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

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

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## 1 Introduction

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

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

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### 1.1 Instructions

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

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

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

# 2 Units

# 2.1 Population costs

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

### 2.2 Counters

| unit                    | new penalties  | new bonuses                   | restricted              |
|-------------------------|--|-------------------------------|-------------------------|
| war dogs                | _  | _                             | Ships, Siege, Structure |
| infantry lead-slingers  | _  | _                             | _                       |
| infantry longbowmen     | _  | _                             | _                       |
| infantry archers        | _  | _                             | _                       |
| infantry crossbowmen    | _  | _                             | _                       |
| infantry stone-slingers | _  | _                             | _                       |
| infantry javelineers    | _  | _                             | _                       |
| infantry axe-throwers   | _  | _                             | _                       |
| infantry macemen        | _  | _                             | _                       |
| infantry axemen         | _  | _                             | _                       |
| infantry sabremen       | _  | _                             | _                       |
| infantry longswordsmen  | _  | _                             | _                       |
| infantry swordsmen      | _  | _                             | _                       |
| infantry spearmen       | _  | _                             | _                       |
| infantry pikemen        | _  | _                             | _                       |
| camel archers           | _  | _                             | _                       |
| camel javelineers       | _  | _                             | _                       |
| camel spearmen          | $0.5 \times$ vs Elephantry   | _                             | _                       |
| cavalry archers         | $0.5 \times$ vs Elephantry   | _                             | _                       |
| cavalry crossbowmen     | _  | _                             | _                       |
| cavalry javelineers     | _  | _                             | _                       |
| cavalry macemen         | $0.75 \times \text{vs Chariotry}, 0.5 \times \text{vs Elephantry}$ | _                             | _                       |
| cavalry axemen          | $0.75 \times \text{vs Chariotry}, 0.5 \times \text{vs Elephantry}$ | _                             | _                       |
| cavalry sabremen        | $0.75 \times \text{vs Chariotry}, 0.5 \times \text{vs Elephantry}$ | _                             | _                       |
| cavalry swordsmen       | $0.75 \times \text{vs Chariotry}, 0.5 \times \text{vs Elephantry}$ | _                             | _                       |
| cavalry spearmen        | $0.75 \times \text{vs Chariotry}, 0.5 \times \text{vs Elephantry}$ | _                             | _                       |
| cavalry lancers         | $0.75 \times \text{vs Chariotry}, 0.5 \times \text{vs Elephantry}$ | _                             | _                       |
| biga longbowmen         | _  | _                             | Ships, Siege, Structure |
| biga archers            | _  | _                             | Ships, Siege, Structure |
| biga javelineers        | _  | _                             | Ships, Siege, Structure |
| quadriga archers        | _  | _                             | Ships, Siege, Structure |
| quadriga scythed        | _  | _                             | Ships, Siege, Structure |
| war elephants           | _  | _                             | _                       |
| bolt-shooters           | _  | $1.5 \times$ 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    | 0, 30, 0, 30, 0; 30    | 60/-      | 80     | 11.5             | 60     | 2, 1, 4, 1      | 0, 0, 8, 0       | 2000   | 70+1  |       |
| lead-slinger  | (1)  | (-, 50, 20, 0, 30; 10) | (100/100) | (80)   | (10.8)           | (50)   | (10, 1, 1, -)   | (1, 0, 9.5, -)   | (1250) | (48)  |       |
| infantry      | 1    | 0, 30, 0, 30, 0; 30    | 60/-      | 80     | 10.5             | 60     | 2, 2, 2, 2      | 0, 0, 12, 0      | 2000   | 60+1  |       |
| archer        | (1)  | (-, 50, 50, 0, 0; 10)  | (100/100) | (80)   | (9.9)            | (50)   | (10, 1, 1, -)   | (0, 0, 6, -)     | (1000) | (72)  |       |
| infantry      | 1    | 0, 30, 0, 30, 0; 30    | 60/-      | 80     | 9.0              | 60     | 2, 1, 3, 2      | 0, 0, 10, 5      | 2000   | 50+1  |       |
| crossbowman   | (1)  | (-, 50, 50, 0, 0; 10)  | (100/100) | (80)   | (9.9)            | (50)   | (10, 1, 1, -)   | (0, 0, 6, -)     | (1000) | (72)  |       |
| infantry      | 1    | 0, 30, 0, 30, 0; 30    | 60/-      | 80     | 11.5             | 60     | 2, 1, 4, 1      | 9, 0, 0, 0       | 2000   | 40+1  |       |
| stone-slinger | (1)  | (-, 50, 20, 0, 30; 10) | (100/100) | (80)   | (10.8)           | (50)   | (10, 1, 1, -)   | (1, 0, 9.5, -)   | (1250) | (48)  |       |
| infantry      | 1    | 0, 30, 0, 30, 0; 30    | 60/-      | 80     | 11.5             | 60     | 2, 1, 4, 1      | 12, 0, 0, 0      | 2000   | 40+1  |       |
| staff-slinger | (1)  | (-, 50, 20, 0, 30; 10) | (100/100) | (80)   | (10.8)           | (50)   | (10, 1, 1, -)   | (1, 0, 9.5, -)   | (1250) | (48)  |       |
| infantry      | 1    | 0, 30, 0, 30, 0; 30    | 60/-      | 80     | 11.0             | 60     | 3, 1, 3, 1      | 0, 0, 20, 0      | 2000   | 30+1  |       |
| javelineer    | (1)  | (-, 50, 50, 0, 0; 10)  | (100/100) | (80)   | (12.6)           | (50)   | (10, 1, 1, -)   | (0, 0, 16, -)    | (1250) | (24)  |       |
| infantry      | 1    | 0, 30, 0, 30, 0; 30    | 60/-      | 80     | 10.5             | 60     | 5, 4, 4, 3      | 6, 12, 0, 0      | 2000   | 20+1  |       |
| axe-thrower   | (1)  | (-, 50, 50, 0, 0; 10)  | (100/100) | (80)   | (12.6)           | (50)   | (10, 1, 1, -)   | (0, 0, 16, -)    | (1250) | (24)  |       |
| infantry      | 1    | 0, 30, 0, 30, 0; 30    | 60/-      | 80     | 10.0             | 90     | 6, 4, 6, 8      | 15, 0, 0, 0      | 2000   | 3     |       |
| maceman       | (1)  | (-, 50, 40, 10, 0; 10) | (100/100) | (80)   | (9.45)           | (100)  | (15,5,5,-)      | (0, 5.5, 0, -)   | (750)  | (3.5) |       |
| infantry      | 1    | 0, 30, 0, 30, 0; 30    | 60/-      | 80     | 10.5             | 90     | 7, 6, 6, 5      | 5, 10, 0, 0      | 2000   | 3     |       |
| axeman        | (1)  | (-, 50, 40, 10, 0; 10) | (100/100) | (80)   | (9.45)           | (100)  | (15, 5, 5, -)   | (0, 5.5, 0, -)   | (750)  | (3.5) |       |
| infantry      | 1    | 0, 30, 0, 30, 0; 30    | 60/-      | 80     | 10.5             | 90     | 8, 6, 6, 4      | 0, 15, 0, 0      | 2000   | 3     |       |
| sabreman      | (1)  | (-, 50, 40, 10, 0; 10) | (100/100) | (80)   | (9.45)           | (100)  | (15, 5, 5, -)   | (0, 5.5, 0, -)   | (750)  | (3.5) |       |
| infantry      | 1    | 0, 30, 0, 30, 0; 30    | 60/-      | 80     | 9.5              | 90     | 5, 7, 5, 7      | 0, 12, 0, 4      | 2000   | 3     |       |
| longswordsman | (1)  | (-, 50, 40, 10, 0; 10) | (100/100) | (80)   | (9.45)           | (100)  | (15, 5, 5, -)   | (0, 5.5, 0, -)   | (750)  | (3.5) |       |
| infantry      | 1    | 0, 30, 0, 30, 0; 30    | 60/-      | 80     | 10.0             | 90     | 6, 6, 6, 6      | 0, 8, 0, 8       | 2000   | 3     |       |
| swordsman     | (1)  | (-, 50, 40, 10, 0; 10) | (100/100) | (80)   | (9.45)           | (100)  | (15, 5, 5, -)   | (0, 5.5, 0, -)   | (750)  | (3.5) |       |
| infantry      | 1    | 0, 30, 0, 30, 0; 30    | 60/-      | 80     | 10.0             | 90     | 4, 8, 6, 6      | 0, 0, 0, 15      | 2000   | 3     |       |
| spearman      | (1)  | (-, 50, 50, 0, 0; 10)  | (100/100) | (80)   | (8.55)           | (100)  | (15, 5, 5, -)   | (0, 3.0, 2.5, -) | (1000) | (4.5) |       |
| infantry      | 1    | 0, 30, 0, 30, 0; 30    | 60/-      | 80     | 9.0              | 90     | 5, 5, 9, 5      | 0, 0, 6, 6       | 2000   | 6     |       |
| pikeman       | (1)  | (-, 50, 50, 0, 0; 10)  | (100/100) | (80)   | (7.2)            | (100)  | (15, 10, 10, -) | (0, 1.0, 3.0, -) | (2000) | (7.0) |       |

