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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`https://wildfiregames.com/forum/index.php?/topic/22779-0abc-mod/`

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Contents

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	0.5× vs Elephantry	–	–
infantry archers	0.5× 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× vs Elephantry	–	–
camel javelinists	–	–	–
camel spearmen	0.5× vs Elephantry	–	–
cavalry archers	0.5× vs Elephantry	–	–
cavalry crossbowmen	–	–	–
cavalry javelinists	–	–	–
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	0.5× vs Elephantry	–	Ships, Siege, Structure
biga archers	0.5× vs Elephantry	–	Ships, Siege, Structure
biga javelinists	–	–	Ships, Siege, Structure
quadriga archers	0.5× vs Elephantry	–	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, m, 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 lead-slinger	1 (1)	30, 30, 0, 0, 0; 75 (−, 50, 20, 0, 30; 10)	60/− (100/100)	80 (80)	11.5 (10.8)	60 (50)	3, 1, 2, 1 (10, 1, 1, −)	0, 0, 4, 0 (1, 0, 9.5, −)	1000 (1250)	80+1 (48)	
infantry longbowman	1 (1)	30, 30, 0, 0, 0; 55 (−, 50, 50, 0, 0; 10)	60/− (100/100)	80 (80)	10.0 (9.9)	60 (50)	1, 1, 1, 1 (10, 1, 1, −)	0, 0, 5, 0 (0, 0, 6, −)	1000 (1000)	70+1 (72)	
infantry archer	1 (1)	30, 30, 0, 0, 0; 60 (−, 50, 50, 0, 0; 10)	60/− (100/100)	80 (80)	10.5 (9.9)	60 (50)	2, 1, 2, 1 (10, 1, 1, −)	0, 0, 6, 0 (0, 0, 6, −)	1000 (1000)	60+1 (72)	
infantry crossbowman	1 (1)	30, 30, 0, 0, 0; 50 (−, 50, 50, 0, 0; 10)	60/− (100/100)	80 (80)	9.0 (9.9)	60 (50)	1, 1, 1, 1 (10, 1, 1, −)	0, 0, 6, 3 (0, 0, 6, −)	1000 (1000)	50+1 (72)	
infantry stone-slinger	1 (1)	30, 30, 0, 0, 10; 70 (−, 50, 20, 0, 30; 10)	60/− (100/100)	80 (80)	11.5 (10.8)	60 (50)	1, 1, 1, 1 (10, 1, 1, −)	8, 0, 0, 0 (1, 0, 9.5, −)	1000 (1250)	40+1 (48)	
infantry javelinist	1 (1)	30, 30, 0, 0, 0; 45 (−, 50, 50, 0, 0; 10)	60/− (100/100)	80 (80)	11.0 (12.6)	60 (50)	2, 1, 3, 1 (10, 1, 1, −)	0, 0, 12, 0 (0, 0, 16, −)	1000 (1250)	30+1 (24)	
infantry axe-thrower	1 (1)	30, 30, 0, 0, 0; 40 (−, 50, 50, 0, 0; 10)	60/− (100/100)	80 (80)	10.5 (12.6)	60 (50)	3, 3, 3, 3 (10, 1, 1, −)	3, 6, 0, 0 (0, 0, 16, −)	1000 (1250)	20+1 (24)	
infantry maceman	1 (1)	30, 30, 0, 0, 0; 30 (−, 50, 40, 10, 0; 10)	60/− (100/100)	80 (80)	10.0 (9.45)	90 (100)	4, 3, 4, 5 (15, 5, 5, −)	7, 0, 0, 0 (0, 5.5, 0, −)	1000 (750)	3 (3.5)	
infantry axeman	1 (1)	30, 30, 0, 0, 0; 30 (−, 50, 40, 10, 0; 10)	60/− (100/100)	80 (80)	10.5 (9.45)	90 (100)	4, 4, 4, 4 (15, 5, 5, −)	2.5, 5, 0, 0 (0, 5.5, 0, −)	1000 (750)	3 (3.5)	
infantry sabreman	1 (1)	30, 30, 0, 0, 0; 30 (−, 50, 40, 10, 0; 10)	60/− (100/100)	80 (80)	10.5 (9.45)	90 (100)	5, 4, 4, 3 (15, 5, 5, −)	0, 7, 0, 0 (0, 5.5, 0, −)	1000 (750)	3 (3.5)	
infantry longswordsman	1 (1)	30, 30, 0, 0, 0; 30 (−, 50, 40, 10, 0; 10)	60/− (100/100)	80 (80)	9.5 (9.45)	90 (100)	3, 5, 3, 5 (15, 5, 5, −)	0, 6, 0, 2 (0, 5.5, 0, −)	1000 (750)	3 (3.5)	
infantry swordsman	1 (1)	30, 30, 0, 0, 0; 30 (−, 50, 40, 10, 0; 10)	60/− (100/100)	80 (80)	10.0 (9.45)	90 (100)	4, 4, 4, 4 (15, 5, 5, −)	0, 4, 0, 4 (0, 5.5, 0, −)	1000 (750)	3 (3.5)	
infantry spearman	1 (1)	30, 30, 0, 0, 0; 30 (−, 50, 50, 0, 0; 10)	60/− (100/100)	80 (80)	10.0 (8.55)	90 (100)	3, 5, 4, 4 (15, 5, 5, −)	0, 0, 0, 7 (0, 3.0, 2.5, −)	1000 (1000)	3 (4.5)	
infantry pikeman	1 (1)	30, 30, 0, 0, 0; 30 (−, 50, 50, 0, 0; 10)	60/− (100/100)	80 (80)	9.0 (7.2)	90 (100)	5, 3, 5, 3 (15, 10, 10, −)	0, 0, 3, 3 (0, 1.0, 3.0, −)	1000 (2000)	6 (7.0)	

