, 0	2000	30+1	
javelineer	(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	6, 12, 0, 0	2000	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	15, 0, 0, 0	2000	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	5, 10, 0, 0	2000	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, 15, 0, 0	2000	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, 12, 0, 4	2000	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, 8, 0, 8	2000	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, 15	2000	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, 6, 6	2000	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)	

### 2.3.2 Camelry

class	pop. size	training costs (s, f, w, i, s; time)	exp. loot/up	vision range	walk speed	health	armour (c, h, p, t)	damage (c, h, p, t)	rate (ms)	range (m)	other stats
camel	2	35, 70, 0, 0, 0; 45	90/-	90	18.0	105	1, 1, 1, 1	0, 0, 13, 0	2000	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, 22, 0	2000	30+3	
javelineer	(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, 17	2000	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. size	training costs (s, f, w, i, s; time)	exp. loot/up	vision range	walk speed	health	armour (c, h, p, t)	damage (c, h, p, t)	rate (ms)	range (m)	other stats
cavalry	2	40, 80, 0, 0, 0; 60	120/-	85	15.0	120	1, 1, 1, 1	0, 0, 14, 0	2000	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, 12, 6	2000	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, 24, 0	2000	30+2	
javelineer	(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	18, 0, 0, 0	2000	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	6, 12, 0, 0	2000	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, 18, 0, 0	2000	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, 9, 0, 9	2000	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, 18	2000	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	4, 0, 0, 16	2000	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

class	pop. size	training costs (s, f, w, i, s; time)	exp. loot/up	vision range	walk speed	health	armour (c, h, p, t)	damage (c, h, p, t)	rate (ms)	range (m)	other stats
biga	4	90, 160, 0, 0, 0; 75	180/-	85	16.0	240	5, 5, 5, 5	0, 0, 15, 0	2000	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, 25, 0	2000	30+2	arrow count: 1-2 (-)
javelineer	(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	0, 0, 16, 0	2000	60+2	
archer	(1)	(-, 250, 100, 100, 0; 30)	(150/-)	(96)	(20.25)	(240)	(20, 7, 5, -)	(0, 0, 14, -)	(1000)	(76)	arrow count: 1-2 (-)
quadriga	6	120, 240, 0, 0, 0; 75	240/-	85	17.0	360	6, 6, 6, 6	5, 10, 0, 10	2000	8	
scythed	(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. size	training costs (s, f, w, i, s; time)	exp. loot/up	vision range	walk speed	health	armour (c, h, p, t)	damage (c, h, p, t)	rate (ms)	range (m)	other stats
Indian	6	330, 330, 0, 0, 0; 90	360/-	95	12.0	660	12, 3, 9, 6	110, 0, 0, 0	2000	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	90, 0, 0, 0	2000	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. size	training costs (s, f, w, i, s; time)	exp. loot/up	vision range	walk speed	health	armour (c, h, p, t)	damage (c, h, p, t)	rate (ms)	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)	1, 1, 2, 1 (1, 1, 2, -)	0, 5, 5, 0 (0, 7, 2, -)	1000 (1000)	2 (3)	

2.3.7 Siege engines

class	pop. size	construction costs (s, f, w, i, s; time)	exp. loot/up	vision range packed/unpacked	walk speed	health	armour (c, h, p, t)	damage (c, h, p, t)	rate (ms)	range (m)	other 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 battering ram	4 (3)	0, 100, 250, 50, 0; 40 (-, 0, 350, 200, 0; 30)	-/- (60/-)	40 (80)	6.0 (8.1)	400 (400)	5, 1, 50, 2 (5, 1, 50, -)	80, 0, 0, 0 (150, 0, 0, -)	2000 (1500)	7 (6.5)	garrison capacity: 6 (10)
large battering ram	4 (3)	0, 100, 350, 50, 0; 50 (-, 0, 350, 200, 0; 30)	-/- (60/-)	40 (80)	6.0 (8.1)	500 (400)	5, 1, 50, 2 (5, 1, 50, -)	80, 0, 0, 0 (150, 0, 0, -)	2000 (1500)	9 (6.5)	garrison capacity: 10 (10)
siege tower	6 (3)	0, 200, 500, 300, 0; 150 (-, 0, 500, 300, 0; 60)	-/- (60/-)	100 (80)	4.0 (6.3)	750 (500)	5, 1, 50, 2 (5, 1, 50, -)	3, 0, 9, 0 (2.5, 0, 12, -)	2000 (2000)	10-60+15 (10-55+10)	garrison capacity: 20 (20) arrow count: 2-12 (0-10)