#### 6

## 2.3.2 Cavalry

| 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 |
| cavalry     | 2    | 0, 75, 0, 45, 0; 50     | 120/-     | 85     | 15.0             | 150               | 1, 1, 1, 1    | 0, 0, 14, 0    | 2000            | 60+2  |       |
| archer      | (1)  | (-, 100, 50, 0, 0; 15)  | (130/150) | (92)   | (17.55)          | (100)             | (15, 3, 1, -) | (0, 0, 7, -)   | (1000)          | (72)  |       |
| cavalry     | 2    | 0, 75, 0, 45, 0; 50     | 120/-     | 85     | 15.0             | 150               | 1, 1, 2, 1    | 0, 0, 12, 6    | 2000            | 50+2  |       |
| crossbowman | (1)  | (-, 100, 50, 0, 0; 15)  | (130/150) | (92)   | (17.55)          | (100)             | (15, 3, 1, -) | (0, 0, 7, -)   | (1000)          | (72)  |       |
| cavalry     | 2    | 0, 75, 0, 45, 0; 50     | 120/-     | 85     | 15.0             | 150               | 2, 1, 2, 1    | 0, 0, 24, 0    | 2000            | 30+2  |       |
| javelineer  | (1)  | (-, 100, 50, 0, 0; 15)  | (130/150) | (92)   | (17.55)          | (100)             | (15, 3, 1, -) | (0, 0, 18, -)  | (1250)          | (28)  |       |
| cavalry     | 2    | 0, 75, 0, 45, 0; 50     | 120/-     | 85     | 15.0             | 150               | 5, 3, 5, 7    | 18, 0, 0, 0    | 2000            | 4     |       |
| maceman     | (1)  | (-, 100, 30, 20, 0; 15) | (130/150) | (92)   | (21.06)          | (160)             | (15, 4, 2, -) | (0, 6.5, 0, -) | (750)           | (3.5) |       |
| cavalry     | 2    | 0, 75, 0, 45, 0; 50     | 120/-     | 85     | 15.0             | 150               | 6, 5, 5, 4    | 6, 12, 0, 0    | 2000            | 4     |       |
| axeman      | (1)  | (-, 100, 30, 20, 0; 15) | (130/150) | (92)   | (21.06)          | (160)             | (15, 4, 2, -) | (0, 6.5, 0, -) | (750)           | (3.5) |       |
| cavalry     | 2    | 0, 75, 0, 45, 0; 50     | 120/-     | 85     | 15.0             | 150               | 7, 5, 5, 3    | 0, 18, 0, 0    | 2000            | 4     |       |
| sabreman    | (1)  | (-, 100, 30, 20, 0; 15) | (130/150) | (92)   | (21.06)          | (160)             | (15, 4, 2, -) | (0, 6.5, 0, -) | (750)           | (3.5) |       |
| cavalry     | 2    | 0, 75, 0, 45, 0; 50     | 120/-     | 85     | 15.0             | 150               | 5, 5, 5, 5    | 0, 9, 0, 9     | 2000            | 4     |       |
| swordsman   | (1)  | (-, 100, 30, 20, 0; 15) | (130/150) | (92)   | (21.06)          | (160)             | (15, 4, 2, -) | (0, 6.5, 0, -) | (750)           | (3.5) |       |
| cavalry     | 2    | 0, 75, 0, 45, 0; 50     | 120/-     | 85     | 15.0             | 150               | 3, 7, 5, 5    | 0, 0, 0, 18    | 2000            | 4     |       |
| spearman    | (1)  | (-, 100, 50, 0, 0; 15)  | (130/150) | (92)   | (19.305)         | (160)             | (15, 4, 3, -) | (0, 6, 5, -)   | (2000)          | (4.5) |       |
| cavalry     | 2    | 0, 75, 0, 45, 0; 50     | 120/-     | 85     | 15.0             | 150               | 6, 4, 6, 4    | 4, 0, 0, 16    | 2000            | 4     |       |
| lancer      | (1)  | (-, 100, 50, 0, 0; 15)  | (130/150) | (92)   | (19.305)         | (160)             | (15, 4, 3, -) | (0, 6, 5, -)   | (2000)          | (4.5) |       |

# 2.3.3 Camelry

| ${f class}$ | 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 |
| camel       | 2    | 0, 80, 0, 40, 0; 60    | 90/-      | 90     | 18.0             | 160    | 1, 1, 1, 1    | 0, 0, 13, 0   | 2000            | 60+3  |       |
| archer      | (1)  | (-, 100, 50, 0, 0; 15) | (130/150) | (92)   | (17.55)          | (100)  | (15,3,1,-)    | (0, 0, 7, -)  | (1000)          | (72)  |       |
| camel       | 2    | 0, 80, 0, 40, 0; 60    | 90/-      | 90     | 18.0             | 160    | 2, 1, 2, 1    | 0, 0, 22, 0   | 2000            | 30+3  |       |
| javelineer  | (1)  | (-, 100, 50, 0, 0; 15) | (130/150) | (92)   | (17.55)          | (100)  | (15,3,1,-)    | (0, 0, 18, -) | (1250)          | (28)  |       |
| camel       | 2    | 0, 80, 0, 40, 0; 60    | 90/-      | 90     | 18.0             | 160    | 2, 6, 4, 4    | 0, 0, 0, 17   | 2000            | 4     |       |
| spearman    | (1)  | (-, 100, 50, 0, 0; 15) | (130/150) | (92)   | (19.305)         | (160)  | (15, 4, 3, -) | (0, 6, 5, -)  | (2000)          | (4.5) |       |

# 2.3.4 Chariotry

| ${f class}$ | 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                |
| biga        | 4    | 0, 150, 0, 90, 0; 70      | 180/-   | 85     | 16.0             | 300    | 5, 5, 5, 5    | 0, 0, 15, 0   | 2000            | 60+2  | arrow count: 1–2 (–) |
| archer      | (1)  | (-, 250, 100, 100, 0; 30) | (150/-) | (96)   | (20.25)          | (240)  | (20, 7, 5, -) | (0, 0, 14, -) | (1000)          | (76)  |                      |
| biga        | 4    | 0, 150, 0, 90, 0; 70      | 180/-   | 85     | 16.0             | 300    | 6, 4, 6, 4    | 0, 0, 25, 0   | 2000            | 30+2  | arrow count: 1–2 (–) |
| javelineer  | (1)  | (-, 250, 100, 100, 0; 30) | (150/-) | (96)   | (20.25)          | (240)  | (20, 7, 5, -) | (0, 0, 36, -) | (1250)          | (32)  |                      |
| quadriga    | 6    | 0, 225, 0, 125, 0; 80     | 240/-   | 85     | 17.0             | 450    | 6, 6, 6, 6    | 0, 0, 16, 0   | 2000            | 60+2  |                      |
| archer      | (1)  | (-, 250, 100, 100, 0; 30) | (150/-) | (96)   | (20.25)          | (240)  | (20, 7, 5, -) | (0, 0, 14, -) | (1000)          | (76)  | arrow count: 1–2 (–) |
| quadriga    | 6    | 0, 225, 0, 125, 0; 80     | 240/-   | 85     | 17.0             | 450    | 6, 6, 6, 6    | 5, 10, 0, 10  | 2000            | 8     |                      |
| scythed     | (1)  | (-, 250, 100, 100, 0; 30) | (150/-) | (96)   | (20.25)          | (240)  | (20, 7, 5, -) | (0, 0, 14, -) | (1000)          | (76)  | arrow count: 1–2 (–) |

# 2.3.5 Elephantry

| class           | pop. | 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 |
| North African   | 5    | 0, 270, 0, 135, 0; 81   | 360/-   | 95     | 12.0             | 540    | 12, 3, 9, 6     | 81, 0, 0, 0     | 2000            | 6     |       |
| elephant        | (3)  | (-, 250, 0, 250, 0; 30) | (150/-) | (100)  | (8.45)           | (750)  | (25, 10, 10, -) | (150, 20, 0, -) | (1500)          | (8)   |       |
| Indian          | 5    | 0, 330, 0, 165, 0; 99   | 360/-   | 95     | 12.0             | 660    | 12, 3, 9, 6     | 99, 0, 0, 0     | 2000            | 6     |       |
| elephant        | (3)  | (-, 250, 0, 250, 0; 30) | (150/-) | (100)  | (8.45)           | (750)  | (25, 10, 10, -) | (150, 20, 0, -) | (1500)          | (8)   |       |
| armoured Indian | 5    | 0, 330, 0, 330, 0; 124  | 360/-   | 95     | 12.0             | 660    | 16, 7, 13, 10   | 99, 0, 0, 0     | 2000            | 6     |       |
| elephant        | (3)  | (-, 250, 0, 250, 0; 30) | (150/-) | (100)  | (8.45)           | (750)  | (25, 10, 10, -) | (150, 20, 0, -) | (1500)          | (8)   |       |