2.3.2 Camelry

class	pop. size	training costs (s, f, w, m, 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 archer	2 (1)	35, 70, 0, 0, 0; 75 (−, 100, 50, 0, 0; 15)	90/− (130/150)	90 (92)	18.0 (17.55)	110 (100)	1, 1, 1, 1 (15, 3, 1, −)	0, 0, 6, 0 (0, 0, 7, −)	1000 (1000)	60+3 (72)	
camel javelinist	2 (1)	35, 70, 0, 0, 0; 60 (−, 100, 50, 0, 0; 15)	90/− (130/150)	90 (92)	18.0 (17.55)	110 (100)	1, 1, 1, 1 (15, 3, 1, −)	0, 0, 15, 0 (0, 0, 18, −)	1000 (1250)	30+3 (28)	
camel spearman	2 (1)	35, 70, 0, 0, 0; 45 (−, 100, 50, 0, 0; 15)	90/− (130/150)	90 (92)	18.0 (19.305)	135 (160)	2, 2, 2, 2 (15, 4, 3, −)	0, 0, 0, 9 (0, 6, 5, −)	1000 (2000)	4 (4.5)	

2.3.3 Cavalry

class	pop. size	training costs (s, f, w, m, 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 longbowman	2 (1)	40, 80, 0, 0, 0; 85 (−, 100, 50, 0, 0; 15)	120/− (130/150)	85 (92)	15.0 (17.55)	120 (100)	1, 1, 1, 1 (15, 3, 1, −)	0, 0, 6, 0 (0, 0, 7, −)	1000 (1000)	70+2 (72)	
cavalry archer	2 (1)	40, 80, 0, 0, 0; 90 (−, 100, 50, 0, 0; 15)	120/− (130/150)	85 (92)	15.0 (17.55)	120 (100)	1, 1, 1, 1 (15, 3, 1, −)	0, 0, 7, 0 (0, 0, 7, −)	1000 (1000)	60+2 (72)	
cavalry crossbowman	2 (1)	40, 80, 0, 0, 0; 80 (−, 100, 50, 0, 0; 15)	120/− (130/150)	85 (92)	15.0 (17.55)	120 (100)	1, 1, 1, 1 (15, 3, 1, −)	0, 0, 6, 3 (0, 0, 7, −)	1000 (1000)	50+2 (72)	
cavalry javelinist	2 (1)	40, 80, 0, 0, 0; 75 (−, 100, 50, 0, 0; 15)	120/− (130/150)	85 (92)	15.0 (17.55)	120 (100)	1, 1, 1, 1 (15, 3, 1, −)	0, 0, 15, 0 (0, 0, 18, −)	1000 (1250)	30+2 (28)	
cavalry maceman	2 (1)	40, 80, 0, 0, 0; 60 (−, 100, 30, 20, 0; 15)	120/− (130/150)	85 (92)	15.0 (21.06)	150 (160)	3, 3, 3, 3 (15, 4, 2, −)	9, 0, 0, 0 (0, 6.5, 0, −)	1000 (750)	4 (3.5)	
cavalry axeman	2 (1)	40, 80, 0, 0, 0; 60 (−, 100, 30, 20, 0; 15)	120/− (130/150)	85 (92)	15.0 (21.06)	150 (160)	3, 3, 3, 3 (15, 4, 2, −)	3, 6, 0, 0 (0, 6.5, 0, −)	1000 (750)	4 (3.5)	
cavalry sabreman	2 (1)	40, 80, 0, 0, 0; 60 (−, 100, 30, 20, 0; 15)	120/− (130/150)	85 (92)	15.0 (21.06)	150 (160)	3, 3, 3, 3 (15, 4, 2, −)	0, 9, 0, 0 (0, 6.5, 0, −)	1000 (750)	4 (3.5)	