### 2.3.8 Ships

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

### 2.3.9 Support

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



### 2.3.10 Fauna

class	food amount	max gatherers	exp. loot	vision range	walk speed	health	armour (c, h, p, t)	damage (c, h, p, t)	rate (ms)	range (m)	behaviour
chicken	15	1	–	10	1.5	3	1, 1, 1, 1	–	–	–	domestic
peacock	25	1	–	10	2.5	5	1, 1, 1, 1	–	–	–	domestic
goat	75	2	–	10	4.5	15	1, 1, 1, 1	–	–	–	domestic
sheep	100	2	–	10	4.0	20	1, 1, 1, 1	–	–	–	domestic
pig	150	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	2	–	10	6.0	40	1, 1, 1, 1	–	–	–	skittish
horse	200	3	–	10	8.0	60	1, 1, 1, 1	–	–	–	skittish
pony	160	2	–	10	6.4	45	1, 1, 1, 1	–	–	–	skittish
dromedary camel	250	4	–	10	7.0	80	1, 1, 1, 1	–	–	–	skittish
deer	130	2	–	10	3.0	65	1, 1, 2, 1	–	–	–	skittish
gazelle	60	2	–	10	12.5	30	1, 1, 1, 1	–	–	–	skittish
giraffe	350	6	–	10	6.0	150	1, 1, 1, 1	–	–	–	skittish
” infant	140	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	88, 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	80, 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	72, 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

	CART	GAUL	KUSH	MACE	MAUR	PTOL	ROME	SELE
woman	V	V	V	V	V	V	V	V
trader	V	V	V	V	V	V	V	V
healer	T	T	T	T	T	T	T	T
elephant	–	–	–	–	V	–	–	–
slave	C	C	C	C	C	C	C	C

**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.

### 2.4.2 Infantry

	CART	GAUL	KUSH	MACE	MAUR	PTOL	ROME	SELE
infantry lead-slinger	–	–	–	–	–	–	–	–
" " mercenary	–	–	–	T	–	T	–	–
" " champion	–	–	–	–	–	–	–	–
infantry archer	V	–	V	–	V	–	–	T
" " mercenary	–	–	–	T	–	T	–	–
" " champion	–	–	C	–	–	–	–	–
infantry crossbowman	–	–	–	–	–	–	–	–
" " mercenary	–	–	–	–	–	–	–	–
" " champion	–	–	–	C	–	–	–	–
infantry stone-slinger	–	T	–	–	–	V	–	–
" " mercenary	T	–	–	–	–	–	–	–
" " champion	–	–	–	–	–	–	–	–
infantry javelineer	–	V	–	V	–	–	V	V
" " mercenary	T	–	T	–	–	T	–	–
" " champion	–	–	–	–	–	–	–	–
infantry axe-thrower	–	–	–	–	–	–	–	–
" " mercenary	–	–	–	–	–	–	–	–
" " champion	–	–	–	–	–	–	–	–
infantry maceman	–	–	–	–	–	–	–	–
" " mercenary	–	–	T	–	–	–	–	–
" " champion	–	–	–	–	C	–	–	–
infantry axeman	–	–	–	–	–	–	–	–
" " mercenary	–	–	–	–	–	–	–	–
" " champion	–	–	C	–	–	–	–	–
infantry sabreman	–	–	–	–	T	–	V	–
" " mercenary	–	–	–	–	–	–	–	–
" " champion	–	–	C	–	–	–	–	–
infantry longswordsman	–	–	–	–	–	–	–	–
" " mercenary	–	–	–	–	–	–	–	–
" " champion	–	–	–	–	–	–	–	–
infantry swordsman	–	V	T	–	–	–	T	–
" " mercenary	T	–	–	–	–	T	–	–
" " champion	–	C	–	–	–	–	C	–
infantry spearman	V	T	V	–	V	–	T	V
" " mercenary	T	–	–	T	–	T	–	–
" " champion	C	–	–	C	–	–	–	–
infantry pikeman	–	–	T	V	–	V	–	T
" " mercenary	–	–	–	–	–	M	–	–
" " champion	–	–	–	–	–	C	–	C