# 2.3.6 Siege engines

| class         | pop.            | construction costs      | exp.    | vision range    | walk             | health | armour        | damage             | $\mathbf{rate}$ | 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                       |
| small         | 3               | 0, 0, 100, 50, 0; 60    | -/-     | 100             | 8.0              | 100    | 5, 1, 25, 2   | 0, 0, 50, 30       | 4000            | 20-100     | 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)    | 3 metal per shot            |
| medium        | 3               | 0, 0, 150, 75, 0; 70    | -/-     | 100             | 8.0              | 150    | 5, 1, 25, 2   | 0, 0, 75, 45       | 2000            | 20-100     | un/pack (ms): 6000 (10000)  |
| bolt-shooter  | (2)             | (-, 0, 250, 250, 0; 20) | (200/-) | (120)           | (8.1)            | (200)  | (5, 1, 50, -) | (25, 0, 150, -)    | (4000)          | (26-80)    | 4 metal per shot            |
| large         | 3               | 0, 0, 200, 100, 0; 80   | -/-     | 100             | 8.0              | 200    | 5, 1, 25, 2   | 0, 0, 100, 60      | 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)    | 6 metal per shot            |
| small         | 4               | 0, 0, 180, 90, 0; 90    | -/-     | 100             | 7.0              | 180    | 5, 1, 25, 2   | 90, 0, 0, 0        | 5000            | 30-90      | un/pack (ms): 9000 (10000)  |
| stone-thrower | (2)             | (-, 0, 400, 0, 250; 25) | (300/-) | (120)           | (7.2)            | (250)  | (5, 1, 50, -) | (100, 0, 10, -)    | (5000)          | (26-80)    | 3 stone per shot            |
| medium        | 4               | 0, 0, 240, 120, 0; 100  | -/-     | 100             | 7.0              | 240    | 5, 1, 25, 2   | 120, 0, 0, 0       | 5000            | 30-90      | un/pack (ms): 10000 (10000) |
| stone-thrower | (2)             | (-, 0, 400, 0, 250; 25) | (300/-) | (120)           | (7.2)            | (250)  | (5, 1, 50, -) | (100, 0, 10, -)    | (5000)          | (26-80)    | 4 stone per shot            |
| large         | 4               | 0, 0, 360, 180, 0; 120  | -/-     | 100             | 7.0              | 360    | 5, 1, 25, 2   | 180, 0, 0, 0       | 5000            | 30-90      | un/pack (ms): 12000 (10000) |
| stone-thrower | (2)             | (-, 0, 400, 0, 250; 25) | (300/-) | (120)           | (7.2)            | (250)  | (5, 1, 50, -) | (100, 0, 10, -)    | (5000)          | (26-80)    | 6 stone per shot            |
| small         | 4               | 0, 0, 200, 40, 0; 30    | -/-     | 40              | 6.0              | 300    | 5, 1, 50, 3   | 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)      |                             |
| medium        | 4               | 0, 0, 250, 50, 0; 40    | -/-     | 40              | 6.0              | 375    | 5, 1, 50, 3   | 80, 0, 0, 0        | 2000            | 7          | garrison capacity: 8 (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, 0, 300, 60, 0; 50    | -/-     | 40              | 6.0              | 450    | 5, 1, 50, 3   | 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, 0, 500, 300, 0; 150  | -/-     | 100             | 4.0              | 750    | 6, 2, 50, 4   | 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)    |

# 2.3.7 Ships

| class        | pop.            | construction costs        | exp.    | vision | walk             | health | armour        | damage          | $\mathbf{rate}$ | range   | other                      |
|--------------|-----------------|---------------------------|---------|--------|------------------|--------|---------------|-----------------|-----------------|---------|----------------------------|
|              | $\mathbf{size}$ | (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, 15     | 2000            | 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) |
| $_{ m ship}$ | (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, 12, 0     | 2000            | 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, 12, 0     | 2000            | 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, 12, 0     | 2000            | 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, 12, 0     | 2000            | 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, 12, 0     | 2000            | 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, 12, 0     | 2000            | 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, 12, 0     | 2000            | 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)   |

# 2.3.8 Support

| 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                     |
| woman            | 1    | 0, 30, 0, 0, 0; 60     | -/-      | 60     | 9.0              | 50     | 1, 1, 1, 1        | 5, 0, 0, 0   | 2000            | 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              | 50     | 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              | 50     | 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              | 400    | 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,  -)  | (-)          | (-)             | (-)   |                           |

### 2.3.9 Fauna

| class                    | food   | max             | exp.            | vision | walk             | health | armour          | damage        | $\mathbf{rate}$ | range | behaviour  |
|--------------------------|--------|-----------------|-----------------|--------|------------------|--------|-----------------|---------------|-----------------|-------|------------|
|                          | amount | ${f gatherers}$ | $\mathbf{loot}$ | range  | $\mathbf{speed}$ |        | (c, h, p, t)    | (c, h, p, t)  | (ms)            | (m)   |            |
| chicken                  | 15     | 1               | _               | 10     | 1.5              | 3      | $1,\ 1,\ 1,\ 1$ | _             | _               | _     | domestic   |
| peacock                  | 25     | 1               | _               | 10     | 2.5              | 5      | $1,\ 1,\ 1,\ 1$ | _             | _               | _     | domestic   |
| goat                     | 75     | 2               | _               | 10     | 4.5              | 15     | 1, 1, 1, 1      | _             | _               | _     | domestic   |
| sheep                    | 100    | 2               | _               | 10     | 4.0              | 20     | 1, 1, 1, 1      | _             | _               | _     | domestic   |
| pig                      | 150    | 2               | _               | 10     | 3.0              | 30     | 1, 1, 1, 1      | _             | _               | _     | domestic   |
| flaming "                | _      | _               | _               | 10     | 9.0              | 30     | 1, 1, 1, 1      | _             | _               | _     | domestic   |
| zebu                     | 300    | 5               | _               | 10     | 5.0              | 60     | $1,\ 1,\ 1,\ 1$ | _             | _               | _     | domestic   |
| rabbit                   | 20     | 1               | _               | 10     | 3.5              | 10     | 1, 1, 1, 1      | _             | _               | _     | skittish   |
| donkey                   | 120    | 2               | _               | 10     | 6.0              | 40     | 1, 1, 1, 1      | _             | _               | _     | skittish   |
| horse                    | 200    | 3               | _               | 10     | 8.0              | 60     | 1, 1, 1, 1      | _             | _               | _     | skittish   |
| pony                     | 160    | 2               | _               | 10     | 6.4              | 45     | 1, 1, 1, 1      | _             | _               | _     | skittish   |
| dromedary camel          | 250    | 4               | _               | 10     | 7.0              | 80     | 1, 1, 1, 1      | _             | _               | _     | skittish   |
| deer                     | 130    | 2               | _               | 10     | 3.0              | 65     | 1, 1, 2, 1      | _             | _               | _     | skittish   |
| gazelle                  | 60     | 2               | _               | 10     | 12.5             | 30     | 1, 1, 1, 1      | _             | _               | _     | skittish   |
| giraffe                  | 350    | 6               | _               | 10     | 6.0              | 150    | 1, 1, 1, 1      | _             | _               | _     | skittish   |
| " infant                 | 140    | 2               | _               | 10     | 5.4              | 60     | 1, 1, 1, 1      | _             | _               | _     | skittish   |
| muskox                   | 170    | 3               | _               | 10     | 5.5              | 85     | 2, 1, 4, 1      | _             | _               | _     | skittish   |
| wildebeast               | 210    | 3               | _               | 10     | 8.5              | 105    | 2, 1, 2, 1      | _             | _               | _     | skittish   |
| zebra                    | 170    | 3               | _               | 10     | 9.0              | 85     | 1, 1, 1, 1      | _             | _               | _     | skittish   |
| African bush elephant    | 700    | 11              | 70              | 10     | 5.0              | 350    | 5, 3, 4, 2      | 88, 0, 0, 0   | 2000            | 6     | defensive  |
| " " " infant             | 280    | 4               | _               | 10     | 4.5              | 140    | 4, 2, 3, 1      |               | _               | _     | skittish   |
| Asian elephant           | 600    | 10              | 60              | 10     | 5.0              | 300    | 5, 3, 4, 2      | 80, 0, 0, 0   | 2000            | 6     | defensive  |
| " " infant               | 240    | 4               | _               | 10     | 4.5              | 120    | 4, 2, 3, 1      |               | _               | _     | skittish   |
| North African elephant   | 500    | 9               | 50              | 10     | 5.0              | 250    | 5, 3, 4, 2      | 72, 0, 0, 0   | 2000            | 6     | defensive  |
| " " " infant             | 200    | 4               | _               | 10     | 4.5              | 100    | 4, 2, 3, 1      |               | _               | _     | skittish   |
| walrus                   | 320    | 6               | _               | 10     | 2.0              | 160    | 4, 2, 4, 2      | 10, 0, 15, 25 | 2000            | 5     | defensive  |
| bear                     | 280    | 4               | _               | 10     | 6.0              | 140    | 4, 2, 3, 1      | 20, 20, 0, 0  | 2000            | 6     | aggressive |
| boar                     | 140    | 2               | _               | 10     | 8.0              | 70     | 3, 1, 2, 1      | 8, 0, 0, 16   | 2000            | 4     | aggressive |
| crocodile                | 180    | 3               | _               | 10     | 4.0              | 90     | 7, 3, 9, 5      | 0, 30, 0, 0   | 2000            | 8     | aggressive |
| rhinoceros               | 400    | 7               | _               | 10     | 7.0              | 200    | 4, 2, 5, 3      | 20, 0, 0, 20  | 2000            | 6     | aggressive |
| fox (red, arctic)        | _      | _               | _               | 10     | 9.0              | 30     | 1, 1, 3, 1      | 0, 5, 5, 0    | 2000            | 2     | defensive  |
| dog (mastiff, wolfhound) | _      | _               | _               | 10     | 11.0             | 50     | 1, 1, 3, 1      | 0, 10, 10, 0  | 2000            | 3     | aggressive |
| wolf (red, arctic)       | _      | _               | _               | 10     | 12.0             | 70     | 1, 1, 3, 1      | 0, 15, 15, 0  | 2000            | 4     | aggressive |
| lion(ess)                | _      | _               | _               | 10     | 13.0             | 100    | 1, 1, 3, 1      | 0, 20, 20, 0  | 2000            | 5     | violent    |
| tiger                    | _      | _               | _               | 10     | 14.0             | 110    | 1, 1, 3, 1      | 0, 25, 25, 0  | 2000            | 6     | violent    |
| shark                    | _      | _               | _               | 10     | 9.0              | 180    | 1, 1, 1, 1      | _             | _               | _     | passive    |
| whale (fin, humpback)    | 2000   | 5               | _               | 10     | 15.0             | 400    | 7, 3, 5, 1      | _             | _               | _     | skittish   |