cavalry swordsman	2 (1)	40, 80, 0, 0, 0; 60 (−, 100, 30, 20, 0; 15)	120/− (130/150)	85 (92)	15.0 (21.06)	150 (160)	3, 3, 3, 3 (15, 4, 2, −)	0, 5, 0, 5 (0, 6.5, 0, −)	1000 (750)	4 (3.5)	
cavalry spearman	2 (1)	40, 80, 0, 0, 0; 60 (−, 100, 50, 0, 0; 15)	120/− (130/150)	85 (92)	15.0 (19.305)	150 (160)	3, 3, 3, 3 (15, 4, 3, −)	0, 0, 0, 10 (0, 6, 5, −)	1000 (2000)	4 (4.5)	
cavalry lancer	2 (1)	40, 80, 0, 0, 0; 60 (−, 100, 50, 0, 0; 15)	120/− (130/150)	85 (92)	15.0 (19.305)	150 (160)	3, 3, 3, 3 (15, 4, 3, −)	2, 0, 0, 8 (0, 6, 5, −)	1000 (2000)	4 (4.5)	

2.3.4 Chariotry

class	pop. size	training costs (s, f, w, m, 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 longbowman	4 (1)	90, 160, 0, 0, 0; 75 (−, 250, 100, 100, 0; 30)	180/− (150/−)	85 (96)	16.0 (20.25)	240 (240)	5, 5, 5, 5 (20, 7, 5, −)	0, 0, 7, 0 (0, 0, 14, −)	1000 (1000)	70+2 (76)	arrow count: 1–2 (−)
biga archer	4 (1)	90, 160, 0, 0, 0; 75 (−, 250, 100, 100, 0; 30)	180/− (150/−)	85 (96)	16.0 (20.25)	240 (240)	5, 5, 5, 5 (20, 7, 5, −)	0, 0, 8, 0 (0, 0, 14, −)	1000 (1000)	60+2 (76)	arrow count: 1–2 (−)
biga javelinist	4 (1)	90, 160, 0, 0, 0; 75 (−, 250, 100, 100, 0; 30)	180/− (150/−)	85 (96)	16.0 (20.25)	240 (240)	5, 5, 5, 5 (20, 7, 5, −)	0, 0, 21, 0 (0, 0, 36, −)	1000 (1250)	30+2 (32)	arrow count: 1–2 (−)
quadriga scythed	6 (1)	100, 250, 0, 0, 0; 75 (−, 250, 100, 100, 0; 30)	240/− (150/−)	85 (96)	17.0 (20.25)	360 (240)	6, 6, 6, 6 (20, 7, 5, −)	5, 10, 0, 10 / 0, 0, 8, 0 (0, 0, 14, −)	1000 / 1000 (1000)	8 / 60+2 (76)	[melee] [ranged] arrow count: 1–2 (−)

2.3.5 Elephantry

class	pop. size	training costs (s, f, w, m, 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 elephant	6 (3)	330, 330, 0, 0, 0; 90 (−, 250, 0, 250, 0; 30)	360/− (150/−)	95 (100)	12.0 (8.45)	660 (750)	20, 5, 15, 10 (25, 10, 10, −)	66, 0, 0, 0 (150, 20, 0, −)	1000 (1500)	6 (8)	
North African elephant	6 (3)	270, 270, 0, 0, 0; 90 (−, 250, 0, 250, 0; 30)	360/− (150/−)	95 (100)	12.0 (8.45)	540 (750)	20, 5, 15, 10 (25, 10, 10, −)	54, 0, 0, 0 (150, 20, 0, −)	1000 (1500)	6 (8)	