**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.

### 2.4.3 Cavalry

	CART	GAUL	KUSH	MACE	MAUR	PTOL	ROME	SELE
cavalry archer	–	–	–	–	–	–	–	–
" " mercenary	–	–	–	–	–	–	–	T
" " champion	–	–	–	–	–	–	–	–
cavalry crossbowman	–	–	–	–	–	–	–	–
" " mercenary	–	–	–	–	–	–	–	–
" " champion	–	–	–	–	–	–	–	–
cavalry javelineer	V	T	V	T	V	–	T	V
" " mercenary	T	–	–	–	–	T	–	–
" " champion	–	–	–	–	–	–	–	–
cavalry maceman	–	–	–	–	–	–	–	–
" " mercenary	–	–	–	–	–	–	–	–
" " champion	–	–	–	–	–	–	–	–
cavalry axeman	–	–	–	–	–	–	–	–
" " mercenary	–	–	–	–	–	–	–	–
" " champion	–	–	–	–	–	–	–	–
cavalry sabreman	–	–	–	–	–	–	–	–
" " mercenary	T	–	–	–	–	–	–	–
" " champion	–	–	–	–	–	–	–	–
cavalry swordsman	–	V	–	–	T	–	–	–
" " mercenary	T	–	–	–	–	–	–	–
" " champion	–	–	–	–	–	–	–	–
cavalry spearman	–	–	T	–	–	T	V	–
" " mercenary	T	–	–	–	–	–	–	–
" " champion	–	C	C	–	–	C	–	–
cavalry lancer	–	–	–	V	–	–	–	T
" " mercenary	–	–	–	–	–	–	–	–
" " champion	C	–	–	C	–	–	–	C

**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

	CART	GAUL	KUSH	MACE	MAUR	PTOL	ROME	SELE
camel archer	–	–	–	–	–	–	–	–
" " mercenary	–	–	–	–	–	–	–	T
" " champion	–	–	–	–	–	–	–	–
camel javelineer	–	–	–	–	–	–	–	–
" " mercenary	–	–	T	–	–	–	–	–
" " champion	–	–	–	–	–	–	–	–
camel spearman	–	–	–	–	–	–	–	–
" " mercenary	–	–	–	–	–	–	–	–
" " champion	–	–	–	–	–	–	–	–
biga archer	–	–	–	–	–	–	–	–
" " mercenary	–	–	–	–	–	–	–	–
" " champion	–	–	–	–	C	–	–	–
biga javelineer	–	–	–	–	–	–	–	–
" " mercenary	–	–	–	–	–	–	–	–
" " champion	–	–	–	–	–	–	–	–
quadriga scythed	–	–	–	–	–	–	–	–
" " mercenary	–	–	–	–	–	–	–	–
" " champion	–	–	–	–	–	–	–	C
Indian elephant	–	–	–	–	T	–	–	–
" " mercenary	–	–	–	C*	–	–	–	–
" " champion	–	–	–	–	C	–	–	C
North African elephant	–	–	C	–	–	–	–	–
" " mercenary	–	–	–	–	–	–	–	–
" " champion	C	–	–	–	–	C	–	–
war dog	–	–	–	–	–	–	–	–