### 2.4 Unit roster

## 2.4.1 Support

|          | CART | GAUL | KUSH | MACE | MAUR | PTOL | ROME | SELE |
|----------|------|------|------|------|------|------|------|------|
| woman    | V    | V    | V    | V    | V    | V    | V    | V    |
| trader   | V    | V    | V    | V    | V    | V    | V    | V    |
| healer   | Т    | Τ    | Τ    | Т    | Т    | Τ    | Τ    | Τ    |
| elephant | _    | _    | _    | _    | V    | _    | _    | _    |
| slave    | С    | С    | С    | С    | С    | С    | С    | С    |

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

### 2.4.2 Infantry

|                        | CART      | GAUL          | KUSH                   | MACE         | MAUR         | PTOL                              | ROME          | SELE   |
|------------------------|-----------|---------------|------------------------|--------------|--------------|-----------------------------------|---------------|--------|
| infantry lead-slinger  | _         | _             | _                      | _            | _            | _                                 | _             | _      |
| " " mercenary          | _         | _             | _                      | ${ m T}$     | _            | ${ m T}$                          | _             | _      |
| " " champion           | _         | _             | _                      | _            | _            | _                                 | _             | _      |
| infantry archer        | V         | _             | V                      | _            | V            | _                                 | _             | Τ      |
| " " mercenary          | _         | _             | _                      | ${ m T}$     | _            | ${ m T}$                          | _             | _      |
| " " champion           | _         | _             | $\mathbf{C}$           | _            | _            | _                                 | _             | _      |
| infantry crossbowman   | _         | _             | _                      | _            | _            | _                                 | _             | _      |
| " " mercenary          | _         | _             | _                      | _            | _            | _                                 | _             | _      |
| " " champion           | _         | _             | _                      | $\mathbf{C}$ | _            | _                                 | _             | _      |
| infantry stone-slinger | _         | Т             | _                      | _            | _            | V                                 | _             | _      |
| " " mercenary          | T         | _             | _                      | _            | _            | _                                 | _             | _      |
| " " champion           | _         | _             | _                      | _            | _            | _                                 | _             | _      |
| infantry staff-slinger | _         | _             | _                      | _            | _            | _                                 | _             | _      |
| " " mercenary          | _         | _             | _                      | _            | _            | _                                 | _             | _      |
| " " champion           | _         | _             | _                      | _            | _            | _                                 | _             | _      |
| infantry javelineer    | _         | V             | _                      | V            | _            | _                                 | V             | V      |
| " " mercenary          | $\Gamma$  | _             | ${ m T}$               | _            | _            | ${ m T}$                          | _             | _      |
| " " champion           | _         | _             | _                      | _            | _            | _                                 | _             | _      |
| infantry axe-thrower   | _         | _             | _                      | _            | _            | _                                 | _             | _      |
| " " mercenary          | _         | _             | _                      | _            | _            | _                                 | _             | _      |
| " " champion           | _         | _             | _                      | _            | _            | _                                 | _             | _      |
| infantry maceman       | _         | _             | _                      | _            | _            | _                                 | _             | _      |
| " " mercenary          | _         | _             | ${ m T}$               | _            | _            | _                                 | _             | _      |
| " " champion           | _         | _             | _                      | _            | С            | _                                 | _             | _      |
| infantry axeman        | _         | _             | Т                      | _            | _            | _                                 | _             | _      |
| " " mercenary          | _         | _             | _                      | _            | _            | _                                 | _             | _      |
| " " champion           | _         | _             | _                      | _            | _            | _                                 | _             | _      |
| infantry sabreman      | _         | _             |                        | _            | T            | _                                 | V             |        |
| " " mercenary          | _         | _             | _                      | _            | _            | _                                 | _             | _      |
| " " champion           | _         | _             | $\mathbf{C}$           | _            | _            | _                                 | _             | _      |
| infantry longswordsman | _         |               |                        |              | _            |                                   |               |        |
| " " mercenary          | _         | _             | _                      | _            | _            | _                                 | _             | _      |
| " " champion           | _         | _             | _                      | _            | _            | _                                 | _             | _      |
| infantry swordsman     | _         | V             | Τ                      |              | _            |                                   | T             |        |
| " " mercenary          | $\Gamma$  | _             | _                      | _            | _            | ${ m T}$                          | _             | _      |
| " " champion           | _         | $\mathbf{C}$  | _                      | _            | _            | _                                 | $\mathbf{C}$  | _      |
| infantry spearman      | V         | $\frac{C}{T}$ | V                      |              | V            |                                   | $\frac{C}{T}$ | V      |
| " " mercenary          | $\Gamma$  | _             | _                      | ${ m T}$     |              | ${ m T}$                          | _             | _      |
| " " champion           | C         | _             | _                      | C            | _            | _                                 | _             | _      |
| infantry pikeman       | _         |               |                        | V            | _            | V                                 |               | Т      |
| " " mercenary          |           | _             | _                      | <b>v</b>     | _            | $\overset{	extbf{v}}{\mathrm{T}}$ | _             | _      |
| " " champion           | _         | _             | _                      | _            | _            | $\stackrel{1}{\mathrm{C}}$        | _             | $^{-}$ |
| NB: -: not available f | or this f | action        | $V \cdot \text{requi}$ | ires villa   | <br>ge_phase |                                   | nuires to     | _      |

**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

|                     | CART      | GAUL         | KUSH         | MACE            | MAUR      | PTOL         | ROME     | SELE         |
|---------------------|-----------|--------------|--------------|-----------------|-----------|--------------|----------|--------------|
| cavalry archer      | _         | _            | _            | _               | _         | _            | _        | _            |
| " " mercenary       | _         | _            | _            | _               | _         | _            | _        | ${ m T}$     |
| " " champion        | _         | _            | _            | _               | _         | _            | _        | _            |
| cavalry crossbowman | _         | _            | _            | _               | _         | _            | _        | _            |
| " " mercenary       | _         | _            | _            | _               | _         | _            | _        | _            |
| " " champion        | _         | _            | _            | _               | _         | _            | _        | _            |
| cavalry javelineer  | V         | Т            | V            | Т               | V         | _            | Т        | V            |
| " " mercenary       | Т         | _            | _            | _               | _         | ${ m T}$     | _        | _            |
| " " champion        | _         | _            | _            | _               | _         | _            | _        | _            |
| cavalry maceman     | _         | _            | _            | _               | _         | _            | _        | _            |
| " " mercenary       | _         | _            | _            | _               | _         | _            | _        | _            |
| " " champion        | _         | _            | _            | _               | _         | _            | _        | _            |
| cavalry axeman      | _         | _            | _            | _               | _         | _            | _        | _            |
| " " mercenary       | _         | _            | _            | _               | _         | _            | _        | _            |
| " " champion        | _         | _            | _            | _               | _         | _            | _        | _            |
| cavalry sabreman    | _         | _            | _            | _               | _         | _            | _        | _            |
| " " mercenary       | Т         | _            | _            | _               | _         | _            | _        | _            |
| " " champion        | _         | _            | _            | _               | _         | _            | _        | _            |
| cavalry swordsman   | _         | V            | _            | _               | Т         | _            | _        | _            |
| " " mercenary       | Т         | _            | _            | _               | _         | _            | _        | _            |
| " " champion        | _         | _            | _            | _               | _         | _            | _        | _            |
| cavalry spearman    | _         | _            | Т            | _               | _         | Т            | V        | _            |
| " " mercenary       | Т         | _            | _            | _               | _         | _            | _        |              |
| " " champion        | _         | $\mathbf{C}$ | $\mathbf{C}$ | _               | _         | $\mathbf{C}$ | _        | _            |
| cavalry lancer      | _         | _            | _            | V               | _         | _            | _        | Т            |
| " " mercenary       | _         | _            | _            | _               | _         | _            | _        | _            |
| " " champion        | С         | _            | _            | $^{\mathrm{C}}$ | _         | _            | _        | $\mathbf{C}$ |
| NB: - not available | o for the | ic faction   | . V. ro      | aniros v        | illago ph | ogo T.       | roquirog | town n       |