2.3.6 Dogs

class	pop. size	training costs (s, f, w, m, 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, m, 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 bolt-shooter	2 (2)	0, 50, 50, 100, 0; 60 (–, 0, 250, 250, 0; 20)	–/– (200/–)	100 (120)	8.0 (8.1)	100 (200)	5, 1, 50, 2 (5, 1, 50, –)	0, 0, 40, 20 (25, 0, 150, –)	4000 (4000)	10–90 (26–80)	un/pack (ms): 4000 (10000) l. splash: – (5c+0h+75p)
polybolos bolt-shooter	4 (2)	0, 100, 150, 150, 0; 90 (–, 0, 250, 250, 0; 20)	–/– (200/–)	100 (120)	8.0 (8.1)	200 (200)	5, 1, 50, 2 (5, 1, 50, –)	0, 0, 40, 20 (25, 0, 150, –)	2000 (4000)	15–95 (26–80)	un/pack (ms): 8000 (10000) l. splash: – (5c+0h+75p)
oxybeles bolt-shooter	4 (2)	0, 100, 150, 150, 0; 80 (–, 0, 250, 250, 0; 20)	–/– (200/–)	100 (120)	8.0 (8.1)	200 (200)	5, 1, 50, 2 (5, 1, 50, –)	0, 0, 100, 50 (25, 0, 150, –)	5000 (4000)	20–100 (26–80)	un/pack (ms): 8000 (10000) l. splash: – (5c+0h+75p)
stone-thrower	4 (2)	0, 100, 200, 100, 0; 100 (–, 0, 400, 0, 250; 25)	–/– (300/–)	100 (120)	7.0 (7.2)	250 (250)	5, 1, 50, 2 (5, 1, 50, –)	120, 0, 0, 0 (100, 0, 10, –)	5000 (5000)	30–90 (26–80)	un/pack (ms): 12000 (10000) 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)

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2.3.8 Ships

class	pop. size	construction costs (s, f, w, m, 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, 10 (0, 10, 0, −)	1000 (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, 6, 0 (0, 0, 35, −)	1000 (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, 6, 0 (0, 0, 35, −)	1000 (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, 6, 0 (0, 0, 35, −)	1000 (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, 6, 0 (0, 0, 35, −)	1000 (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, 6, 0 (0, 0, 35, −)	1000 (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, 6, 0 (0, 0, 35, −)	1000 (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, 6, 0 (100, 0, 10, −)	1000 (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, m, 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)	30, 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, −)	1000 (1000)	15 (3)	build rate: − (1.0)
slave	1 (0)	50, 0, 0, 0, 0; 60 (−, 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)	50, 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; 60 (−, 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; 60 (−, 150, 0, 0, 0; 20)	−/− (50/−)	60 (50)	5.4 (5.4)	450 (300)	9, 3, 7, 5 (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	100, 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	100, 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	100, 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	T	T	T	T	T	T	T	T	T	T	T	T
elephant	–	–	–	–	–	–	–	V	–	–	–	–
slave	–	–	–	–	–	–	–	–	–	–	–	–