**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.

### 2.4.5 Siege engines

	CART	GAUL	KUSH	MACE	MAUR	PTOL	ROME	SELE
scorpio	–	–	–	–	–	–	C	–
polybolos	–	–	–	–	–	C	–	–
oxybeles	C	–	–	C	–	–	–	–
stone-thrower	C	–	–	C	C	C	C	C
small battering ram	T	T	–	–	T	–	–	–
large battering ram	–	–	T	T	–	T	T	T
siege tower	–	–	–	C	–	C	–	–

**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.

### 2.4.6 Ships

	CART	GAUL	KUSH	MACE	MAUR	PTOL	ROME	SELE
fishing boat	V	V	V	V	V	V	V	V
merchant ship	T	T	T	T	T	T	T	T
fireship	–	–	–	–	–	–	–	–
war barge	–	T	–	–	T	–	–	–
war barge huge	–	–	–	–	C	–	–	–
triaconter	–	–	–	–	–	–	–	–
penteconter	–	–	–	T	–	–	T	T
trireme	T	–	T	T	–	T	T	T
quadrireme	C	–	–	–	–	C	C	–
quinquereme	C	–	–	–	–	C	C	–

**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 Base

class	building costs (s, f, w, i, s; time)	pop. bonus	loot (s, f, i, w, s; exp)	armour (c, h, p, t)	capture points	garrison capacity	health	territory (root/radius/weight)	vision range
centre, crannog (civil center)	0, 300, 300, 0, 0; 500 (-, 0, 500, 500, 500; 500)	15 (20)	0, 0, 0, 0, 0; 250 (-, 0, 200, 200, 200; 200)	4, 9, 36, 16 (3, 25, 35, -)	2500 (2500)	20 (20)	3000 (3000)	1/150/10000 (1/140/10000)	100 (90)
small house	0, 0, 75, 0, 0; 25 (-, 0, 75, 0, 0; 30)	5 (5)	0, 0, 0, 0, 0; 0 (-, 0, 10, 0, 0; 0)	4, 9, 36, 16 (3, 20, 30, -)	200 (300)	3 (3)	600 (800)	- (0/16/65535)	30 (20)
big house	0, 0, 150, 0, 0; 45 (-, 0, 150, 0, 0; 50)	10 (10)	0, 0, 0, 0, 0; 0 (-, 0, 20, 0, 0; 0)	4, 9, 36, 16 (3, 20, 30, -)	400 (300)	6 (6)	1000 (1200)	- (0/20/40000)	30 (20)
naval base (super dock)	0, 100, 400, 100, 200; 500 (-, 0, 300, 0, 200; 500)	0 (10)	0, 0, 0, 0, 0; 0 (-, 0, 75, 50, 50; 0)	4, 9, 36, 16 (3, 20, 35, -)	2500 (2000)	5 (5)	5000 (5000)	1/200/25000 (1/200/25000)	100 (100)

#### 3.2 Civic

class	building costs (s, f, w, i, s; time)	pop. bonus	loot (s, f, i, w, s; exp)	armour (c, h, p, t)	capture points	garrison capacity	health	territory (root/radius/weight)	vision range
pillar (monument)	0, 0, 75, 0, 75; 75 (-, 0, 100, 0, 100; 120)	0 (0)	0, 0, 0, 0, 0; 0 (-, 0, 0, 25, 25; 0)	4, 16, 36, 25 (3, 20, 30, -)	- (-)	- (-)	500 (1200)	- (1/38/40000)	1 (60)
(pillar)	(-, 0, 100, 0, 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, 300; 200)	0 (5)	0, 0, 0, 0, 0; 0 (-, 0, 0, 50, 50; 0)	4, 16, 36, 25 (3, 20, 30, -)	1000 (500)	20 (20)	2000 (2000)	0/50/50000 (0/40/30000)	50 (40)
library	0, 0, 200, 200, 600; 400 (-, 0, 200, 0, 200; 200)	0 (0)	0, 0, 0, 0, 0; 0 (-, 0, 0, 50, 50; 0)	4, 16, 36, 25 (3, 20, 30, -)	1500 (500)	30 (5)	3000 (2000)	0/50/50000 (0/50/40000)	50 (40)
lighthouse	0, 0, 250, 250, 750; 500 (-, 0, 200, 0, 200; 200)	0 (0)	0, 0, 0, 0, 0; 0 (-, 0, 0, 50, 50; 0)	4, 16, 36, 25 (3, 20, 30, -)	2000 (500)	40 (5)	4000 (2000)	- (0/0/40000)	300 (180)
theatre	0, 0, 300, 300, 900; 600 (-, 0, 500, 0, 500; 500)	0 (0)	0, 0, 0, 0, 0; 0 (-, 0, 0, 125, 125; 0)	4, 16, 36, 25 (3, 20, 30, -)	2500 (500)	50 (5)	5000 (2000)	0/100/50000 (0/100/40000)	50 (40)
wonder	0, 0, 1000, 1000, 3000; 1200 (-, 1000, 1000, 1000, 1000; 1000)	0 (0)	0, 0, 0, 0, 0; 0 (-, 300, 300, 300, 300; 300)	4, 16, 36, 25 (3, 15, 25, -)	3000 (2000)	50 (30)	6000 (5000)	1/100/65535 (1/100/65535)	100 (72)