**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.

### 2.4.4 Exotic units

|                        | CART | $\operatorname{GAUL}$ | KUSH     | MACE  | MAUR       | PTOL | ROME | SELE         |
|------------------------|------|-----------------------|----------|-------|------------|------|------|--------------|
| camel archer           | _    | _                     | _        | _     | _          | _    | _    | _            |
| " " mercenary          | _    | _                     | _        | _     | _          | _    | _    | ${ m T}$     |
| " " champion           | _    | _                     | _        | _     | _          | _    | _    | _            |
| camel javelineer       | _    | _                     | _        | _     | _          | _    | _    | _            |
| " " mercenary          | _    | _                     | ${ m T}$ | _     | _          | _    | _    | _            |
| " " champion           | _    | _                     | _        | _     | _          | _    | _    | _            |
| camel spearman         | _    | _                     | _        | _     | _          | _    | _    | _            |
| " " mercenary          | _    | _                     | _        | _     | _          | _    | _    | _            |
| " " champion           | _    | _                     | _        | _     | _          | _    | _    | _            |
| biga archer            | _    | _                     | _        | _     | С          | _    | _    | _            |
| " " mercenary          | _    | _                     | _        | _     | _          | _    | _    | _            |
| biga javelineer        | _    | _                     | _        | _     | _          | _    | _    | _            |
| " " mercenary          | _    | _                     | _        | _     | _          | _    | _    | _            |
| quadriga scythed       | _    | _                     | _        | _     | _          | _    | _    | С            |
| " " mercenary          | _    | _                     | _        | _     | _          | _    | _    | _            |
| Indian elephant        | _    | _                     | _        | _     | Т          | _    | _    | _            |
| " " mercenary          | _    | _                     | _        | $C^*$ | _          | _    | _    | _            |
| " " cataphract         | _    | _                     | _        | _     | $^{\rm C}$ | _    | _    | $\mathbf{C}$ |
| North African elephant | С    | _                     | С        | _     | _          | С    | _    | _            |
| " " mercenary          | _    | _                     | _        | _     | _          | _    | _    | _            |
| war dog                |      | -<br>-                |          |       | _          |      |      | - ,          |

**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

|                      | CART | GAUL | KUSH     | MACE         | MAUR | PTOL         | ROME         | SELE     |
|----------------------|------|------|----------|--------------|------|--------------|--------------|----------|
| small bolt-shooter   | _    | _    | _        | _            | _    | _            | С            | _        |
| medium bolt-shooter  | _    | _    | _        | _            | _    | $\mathbf{C}$ | _            | _        |
| large bolt-shooter   | C    | _    | _        | $\mathbf{C}$ | _    | _            | _            | _        |
| small stone-thrower  | _    | _    | _        | С            | С    | С            | _            | С        |
| medium stone-thrower | С    | _    | _        | _            | _    | _            | _            | _        |
| large stone-thrower  | _    | _    | _        | _            | _    | _            | $\mathbf{C}$ | _        |
| small battering ram  | Т    | Τ    | _        | _            | Т    | _            | _            | _        |
| medium battering ram | _    | _    | _        | ${ m T}$     | _    | ${ m T}$     | _            | ${ m T}$ |
| large battering ram  | _    | _    | ${ m T}$ | _            | _    | _            | ${ m T}$     | _        |
| siege tower          | _    | _    | _        | С            | _    | _            | _            | _        |

 $\overline{\mathbf{NB}}$ : -: 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.

### 2.4.6 Ships

|                | CART | $\operatorname{GAUL}$ | KUSH | MACE     | MAUR | PTOL         | ROME            | SELE     |
|----------------|------|-----------------------|------|----------|------|--------------|-----------------|----------|
| fishing boat   | V    | V                     | V    | V        | V    | V            | V               | V        |
| merchant ship  | Т    | Τ                     | Т    | Т        | Т    | Т            | Т               | T        |
| fireship       | _    | _                     | _    | _        | _    | _            | _               | _        |
| war barge      | _    | Т                     | _    | _        | Т    | _            | _               | _        |
| war barge huge | _    | _                     | _    | _        | C    | _            | _               | _        |
| triaconter     | _    | _                     | _    | _        | _    | _            | _               | _        |
| penteconter    | _    | _                     | _    | ${ m T}$ | _    | _            | ${ m T}$        | ${ m T}$ |
| trireme        | Т    | _                     | Т    | Τ        | _    | Т            | Τ               | Т        |
| quadrireme     | C    | _                     | _    | _        | _    | $\mathbf{C}$ | $^{\mathrm{C}}$ | _        |
| quinquereme    | C    | _                     | _    | _        | _    | $\mathbf{C}$ | $\mathbf{C}$    | _        |

**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.

# 3 Structures

# 3.1 Base

| class            | building costs             | pop.  | armour         | capture           | garrison | $\mathbf{health}$ | $\operatorname{territory}$ | vision |
|------------------|----------------------------|-------|----------------|-------------------|----------|-------------------|----------------------------|--------|
|                  | (s, f, i, w, s; time)      | bonus | (c, h, p, t)   | $\mathbf{points}$ | capacity |                   | (root/radius/weight)       | range  |
| centre, crannog  | 0, 200, 200, 200, 400; 400 | 10    | 4, 9, 100, 16  | 2500              | 20       | 2500              | 1/125/10000                | 90     |
| (civil center)   | (-, 0, 500, 500, 500; 500) | (20)  | (3, 25, 35, -) | (2500)            | (20)     | (3000)            | (1/140/10000)              | (90)   |
| fortified centre | 0, 200, 300, 600, 900; 600 | 20    | 4, 9, 100, 16  | 5000              | 40       | 5000              | 1/125/20000                | 100    |
| (civil center)   | (-, 0, 500, 500, 500; 500) | (20)  | (3, 25, 35, -) | (2500)            | (20)     | (3000)            | (1/140/10000)              | (90)   |
| palace           | 0, 200, 200, 200, 600; 300 | 10    | 4, 9, 100, 16  | 1800              | 20       | 3000              | 1/60/60000                 | 100    |
| (apadana)        | (-, 0, 200, 0, 300; 300)   | (10)  | (3, 20, 30, -) | (500)             | (10)     | (3000)            | (1/48/40000)               | (40)   |

## 3.2 House

| class           | building costs        | pop.  | armour         | capture           | garrison | $\mathbf{health}$ | territory            | vision |
|-----------------|-----------------------|-------|----------------|-------------------|----------|-------------------|----------------------|--------|
|                 | (s, f, i, w, s; time) | bonus | (c, h, p, t)   | $\mathbf{points}$ | capacity |                   | (root/radius/weight) | range  |
| small house     | 0, 0, 0, 60, 0; 20    | 4     | 4, 9, 100, 16  | 200               | 4        | 400               | 0/20/20000           | 30     |
| (small house)   | (-, 0, 0, 75, 0; 30)  | (5)   | (3, 20, 30, -) | (300)             | (3)      | (800)             | (0/16/65535)         | (20)   |
| medium house    | 0, 0, 0, 90, 0; 30    | 6     | 4, 9, 100, 16  | 300               | 6        | 600               | 0/20/20000           | 30     |
| (small house)   | (-, 0, 0, 75, 0; 30)  | (5)   | (3, 20, 30, -) | (300)             | (3)      | (800)             | (0/16/65535)         | (20)   |
| large house     | 0, 0, 0, 120, 0; 40   | 8     | 4, 9, 100, 16  | 400               | 8        | 800               | 0/20/20000           | 30     |
| (big house)     | (-, 0, 0, 150, 0; 50) | (10)  | (3, 20, 30, -) | (300)             | (6)      | (1200)            | (0/20/40000)         | (20)   |
| apartment block | 0, 0, 0, 180, 0; 60   | 12    | 4, 9, 100, 16  | 600               | 12       | 1200              | 0/20/20000           | 30     |
| (big house)     | (-, 0, 0, 150, 0; 50) | (10)  | (3, 20, 30, -) | (300)             | (6)      | (1200)            | (0/20/40000)         | (20)   |