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

	BRIT	CART	GAUL	GREE	IBER	KUSH	MACE	MAUR	PERS	PTOL	ROME	SELE
infantry lead-slinger	–	–	–	–	–	–	–	–	–	–	–	–
” ” mercenary	–	T	–	T	–	–	T	–	–	T	–	–
” ” champion	–	–	–	–	–	–	–	–	–	–	–	–
infantry longbowman	–	–	–	–	–	V	–	V	–	–	–	–
” ” mercenary	–	–	–	–	–	–	–	–	–	–	–	–
” ” champion	–	–	–	–	–	–	–	–	–	–	–	–
infantry archer	–	V	–	–	–	–	–	–	V	–	–	T
” ” mercenary	–	–	–	T	–	–	T	–	–	T	–	–
” ” champion	–	–	–	–	–	C	–	–	–	–	–	–
infantry crossbowman	–	–	–	–	–	–	–	–	–	–	–	–
” ” mercenary	–	–	–	–	–	–	–	–	–	–	–	–
” ” champion	–	–	–	–	–	–	C	–	–	–	–	–
infantry stone-slinger	V	–	T	–	T	–	–	–	–	V	–	–
” ” mercenary	–	–	–	–	–	–	–	–	–	–	–	–
” ” champion	–	–	–	–	–	–	–	–	–	–	–	–
infantry javelinist	T	–	V	V	V	–	V	–	T	–	V	V
” ” mercenary	–	T	–	T	–	T	–	–	–	T	–	–
” ” champion	–	–	–	–	–	–	–	–	–	–	–	–
infantry axe-thrower	–	–	–	–	–	–	–	–	–	–	–	–
” ” mercenary	–	–	–	–	–	–	–	–	–	–	–	–
” ” champion	–	–	–	–	–	–	–	–	–	–	–	–
infantry maceman	–	–	–	–	–	–	–	–	–	–	–	–
” ” mercenary	–	–	–	–	–	T	–	–	–	–	–	–
” ” champion	–	–	–	–	–	–	–	C	–	–	–	–
infantry axeman	–	–	–	–	–	–	–	–	–	–	–	–
” ” mercenary	–	–	–	–	–	–	–	–	–	–	–	–
” ” champion	–	–	–	–	–	C	–	–	–	–	–	–
infantry sabreman	–	–	–	–	V	–	–	T	–	–	V	–
” ” mercenary	–	–	–	–	–	–	–	–	–	–	–	–
” ” champion	–	–	–	–	–	C	–	–	–	–	–	–
infantry longswordsman	–	–	–	–	–	–	–	–	–	–	–	–
” ” mercenary	–	–	–	–	–	–	–	–	–	–	–	–
” ” champion	C*	–	–	–	–	–	–	–	–	–	–	–
infantry swordsman	T	–	V	–	–	T	–	–	–	–	T	–
” ” mercenary	–	T	–	–	–	–	–	–	–	T	–	–
” ” champion	–	–	C*	–	–	–	–	–	–	–	C	C
infantry spearman	V	V	T	V	T	V	–	V	V	–	T	V
” ” mercenary	–	T	–	T	–	–	T	–	–	T	–	–
” ” champion	–	C	–	C	–	–	C	–	C	–	–	–
infantry pikeman	–	–	–	–	–	T	V	–	–	V	–	T
” ” mercenary	–	–	–	–	–	–	–	–	–	–	–	–
” ” 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

	BRIT	CART	GAUL	GREE	IBER	KUSH	MACE	MAUR	PERS	PTOL	ROME	SELE
cavalry longbowman	–	–	–	–	–	–	–	–	–	–	–	–
” ” mercenary	–	–	–	–	–	–	–	–	–	–	–	–
” ” champion	–	–	–	–	–	–	–	–	–	–	–	–
cavalry archer	–	–	–	–	–	–	–	–	T	–	–	–
” ” mercenary	–	–	–	–	–	–	–	–	–	–	–	T
” ” champion	–	–	–	–	–	–	–	–	C	–	–	–
cavalry crossbowman	–	–	–	–	–	–	–	–	–	–	–	–
” ” mercenary	–	–	–	–	–	–	–	–	–	–	–	–
” ” champion	–	–	–	–	–	–	–	–	–	–	–	–
cavalry javelinist	V	V	T	V	V	V	T	V	V	–	T	V
” ” mercenary	–	T	–	–	–	–	–	–	–	T	–	–
” ” champion	–	–	–	–	C	–	–	–	–	–	–	–
cavalry maceman	–	–	–	–	–	–	–	–	–	–	–	–
” ” mercenary	–	–	–	–	–	–	–	–	–	–	–	–
” ” champion	–	–	–	–	–	–	–	–	–	–	–	–
cavalry axeman	–	–	–	–	–	–	–	–	T	–	–	–
” ” mercenary	–	–	–	–	–	–	–	–	–	–	–	–
” ” champion	–	–	–	–	–	–	–	–	–	–	–	–
cavalry sabreman	–	–	–	T	–	–	–	–	–	–	–	–
” ” mercenary	–	T	–	–	–	–	–	–	–	–	–	–
” ” champion	–	–	–	–	–	–	–	–	–	–	–	–
cavalry swordsman	T	–	V	–	–	–	–	T	–	–	–	–
” ” mercenary	–	T	–	–	–	–	–	–	–	–	–	–
” ” champion	–	–	–	–	–	–	–	–	–	–	–	–
cavalry spearman	–	–	–	–	T	T	–	–	T	T	V	–
” ” mercenary	–	T	–	–	–	–	–	–	–	–	–	–
” ” champion	–	–	C	–	–	C	–	–	–	C	–	–
cavalry lancer	–	–	–	–	–	–	V	–	–	–	–	T
” ” mercenary	–	–	–	–	–	–	–	–	–	–	–	–
” ” champion	–	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.