### 3.3 Defensive

class	building costs (s, f, w, i, s; time)	pop. bonus	loot (s, f, w, i, s; exp)	armour (c, h, p, t)	capture points	garrison capacity	health	territory (root/radius/weight)	vision range
outpost	0, 0, 75, 0, 0; 30 (-, 0, 80, 0, 0; 40)	0 (0)	0, 0, 0, 0, 0; 0 (-, 0, 8, 0, 0; 100)	4, 9, 36, 16 (1, 5, 20, -)	500 (500)	1 (1)	750 (800)	- (-)	80 (80)
small tower (sentry tower)	0, 50, 100, 0, 50; 90 (-, 0, 100, 0, 0; 40)	0 (0)	0, 0, 0, 0, 0; 0 (-, 0, 20, 0, 0; 100)	4, 9, 36, 16 (1, 20, 25, -)	500 (500)	3 (3)	1000 (500)	0/16/30000 (0/16/30000)	80 (80)
large tower (defense tower)	0, 50, 150, 0, 100; 150 (-, 0, 100, 0, 100; 150)	0 (0)	0, 0, 0, 0, 0; 0 (-, 0, 0, 0, 20; 100)	4, 9, 36, 16 (3, 25, 30, -)	500 (500)	5 (5)	1500 (1000)	0/32/40000 (0/32/40000)	80 (80)
fortress	0, 200, 400, 100, 800; 600 (-, 0, 0, 0, 1000; 500)	0 (10)	0, 0, 0, 0, 0; 0 (-, 0, 0, 0, 65; 100)	9, 25, 36, 36 (6, 25, 40, -)	4000 (4000)	30 (20)	6000 (4200)	1/100/40000 (0/100/40000)	100 (80)
palisade short	0, 0, 10, 0, 0; 5 (-, 0, 4, 0, 0; 5)	0 (0)	0, 0, 0, 0, 0; 0 (-, 0, 10, 0, 0; 100)	4, 9, 36, 16 (2, 4, 25, -)	- (1200)	- (-)	400 (250)	- (-)	1 (20)
palisade medium	0, 0, 20, 0, 0; 10 (-, 0, 7, 0, 0; 8)	0 (0)	0, 0, 0, 0, 0; 0 (-, 0, 10, 0, 0; 100)	4, 9, 36, 16 (2, 4, 25, -)	- (1200)	- (-)	600 (500)	- (-)	1 (20)
palisade long	0, 0, 30, 0, 0; 15 (-, 0, 13, 0, 0; 11)	0 (0)	0, 0, 0, 0, 0; 0 (-, 0, 10, 0, 0; 100)	4, 9, 36, 16 (2, 4, 25, -)	- (1200)	- (-)	800 (750)	- (-)	1 (20)
palisade gate	0, 0, +20, 0, 0; +5 (-, 0, +20, 0, 0; +5)	0 (0)	0, 0, 0, 0, 0; 0 (-, 0, 10, 0, 0; 100)	4, 9, 36, 16 (2, 4, 25, -)	- (1200)	- (-)	1000 (637)	- (-)	10 (20)
palisade tower	0, 0, 15, 0, 0; 12 (-, 0, 5, 0, 0; 7)	0 (0)	0, 0, 0, 0, 0; 0 (-, 0, 10, 0, 0; 100)	4, 9, 36, 16 (2, 4, 25, -)	- (1200)	- (-)	500 (750)	- (-)	1 (20)