# 3.3 Resource

| ${f class}$ | building costs        | pop.  | armour         | capture           | garrison | health | territory            | vision |
|-------------|-----------------------|-------|----------------|-------------------|----------|--------|----------------------|--------|
|             | (s, f, i, w, s; time) | bonus | (c, h, p, t)   | $\mathbf{points}$ | capacity |        | (root/radius/weight) | range  |
| field       | 0, 0, 0, 100, 0; 60   | 0     | 4, 1, 100, 16  | 100               | _        | 300    | _                    | 1      |
|             | (-, 0, 0, 100, 0; 50) | (0)   | (5, 15, 40, -) | (500)             | (-)      | (250)  | (-)                  | (0)    |

#### <u>\_\_</u>

# 3.4 Economic

| class        | building costs           | pop.  | armour         | capture           | garrison | $\mathbf{health}$ | territory            | vision |
|--------------|--------------------------|-------|----------------|-------------------|----------|-------------------|----------------------|--------|
|              | (s, f, i, w, s; time)    | bonus | (c, h, p, t)   | $\mathbf{points}$ | capacity |                   | (root/radius/weight) | range  |
| corral       | 0, 0, 0, 100, 0; 30      | 0     | 1, 4, 100, 9   | 150               | 3        | 450               | _                    | 30     |
|              | (-, 0, 0, 100, 0, 0; 50) | (0)   | (1, 1, 20, -)  | (500)             | (-)      | (500)             | (0/20/30000)         | (20)   |
| storehouse   | 0, 0, 0, 100, 0; 40      | 0     | 1, 4, 100, 9   | 200               | 4        | 600               | _                    | 30     |
|              | (-, 0, 0, 100, 0, 0; 40) | (0)   | (1, 5, 20, -)  | (300)             | (-)      | (800)             | (0/20/30000)         | (20)   |
| farmstead    | 0, 0, 0, 100, 0; 50      | 0     | 1, 4, 100, 9   | 250               | 5        | 750               | _                    | 30     |
|              | (-, 0, 0, 100, 0, 0; 45) | (0)   | (1, 5, 20, -)  | (300)             | (-)      | (900)             | (0/20/30000)         | (20)   |
| rotary mill  | 0, 100, 0, 100, 100; 60  | 0     | 1, 4, 100, 9   | 300               | 6        | 900               | _                    | 30     |
|              | (-, 0, 0, 200, 100; 100) | (2)   | (3, 20, 30, -) | (500)             | (-)      | (2000)            | (0/32/40000)         | (40)   |
| forge        | 0, 0, 0, 200, 100; 80    | 0     | 1, 4, 100, 9   | 400               | 8        | 1200              | _                    | 30     |
| (blacksmith) | (-, 0, 0, 200, 0; 200)   | (0)   | (3, 20, 35, -) | (500)             | (1)      | (2000)            | (0/38/30000)         | (32)   |
| market       | 0, 0, 0, 250, 0; 100     | 0     | 1, 4, 100, 9   | 500               | 10       | 1500              | _                    | 30     |
|              | (-, 0, 0, 300, 0; 150)   | (0)   | (1, 5, 20, -)  | (500)             | (-)      | (1500)            | (0/40/30000)         | (32)   |
| dock         | 0, 0, 0, 200, 0; 120     | 0     | 1, 4, 100, 9   | 600               | 12       | 1800              | _                    | 30     |
|              | (-, 0, 0, 200, 0; 150)   | (5)   | (3, 20, 35, -) | (500)             | (1)      | (2500)            | (-)                  | (40)   |

# 3.5 Civic

| class      | building costs                    | pop.  | armour         | capture           | garrison | health | $\operatorname{territory}$ | vision |
|------------|-----------------------------------|-------|----------------|-------------------|----------|--------|----------------------------|--------|
|            | (s, f, i, w, s; time)             | bonus | (c, h, p, t)   | $\mathbf{points}$ | capacity |        | (root/radius/weight)       | range  |
| pillar     | 0, 0, 0, 75, 75; 75               | 0     | 4, 16, 100, 25 | _                 | _        | 500    | _                          | 1      |
| (monument) | (-, 0, 0, 100, 100; 120)          | (0)   | (3, 20, 30, -) | (-)               | (-)      | (1200) | (1/38/40000)               | (60)   |
| (pillar)   | (-, 0, 0, 100, 100; 80)           | (0)   | (3, 20, 30, -) | (-)               | (-)      | (1000) | (1/38/40000)               | (40)   |
| temple     | 0, 0, 100, 100, 300; 300          | 0     | 4, 16, 100, 25 | 1000              | 20       | 2000   | 0/50/50000                 | 50     |
|            | (-, 0, 0, 0, 300; 200)            | (5)   | (3, 20, 30, -) | (500)             | (20)     | (2000) | (0/40/30000)               | (40)   |
| library    | 0, 0, 200, 200, 600; 400          | 0     | 4, 16, 100, 25 | 1500              | 30       | 3000   | 0/50/50000                 | 50     |
|            | (-, 0, 200, 0, 200; 200)          | (0)   | (3, 20, 30, -) | (500)             | (5)      | (2000) | (0/50/40000)               | (40)   |
| lighthouse | 0, 0, 250, 250, 750; 500          | 0     | 4, 16, 100, 25 | 2000              | 40       | 4000   | _                          | 300    |
|            | (-, 0, 200, 0, 200; 200)          | (0)   | (3, 20, 30, -) | (500)             | (5)      | (2000) | (0/0/40000)                | (180)  |
| theatre    | 0, 0, 300, 300, 900; 600          | 0     | 4, 16, 100, 25 | 2500              | 50       | 5000   | 0/100/50000                | 50     |
|            | (-, 0, 500, 0, 500; 500)          | (0)   | (3, 20, 30, -) | (500)             | (5)      | (2000) | (0/100/40000)              | (40)   |
| wonder     | 0, 0, 1000, 1000, 3000; 1200      | 0     | 4, 16, 100, 25 | 3000              | 60       | 6000   | 1/100/65535                | 100    |
|            | (-, 1000, 1000, 1000, 1000; 1000) | (0)   | (3, 15, 25, -) | (2000)            | (30)     | (5000) | (1/100/65535)              | (72)   |

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# 3.6 Military

| class           | building costs             | pop.  | armour         | capture           | garrison | $\mathbf{health}$ | territory            | vision |
|-----------------|----------------------------|-------|----------------|-------------------|----------|-------------------|----------------------|--------|
|                 | (s, f, i, w, s; time)      | bonus | (c, h, p, t)   | $\mathbf{points}$ | capacity |                   | (root/radius/weight) | range  |
| arsenal         | 0, 0, 100, 300, 0; 200     | 0     | 4, 9, 100, 16  | 1000              | 2        | 1800              | 0/40/40000           | 40     |
| (workshop)      | (-, 0, 0, 300, 0; 200)     | (0)   | (3, 20, 35, -) | (500)             | (2)      | (2000)            | (0/38/40000)         | (40)   |
| barracks        | 0, 0, 100, 300, 0; 150     | 0     | 4, 9, 100, 16  | 1000              | 15       | 2000              | 0/40/40000           | 40     |
|                 | (-, 0, 0, 300, 0; 150)     | (0)   | (3, 20, 35, -) | (500)             | (10)     | (2000)            | (0/50/40000)         | (32)   |
| cavalry stable  | 0, 0, 100, 300, 0; 150     | 0     | 4, 9, 100, 16  | 1000              | 10       | 2000              | 0/40/40000           | 40     |
|                 | (-, 0, 0, 0, 200; 150)     | (0)   | (3, 20, 35, -) | (500)             | (10)     | (2000)            | (0/50/40000)         | (32)   |
| elephant stable | 0, 0, 100, 300, 0, 0; 250  | 0     | 4, 9, 100, 16  | 1000              | 5        | 2000              | 0/40/40000           | 40     |
|                 | (-, 0, 200, 0, 200; 300)   | (0)   | (3, 20, 35, -) | (500)             | (5)      | (3000)            | (0/38/40000)         | (40)   |
| hall            | 0, 0, 100, 300, 0; 150     | 0     | 4, 9, 100, 16  | 1000              | 6        | 2000              | 0/40/40000           | 40     |
|                 | (-, 0, 250, 0, 250; 300)   | (0)   | (3, 20, 30, -) | (500)             | (10)     | (3000)            | (0/38/40000)         | (40)   |
| mercenary camp  | 0, 0, 50, 150, 0; 90       | 0     | 4, 9, 100, 16  | 1000              | 6        | 2000              | 0/40/40000           | 40     |
| (embassy)       | (-, 0, 200, 100, 100; 150) | (0)   | (3, 20, 30, -) | (500)             | (6)      | (2000)            | (0/25/40000)         | (24)   |
| practice range  | 0, 0, 100, 300, 0; 150     | 0     | 4, 9, 100, 16  | 1000              | 10       | 1400              | 0/40/40000           | 40     |
|                 | (-, 0, 0, 300, 0; 150)     | (0)   | (3, 20, 35, -) | (500)             | (10)     | (2000)            | (0/50/40000)         | (32)   |
| shipyard        | 0, 0, 100, 300, 0; 150     | 0     | 4, 9, 100, 16  | 1000              | 5        | 1800              | _                    | 40     |
| (dock)          | (-, 0, 0, 200, 0; 150)     | (5)   | (3, 20, 35, -) | (500)             | (1)      | (2500)            | (-)                  | (40)   |