2.4.4 Exotic units

	BRIT	CART	GAUL	GREE	IBER	KUSH	MACE	MAUR	PERS	PTOL	ROME	SELE
camel archer	–	–	–	–	–	–	–	–	–	–	–	–
” ” mercenary	–	–	–	–	–	–	–	–	T	T	–	T
” ” champion	–	–	–	–	–	–	–	–	–	–	–	–
camel javelinist	–	–	–	–	–	–	–	–	–	–	–	–
” ” mercenary	–	–	–	–	–	T	–	–	–	–	–	–
” ” champion	–	–	–	–	–	–	–	–	–	–	–	–
camel spearman	–	–	–	–	–	–	–	–	–	–	–	–
” ” mercenary	–	–	–	–	–	–	–	–	–	–	–	–
” ” champion	–	–	–	–	–	–	–	–	–	–	–	–
biga longbowman	–	–	–	–	–	–	–	–	–	–	–	–
” ” mercenary	–	–	–	–	–	–	–	–	–	–	–	–
” ” champion	–	–	–	–	–	–	–	C	–	–	–	–
biga archer	–	–	–	–	–	–	–	–	–	–	–	–
” ” mercenary	–	–	–	–	–	–	–	–	–	–	–	–
” ” champion	–	–	–	–	–	–	–	–	–	–	–	–
biga javelinist	–	–	–	–	–	–	–	–	–	–	–	–
” ” mercenary	–	–	–	–	–	–	–	–	–	–	–	–
” ” champion	C	–	–	–	–	–	–	–	–	–	–	–
quadriga scythed	–	–	–	–	–	–	–	–	–	–	–	–
” ” mercenary	–	–	–	–	–	–	–	–	–	–	–	–
” ” champion	–	–	–	–	–	–	–	–	C	–	–	C
Indian elephant	–	–	–	–	–	–	–	T	–	–	–	–
” ” mercenary	–	–	–	–	–	–	C*	–	C	–	–	–
” ” champion	–	–	–	–	–	–	–	C	–	–	–	C
North African elephant	–	–	–	–	–	C	–	–	–	–	–	–
” ” mercenary	–	–	–	–	–	–	–	–	–	–	–	–
” ” champion	–	C	–	–	–	–	–	–	–	C	–	–
war dog	V	–	–	–	–	–	–	–	–	–	–	–

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

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

2.4.6 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	T	T	T	T	T	T	T	T	T	T	T	T
fireship	–	–	–	–	T	–	–	–	–	–	–	–
war barge	T	–	T	–	T	–	–	T	–	–	–	–
war barge huge	–	–	–	–	–	–	–	C	–	–	–	–
triaconter	–	–	–	–	–	–	–	–	–	–	–	–
pentaconter	–	–	–	T	–	–	T	–	T	–	T	T
trireme	–	T	–	T	–	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 Civic