siege wall short	0, 0, 30, 0, 0; 15 (-, 0, 20, 0, 0; 15)	0 (0)	0, 0, 0, 0, 0; 0 (-, 0, 15, 0, 0; 100)	4, 16, 36, 25 (5, 15, 35, -)	- (1200)	1 (-)	1000 (750)	- (-)	1 (20)
siege wall medium	0, 0, 60, 0, 0; 30 (-, 0, 40, 0, 0; 30)	0 (0)	0, 0, 0, 0, 0; 0 (-, 0, 15, 0, 0; 100)	4, 16, 36, 25 (5, 15, 35, -)	- (1200)	3 (3)	1500 (1500)	- (-)	1 (20)
siege wall long	0, 0, 90, 0, 0; 45 (-, 0, 60, 0, 0; 45)	0 (0)	0, 0, 0, 0, 0; 0 (-, 0, 15, 0, 0; 100)	4, 16, 36, 25 (5, 15, 35, -)	- (1200)	5 (5)	2000 (2250)	- (-)	1 (20)
siege wall gate	0, 0, +30, +30, 0; 28 (-, 0, +80, 0, 0; 45)	0 (0)	0, 0, 0, 0, 0; 0 (-, 0, 15, 0, 0; 100)	4, 16, 36, 25 (5, 15, 35, -)	- (1200)	- (-)	1250 (1912)	- (-)	20 (20)
siege wall tower	0, 0, 120, 0, 0; 60 (-, 0, 100, 0, 0; 80)	0 (0)	0, 0, 0, 0, 0; 0 (-, 0, 15, 0, 0; 100)	4, 16, 36, 25 (5, 15, 35, -)	- (1200)	2 (2)	2500 (3000)	- (-)	1 (60)
city wall short	0, 0, 20, 0, 60; 40 (-, 0, 0, 0, 15; 15)	0 (0)	0, 0, 0, 0, 0; 0 (-, 0, 0, 0, 15; 100)	9, 25, 49, 36 (3, 25, 30, -)	- (1200)	1 (-)	1800 (1000)	- (0/20/65535)	1 (20)
city wall medium	0, 0, 30, 0, 90; 60 (-, 0, 0, 0, 22; 30)	0 (0)	0, 0, 0, 0, 0; 0 (-, 0, 0, 0, 15; 100)	9, 25, 49, 36 (3, 25, 30, -)	- (1200)	3 (3)	2700 (2000)	- (0/20/65535)	1 (20)
city wall long	0, 0, 40, 0, 120; 80 (-, 0, 0, 0, 28; 45)	0 (0)	0, 0, 0, 0, 0; 0 (-, 0, 0, 0, 15; 100)	9, 25, 49, 36 (3, 25, 30, -)	- (1200)	5 (5)	3600 (3000)	- (0/20/65535)	1 (20)
city wall gate	0, 0, +40, +40, 0; 50 (-, 0, 0, 0, +60; 45)	0 (0)	0, 0, 0, 0, 0; 0 (-, 0, 0, 0, 15; 100)	9, 25, 49, 36 (3, 25, 30, -)	- (1200)	- (-)	2250 (2550)	- (0/20/65535)	30 (20)
city wall tower	0, 0, 50, 0, 150; 100 (-, 0, 0, 0, 90; 80)	0 (0)	0, 0, 0, 0, 0; 0 (-, 0, 0, 0, 15; 100)	9, 25, 49, 36 (3, 25, 30, -)	- (1200)	2 (2)	4500 (4000)	- (0/20/65535)	1 (60)