# 3.7 Defensive

| class           | building costs              | pop.  | armour         | capture           | garrison | health | territory            | vision |
|-----------------|-----------------------------|-------|----------------|-------------------|----------|--------|----------------------|--------|
|                 | (s, f, i, w, s; time)       | bonus | (c, h, p, t)   | $\mathbf{points}$ | capacity |        | (root/radius/weight) | range  |
| outpost         | 0, 0, 0, 60, 0; 30          | 0     | 4, 9, 100, 16  | 300               | 1        | 480    | _                    | 1      |
|                 | (-, 0, 0, 80, 0; 40)        | (0)   | (1, 5, 20, -)  | (500)             | (1)      | (800)  | (-)                  | (80)   |
| small tower     | 0, 30, 20, 100, 0; 90       | 0     | 4, 9, 100, 16  | 500               | 2        | 750    | 0/15/30000           | 90     |
| (sentry tower)  | (-, 0, 0, 100, 0; 40)       | (0)   | (1, 20, 25, -) | (500)             | (3)      | (500)  | (0/16/30000)         | (80)   |
| large tower     | 0, 60, 40, 100, 100; 150    | 0     | 4, 9, 100, 16  | 750               | 4        | 1500   | 0/30/30000           | 100    |
| (defense tower) | (-, 0, 0, 100, 100; 150)    | (0)   | (3, 25, 30, -) | (500)             | (5)      | (1000) | (0/32/40000)         | (80)   |
| small fortress  | 0, 300, 200, 300, 600; 420  | 0     | 9, 25, 100, 36 | 3000              | 30       | 4200   | 1/100/40000          | 100    |
| (fortress)      | (-, 0, 0, 0, 1000; 500)     | (10)  | (6, 25, 40, -) | (4000)            | (20)     | (4200) | (0/100/40000)        | (80)   |
| medium fortress | 0, 300, 200, 400, 800; 510  | 0     | 9, 25, 100, 36 | 3000              | 40       | 5100   | 1/100/40000          | 100    |
| (fortress)      | (-, 0, 0, 0, 1000; 500)     | (10)  | (6, 25, 40, -) | (4000)            | (20)     | (4200) | (0/100/40000)        | (80)   |
| large fortress  | 0, 300, 200, 500, 1000; 600 | 0     | 9, 25, 100, 36 | 3000              | 50       | 6000   | 1/100/40000          | 100    |
| (fortress)      | (-, 0, 0, 0, 1000; 500)     | (10)  | (6, 25, 40, -) | (4000)            | (20)     | (4200) | (0/100/40000)        | (80)   |

| class               | building costs        | pop.  | armour         | capture | garrison | health | territory            | vision |
|---------------------|-----------------------|-------|----------------|---------|----------|--------|----------------------|--------|
|                     | (s, f, i, w, s; time) | bonus | (c, h, p, t)   | points  | capacity |        | (root/radius/weight) | range  |
| palisade short      | 0, 0, 0, 5, 0; 5      | 0     | 4, 9, 100, 16  | _       | _        | 250    | _                    | 1      |
|                     | (-, 0, 0, 4, 0; 5)    | (0)   | (2, 4, 25, -)  | (1200)  | (-)      | (250)  | (-)                  | (20)   |
| palisade medium     | 0, 0, 0, 10, 0; 10    | 0     | 4, 9, 100, 16  | _       | _        | 500    | _                    | 1      |
|                     | (-, 0, 0, 7, 0; 8)    | (0)   | (2, 4, 25, -)  | (1200)  | (-)      | (500)  | (-)                  | (20)   |
| palisade long       | 0, 0, 0, 15, 0; 15    | 0     | 4, 9, 100, 16  | _       | _        | 750    | _                    | 1      |
|                     | (-, 0, 0, 13, 0; 11)  | (0)   | (2, 4, 25, -)  | (1200)  | (-)      | (750)  | (-)                  | (20)   |
| palisade gate       | 0, 0, 0, +20, 0; +5   | 0     | 4, 9, 100, 16  | _       | _        | 900    | _                    | 10     |
|                     | (-, 0, 0, +20, 0; +5) | (0)   | (2, 4, 25, -)  | (1200)  | (-)      | (637)  | (-)                  | (20)   |
| palisade tower      | 0, 0, 0, 9, 0; 9      | 0     | 4, 9, 100, 16  | _       | _        | 450    | -                    | 1      |
|                     | (-, 0, 0, 5, 0; 7)    | (0)   | (2, 4, 25, -)  | (1200)  | (-)      | (750)  | (-)                  | (20)   |
| low wall short      | 0, 0, 0, 0, 5; 5      | 0     | 9, 16, 100, 25 | _       | _        | 250    | _                    | 1      |
|                     | (-, 0, 0, 4, 0; 5)    | (0)   | (2, 4, 25, -)  | (1200)  | (-)      | (250)  | (-)                  | (20)   |
| low wall medium     | 0, 0, 0, 0, 10; 10    | 0     | 9, 16, 100, 25 | _       | _        | 500    | _                    | 1      |
|                     | (-, 0, 0, 7, 0; 8)    | (0)   | (2, 4, 25, -)  | (1200)  | (-)      | (500)  | (-)                  | (20)   |
| low wall long       | 0, 0, 0, 0, 15; 15    | 0     | 9, 16, 100, 25 | _       | _        | 750    | _                    | 1      |
|                     | (-, 0, 0, 13, 0; 11)  | (0)   | (2, 4, 25, -)  | (1200)  | (-)      | (750)  | (-)                  | (20)   |
| low wall gate       | 0, 0, 0, +20, 0; +5   | 0     | 4, 9, 100, 16  | _       | _        | 900    | _                    | 10     |
|                     | (-, 0, 0, +20, 0; +5) | (0)   | (2, 4, 25, -)  | (1200)  | (-)      | (637)  | (-)                  | (20)   |
| low wall tower      | 0, 0, 0, 0, 9; 9      | 0     | 9, 16, 100, 25 | _       | _        | 450    | _                    | 1      |
|                     | (-,0,0,5,0;7)         | (0)   | (2, 4, 25, -)  | (1200)  | (-)      | (750)  | (-)                  | (20)   |
| wooden wall short   | 0, 0, 0, 30, 0; 12    | 0     | 4, 16, 100, 25 | _       | 2        | 600    | _                    | 1      |
| (siege wall short)  | (-, 0, 0, 20, 0; 15)  | (0)   | (5, 15, 35, -) | (1200)  | (-)      | (750)  | (-)                  | (20)   |
| wooden wall medium  | 0, 0, 0, 60, 0; 24    | 0     | 4, 16, 100, 25 | _       | 4        | 1200   | _                    | 1      |
| (siege wall medium) | (-, 0, 0, 40, 0; 30)  | (0)   | (5, 15, 35, -) | (1200)  | (3)      | (1500) | (-)                  | (20)   |
| wooden wall long    | 0, 0, 0, 90, 0; 36    | 0     | 4, 16, 100, 25 |         | 6        | 1800   | _                    | 1      |
| (siege wall long)   | (-, 0, 60, 0, 0; 45)  | (0)   | (5, 15, 35, -) | (1200)  | (5)      | (2250) | (-)                  | (20)   |
| wooden wall gate    | 0, 0, +30, +30, 0; 28 | 0     | 4, 16, 100, 25 | _       | _        | 1500   | _                    | 20     |
| (siege wall gate)   | (-, 0, 0, +80, 0; 45) | (0)   | (5, 15, 35, -) | (1200)  | (-)      | (1912) | (-)                  | (20)   |
| wooden wall tower   | 0, 0, 0, 120, 0; 42   | 0     | 4, 16, 100, 25 | _       | 2        | 2100   | _                    | 1      |
| (siege wall tower)  | (-, 0, 0, 100, 0; 80) | (0)   | (5, 15, 35, -) | (1200)  | (2)      | (3000) | (-)                  | (60)   |
| city wall short     | 0, 0, 0, 12, 36; 24   | 0     | 9, 25, 100, 36 | _       | 2        | 1200   | _                    | 1      |
|                     | (-, 0, 0, 0, 15; 15)  | (0)   | (3, 25, 30, -) | (1200)  | (-)      | (1000) | (0/20/65535)         | (20)   |
| city wall medium    | 0, 0, 0, 24, 72; 48   | 0     | 9, 25, 100, 36 |         | 4        | 2400   | _                    | 1      |
| ·                   | (-, 0, 0, 0, 22; 30)  | (0)   | (3, 25, 30, -) | (1200)  | (3)      | (2000) | (0/20/65535)         | (20)   |
| city wall long      | 0, 0, 0, 36, 108; 72  | 0     | 9, 25, 100, 36 |         | 6        | 3600   | _                    | 1      |
|                     | (-, 0, 0, 0, 28; 45)  | (0)   | (3, 25, 30, -) | (1200)  | (5)      | (3000) | (0/20/65535)         | (20)   |
| city wall gate      | 0, 0, +40, +40, 0; 60 | 0     | 9, 25, 100, 36 |         |          | 3000   | _                    | 30     |
|                     | (-, 0, 0, 0, +60; 45) | (0)   | (3, 25, 30, -) | (1200)  | (-)      | (2550) | (0/20/65535)         | (20)   |
| city wall tower     | 0, 0, 0, 42, 126; 84  | 0     | 9, 25, 100, 36 |         | 2        | 4200   | _                    | 1      |
| *                   | (-, 0, 0, 0, 90; 80)  | (0)   | (3, 25, 30, -) | (1200)  | (2)      | (4000) | (0/20/65535)         | (60)   |

