# 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.

All the content is completely open for any use: feel free to download, change, redistribute, or (re)use anything in any way you like; no asking for permission or granting credits is required for incorporating parts or all of it in your own mods (or main distribution). Have fun with it!

#### 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) |       |

#### 6

#### 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<br>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<br>stats |
|------------|-------|---|--|-----------------|---|------------|---|--|----------------|------------------------|----------------|
| war<br>dog | 0 (0) | 0, 30, 0, 0, 0; 15<br>(-, 100, 0, 0, 0; 15) | 15/-<br>(100/100)                        | 30<br>(30)      | 14.0<br>(14.40)                                       | 30<br>(90) | , , ,   | $0, 5, 5, 0 \ (0, 7, 2, -)$  | 1000<br>(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<br>amount | $\max _{	ext{gatherers}}$ | exp. | vision<br>range | walk<br>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)<br>—  | 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)<br>0, 0, 75, 0, 0; 30 | bonus<br>() | (s, f, w, i, s; exp)<br>0, 0, 15, 0, 0; 0 | (c, h, p, t)<br>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)  | _<br>(–)             | (80)                        |
| small tower       | 0, 50, 100, 0, 50; 90                       | 0           | 0, 10, 20, 0, 0; 0                        | (1, 3, 20, -)<br>(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, -)<br>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; military structures -50% wood cost, +50% 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; military structures -50% wood cost, +50% 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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