class	building costs (s, f, w, m, s; time)	pop. bonus	loot (s, f, w, m, 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)	60, 60, 60, 0, 0; 250 (−, 0, 200, 200, 200; 200)	3, 25, 35, 30 (3, 25, 35, −)	2500 (2500)	20 (20)	3000 (3000)	1/150/10000 (1/140/10000)	100 (90)
pillar (monument) (pillar)	0, 0, 0, 100, 100; 100 (−, 0, 0, 100, 100; 120) (−, 0, 0, 100, 100; 80)	0 (0) (0)	0, 0, 0, 20, 20; 0 (−, 0, 0, 25, 25; 0) (−, 0, 0, 25, 25; 0)	5, 25, 35, 30 (3, 20, 30, −) (3, 20, 30, −)	− (−) (−)	− (−) (−)	1000 (1200) (1000)	1/50/50000 (1/38/40000) (1/38/40000)	50 (60) (40)
temple	0, 0, 100, 100, 300; 300 (−, 0, 0, 0, 300; 200)	0 (5)	0, 0, 20, 20, 60; 0 (−, 0, 0, 50, 50; 0)	5, 25, 35, 30 (3, 20, 30, −)	1000 (500)	20 (20)	2000 (2000)	0/50/50000 (0/40/30000)	50 (40)
library	0, 0, 150, 150, 450; 400 (−, 0, 0, 200, 200; 200)	0 (0)	0, 0, 30, 30, 90; 0 (−, 0, 0, 50, 50; 0)	5, 25, 35, 30 (3, 20, 30, −)	1000 (500)	25 (5)	2500 (2000)	0/50/50000 (0/50/40000)	50 (40)
lighthouse	0, 0, 200, 200, 600; 500 (−, 0, 0, 200, 200; 200)	0 (0)	0, 0, 40, 40, 120; 0 (−, 0, 0, 50, 50; 0)	5, 25, 35, 30 (3, 20, 30, −)	1000 (500)	(5) (5)	3000 (2000)	− (0/0/40000)	200 (180)
theatre	0, 0, 300, 300, 900; 600 (−, 0, 0, 500, 500; 500)	0 (0)	0, 0, 60, 60, 180; 0 (−, 0, 0, 125, 125; 0)	5, 25, 35, 30 (3, 20, 30, −)	1000 (500)	(5) (5)	4000 (2000)	0/100/50000 (0/100/40000)	50 (40)
wonder	0, 0, 1000, 1000, 2000; 1200 (−, 1000, 1000, 1000, 1000; 1000)	0 (0)	400, 200, 200, 200, 200; 0 (−, 300, 300, 300, 300; 300)	5, 25, 35, 30 (3, 15, 25, −)	3000 (2000)	50 (30)	6000 (5000)	1/100/65535 (1/100/65535)	50 (72)

3.2 Economic

class	building costs (s, f, w, m, s; time)	pop. bonus	loot (s, f, w, m, 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, 100, 0, 0; 50)	0 (0)	0, 0, 20, 0, 0; 0 (−, 50, 0, 0, 0; 0)	5, 15, 40, 25 (5, 15, 40, −)	100 (500)	− (−)	300 (250)	− (−)	0 (0)
corral	0, 0, 100, 0, 0; 30 (−, 0, 100, 0, 0; 50)	0 (0)	0, 0, 20, 0, 0; 0 (−, 25, 10, 0, 0; 0)	1, 5, 20, 10 (1, 1, 20, −)	300 (500)	3 (−)	500 (500)	− (0/20/30000)	30 (20)
storehouse	0, 0, 100, 0, 0; 40 (−, 0, 100, 0, 0; 40)	0 (0)	0, 0, 20, 0, 0; 0 (−, 0, 10, 0, 0; 0)	1, 5, 20, 10 (1, 5, 20, −)	300 (300)	4 (−)	700 (800)	− (0/20/30000)	30 (20)
farmstead	0, 0, 100, 0, 0; 50 (−, 0, 100, 0, 0; 45)	0 (0)	0, 0, 20, 0, 0; 0 (−, 100, 10, 0, 0; 0)	1, 5, 20, 10 (1, 5, 20, −)	300 (300)	5 (−)	900 (900)	− (0/20/30000)	30 (20)
small house	0, 0, 75, 0, 0; 25 (−, 0, 75, 0, 0; 30)	5 (5)	0, 0, 15, 0, 0; 0 (−, 0, 10, 0, 0; 0)	1, 5, 20, 10 (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, 30, 0, 0; 0 (−, 0, 20, 0, 0; 0)	1, 5, 20, 10 (3, 20, 30, −)	400 (300)	6 (6)	1000 (1200)	− (0/20/40000)	30 (20)
dock	0, 0, 200, 0, 0; 150 (−, 0, 200, 0, 0; 150)	0 (5)	0, 0, 40, 0, 0; 0 (−, 30, 30, 0, 0; 0)	3, 20, 35, 10 (3, 20, 35, −)	500 (500)	5 (1)	1500 (2500)	− (−)	30 (40)
market	0, 0, 300, 0, 0; 120 (−, 0, 300, 0, 0; 150)	0 (0)	0, 0, 60, 0, 0; 0 (−, 25, 25, 25, 25; 0)	1, 5, 20, 10 (1, 5, 20, −)	500 (500)	10 (−)	1500 (1500)	− (0/40/30000)	30 (32)
rotary mill	0, 0, 200, 0, 100; 100 (−, 0, 200, 0, 100; 100)	0 (2)	0, 0, 40, 0, 20; 0 (−, 50, 25, 0, 15; 0)	3, 20, 30, 10 (3, 20, 30, −)	300 (500)	6 (−)	1500 (2000)	− (0/32/40000)	30 (40)