### 3.4 Economic

class	building costs (s, f, w, i, s; time)	pop. bonus	loot (s, f, w, i, s; exp)	armour (c, h, p, t)	capture points	garrison capacity	health	territory (root/radius/weight)	vision range
corral	0, 0, 100, 0, 0; 30	0	0, 0, 0, 0, 0; 0	1, 4, 36, 9	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, 0, 0, 0; 0	1, 4, 36, 9	300	4	700	–	30
	(–, 0, 100, 0, 0; 40)	(0)	(–, 0, 10, 0, 0; 0)	(1, 5, 20, –)	(300)	(–)	(800)	(0/20/30000)	(20)
forge (blacksmith)	0, 0, 200, 100, 0; 150	0	0, 0, 0, 0, 0; 0	1, 4, 36, 9	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)
farmstead	0, 0, 100, 0, 0; 50	0	0, 0, 0, 0, 0; 0	1, 4, 36, 9	300	5	900	–	30
	(–, 0, 100, 0, 0; 45)	(0)	(–, 100, 10, 0, 0; 0)	(1, 5, 20, –)	(300)	(–)	(900)	(0/20/30000)	(20)
dock	0, 0, 200, 0, 0; 150	0	0, 0, 0, 0, 0; 0	1, 4, 36, 9	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, 0, 0, 0; 0	1, 4, 36, 9	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, 0, 0, 0; 0	1, 4, 36, 9	300	6	1500	–	30
	(–, 0, 200, 0, 100; 100)	(2)	(–, 50, 25, 0, 15; 0)	(3, 20, 30, –)	(500)	(–)	(2000)	(0/32/40000)	(40)

### 3.5 Military

class	building costs (s, f, w, i, s; time)	pop. bonus	loot (s, f, w, i, s; exp)	armour (c, h, p, t)	capture points	garrison capacity	health	territory (root/radius/weight)	vision range
arsenal (workshop)	0, 100, 300, 0, 0; 200	0	0, 0, 0, 0, 0; 0	4, 9, 36, 16	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)
barracks	0, 100, 300, 0, 0; 150	0	0, 0, 0, 0, 0; 0	4, 9, 36, 16	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)
cavalry stable	0, 100, 300, 0, 0; 150	0	0, 0, 0, 0, 0; 0	4, 9, 36, 16	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)
elephant stable	0, 100, 300, 0, 0; 250	0	0, 0, 0, 0, 0; 0	4, 9, 36, 16	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)
hall (embassy)	0, 0, 200, 0, 0; 150	0	0, 0, 0, 0, 0; 0	4, 9, 36, 16	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)
practice range	0, 100, 300, 0, 0; 150	0	0, 0, 0, 0, 0; 0	4, 9, 36, 16	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)
shipyard (dock)	0, 100, 300, 0, 0; 150	0	0, 0, 0, 0, 0; 0	4, 9, 36, 16	1000	5	2000	–	40
	(–, 0, 200, 0, 0; 150)	(5)	(–, 30, 30, 0, 0; 0)	(3, 20, 35, –)	(500)	(1)	(2500)	(–)	(40)

### 3.6 Resource

class	building costs (s, f, w, i, s; time)	pop. bonus	loot (s, f, w, i, s; exp)	armour (c, h, p, t)	capture points	garrison capacity	health	territory (root/radius/weight)	vision range
field	0, 0, 100, 0, 0; 60	0	0, 0, 0, 0, 0; 0	4, 1, 36, 16	100	–	300	–	1
	(–, 0, 100, 0, 0; 50)	(0)	(–, 50, 0, 0, 0; 0)	(5, 15, 40, –)	(500)	(–)	(250)	(–)	(0)

## 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, +50% melee and ranged attack damage.
- **Veteran**: +50% silver cost, +50% training time, +20% health, +1.0 armour levels, +50% capture attack strength, +30% melee and ranged attack damage.
- **Mercenary**: +100% silver cost, 0 other resource costs, −50% training time, +10% health, +25% 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.



## 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): 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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