3.3 Military

class	building costs (s, f, w, m, s; time)	pop. bonus	loot (s, f, w, m, s; exp)	armour (c, h, p, t)	capture points	garrison capacity	health	territory (root/radius/weight)	vision 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 (s, f, w, m, s; time)	pop. bonus	loot (s, f, w, m, 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	0, 0, 15, 0, 0; 0	1, 5, 20, 10	500	1	750	–	80
	(–, 0, 80, 0, 0; 40)	(0)	(–, 0, 8, 0, 0; 100)	(1, 5, 20, –)	(500)	(1)	(800)	(–)	(80)
small tower	0, 50, 100, 0, 50; 90	0	0, 10, 20, 0, 0; 0	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)
large tower	0, 50, 150, 0, 100; 150	0	0, 10, 30, 0, 20; 0	3, 25, 30, 30	500	5	1500	0/32/40000	80
(defense tower)	(–, 0, 100, 0, 100; 150)	(0)	(–, 0, 0, 0, 20; 100)	(3, 25, 30, –)	(500)	(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
	(–, 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
	(–, 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
	(–, 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	(60)
	(–, 0, 0, 0, 90; 80)	(0)	(–, 0, 0, 0, 15; 100)	(3, 25, 30, –)	(1200)	(2)	(4000)	(0/20/65535)	(60)

4 Technologies and auras

4.1 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.

4.2 Class bonuses

- **Champion**: +200% silver cost, +100% training time, +50% health, +2.0 armour levels, +100% capture attack strength, and +100% melee and ranged attack damage.

- **Veteran**: +50% silver cost, +50% training time, +20% health, +1.0 armour levels, +50% capture attack strength, and +50% melee and ranged attack damage.

- **Mercenary**: +100% silver cost, 0 other resource costs, −50% training time, +10% health, +15% capture attack strength, and +15% melee and ranged attack damage.

- **Cataphract**: +20% silver cost, $+2.0z$ armour levels, and −5% movement speed.

- **Fanatic**: −4 armour levels, +15% melee attack damage, and +30% movement speed.

- **Balearic**: −10% health, +5% ranged attack damage, −10% reload time, −10% spread, and +5% movement speed.

- **Cretan**: −20% ranged attack spread.

- **Libyan**: −5% health, +5% ranged attack damage, −5% reload time, and +5% movement speed.

- **Numidian**: −10% health, +5% ranged attack damage, −10% reload time, −10% spread, and +5% movement speed.

- **Rhodian**: −20% ranged attack spread.

4.3 Civilization bonuses

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

- **Celtic Architecture** (Britons, Gauls): all structures −20% build time, −10% health; temples −50% stone cost, +100% wood cost.

- **Greek Architecture** (Greeks, Macedonians, Seleucids): civic structures +20% health.

- **Egyptian Architecture** (Kushites, Ptolemies): economic structures −75% wood cost, +100% build time; military structures −50% wood cost, +50% build time; fortresses +25% build time, +10% health.

- **Indian Architecture** (Mauryas): city walls and temples 0 stone cost, +200% wood cost, −30% build time, −20% health.

- **Indian Training** (Mauryas): elephants −20% training time.

- **Iberian Architecture** (Iberians): centres −10% build time, −5% health; large towers +20% stone and wood costs, +10% build time, +100% garrison capacity, +30% health.

- **Near Eastern Archers** (Persians, Seleucids): archers +20% ranged attack range.

- **Persian Architecture** (Persians): economic structures +20% health.

- **Persian Training** (Persians): archers −20% training time.

- **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 Training** (Carthaginians): traders −20% 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.

4.4 Team bonuses

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