### 4 Auras

### 4.1 Structures

- {Centre} Settlement Core (75 m): workers +20% build rate, -20% resource gather base speed.
- {Library} Power of Knowledge (global): technologies -20% 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.
- {Theatre} Hellenization (global): units -5% training time per theatre owned.
- {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 Team bonuses

### \_

# 5 Technologies

### 5.1 Civilization bonuses

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

### 5.1.1 Carthage

- $\bullet$  Market technologies -30% resource costs and research time;
- Markets -50% wood cost;
- City Walls +25% stone cost, -25% wood cost, +20% build time, +20% health;
- $\bullet$  Traders and Merchant Ships -15% training time.

### 5.1.2 Gauls

- House technologies -40% resource costs and research time;
- Centres 0 stone cost, +150% wood cost, -20% build time, -20% health, -10% territory influence radius;
- Economic Structures -15% build time, -15% health;
- Fortresses -50% stone cost, +100% wood cost;
- Military Structures -20% build time, -20% health;
- $\bullet$  City Walls -10% build time, -10% health;
- Temples 0 stone cost, +200% wood cost, -40% build time, -40% health;
- Healers +2 armour levels;
- Melee Cavalry -15% training time.

### 5.1.3 Kush

- Temple technologies -50% resource costs and research time;
- Economic Structures -70% wood cost, +100% build time.

### 5.1.4 Macedon

- Forge technologies -10% resource costs and research time;
- Military Structures -10% build time;
- Siege Engines -15% construction time.

#### 5.1.5 Mauryas

- Palace technologies -10% resource costs and research time;
- Centres 0 stone cost, +200% wood cost, +5 population bonus, +10 garrison capacity;
- Economic Structures -10% wood cost, -10% build time, -10% health;
- City Walls 0 stone cost, +200% wood cost, -25% build time, -25% health;
- $\bullet$  Temples 0 stone cost, +300% wood cost, -20% build time, -20% health;
- Elephants -15% training time;
- Healers -50% silver cost.

#### 5.1.6 Ptolemies

- Naval technologies -25% resource costs and research time;
- Economic Structures -70% wood cost, +100% build time;
- Healers -20% healing time.

#### 5.1.7 Rome

- Arsenal technologies -50% resource costs and research time;
- Wooden Walls -10% build time;
- City Walls +10% build time, +10% health;
- Catapults +25% wood cost, +20% health, +25% ranged attack crush damage.

### 5.1.8 Seleucids

- Stable technologies -20% resource costs and research time;
- starting Centre +30% resource costs, +30% build time, +5 population bonus, +10 garrison capacity, +30% health, +30% capture points, +11% territory influence and weight, +10 vision range.

### 5.2 Class bonuses

- Champion: +200% metal cost, +50% training time, +4 armour levels, +100% capture attack strength, +50% melee and ranged attack damage.
- Mercenary: -50% training time, +10% health, +25% capture attack strength, +15% melee and ranged attack damage. Instead of any other resources, Mercenary Infantry cost 60 silver, Camel 75, Cavalry 90, Bigae 180, Quadrigae 240, Elephants 300.

# 5.3 Researchable

### **5.3.1** Centre

| file                    | civilization     | required         | $\mathbf{silver}$ | research        | effects                                    |
|-------------------------|------------------|------------------|-------------------|-----------------|--|
| name                    | availability     | $\mathbf{phase}$ | $\mathbf{cost}$   | $\mathbf{time}$ |  |
| phase village           | all              | _                | _                 | _               | Centres +15% territory influence.          |
| phase town              | all              | village          | 400               | 60              | Centres $+15\%$ territory influence.       |
| phase city              | all              | town             | 1000              | 120             | Centres $+15\%$ territory influence.       |
| trade international     | all              | city             | 500               | 75              | Markets $+10\%$ international bonus.       |
| unlock shared los       | all              | village          | 250               | 45              |  |
| unlock shared dropsites | all              | town             | 500               | 60              |  |
| unlock spies            | all              | town             | 750               | 60              |  |
| unlock counterespionage | all              | city             | 1500              | 75              |  |
| archery tradition       | kush, maur, pers | village          | 300               | 45              | Archers $-10\%$ attack time.               |
| colonization            | cart             | town             | 600               | 60              | Centres and Docks $-30\%$ build time.      |
| marching                | mace, rome       | town             | 350               | 60              | Melee Infantry $+10\%$ movement speed.     |
| steel working           | maur             | city             | 600               | 75              | Sabremen, Swordsmen $+20\%$ attack damage. |

# 5.4 Forge

| file              | civilization | required         | $\mathbf{silver}$ | research   | effects                       |
|-------------------|--------------|------------------|-------------------|------------|-------------------------------|
| name              | availability | $\mathbf{phase}$ | $\mathbf{cost}$   | ${f time}$ |                               |
| gather capacity 1 | all          | village          | 300               | 45         | Workers +5 resource capacity. |
| gather capacity 2 | all          | town             | 600               | 60         | Workers +5 resource capacity. |
| gather capacity 3 | all          | city             | 900               | 75         | Workers +5 resource capacity. |
| gather grain 1    | all          | village          | 200               | 45         | Workers $+20\%$ gather rate.  |
| gather grain 2    | all          | town             | 400               | 60         | Workers $+15\%$ gather rate.  |
| gather grain 3    | all          | city             | 600               | 75         | Workers $+10\%$ gather rate.  |
| gather metal 1    | all          | village          | 200               | 45         | Workers $+20\%$ gather rate.  |
| gather metal 2    | all          | town             | 400               | 60         | Workers $+25\%$ gather rate.  |
| gather metal 3    | all          | city             | 600               | 75         | Workers $+30\%$ gather rate.  |
| gather stone 1    | all          | village          | 200               | 45         | Workers $+20\%$ gather rate.  |
| gather stone 2    | all          | town             | 400               | 60         | Workers $+25\%$ gather rate.  |
| gather stone 3    | all          | city             | 600               | 75         | Workers $+30\%$ gather rate.  |
| gather wood 1     | all          | village          | 200               | 45         | Workers $+20\%$ gather rate.  |
| gather wood 2     | all          | town             | 400               | 60         | Workers $+25\%$ gather rate.  |
| gather wood 3     | all          | city             | 600               | 75         | Workers $+30\%$ gather rate.  |

# 5.5 Market

| file         | civilization | required    | $\operatorname{silver}$ | research   | effects                                     |
|--------------|--------------|-------------|-------------------------|------------|---|
| name         | availability | ${f phase}$ | $\mathbf{cost}$         | ${f time}$ |   |
| trade gain 1 | all          | village     | 200                     | 45         | Traders, Merchant Ships +10% trade gain.    |
| trade gain 2 | all          | town        | 400                     | 60         | Traders, Merchant Ships $+10\%$ trade gain. |
| trade gain 3 | all          | city        | 600                     | 75         | Traders, Merchant Ships $+10\%$ trade gain. |

## **5.5.1** Temple

| file                 | civilization | required    | $\operatorname{silver}$ | research        | effects                                   |
|----------------------|--------------|-------------|-------------------------|-----------------|---|
| name                 | availability | ${f phase}$ | $\mathbf{cost}$         | $\mathbf{time}$ |   |
| healer rate 1        | all          | town        | 300                     | 60              | Healers $-20\%$ healing time.             |
| healer rate 2        | all          | city        | 600                     | 75              | Healers $-20\%$ healing time.             |
| heal garrison        | all          | town        | 750                     | 60              | Structures $+1.0$ garrison buff heal.     |
| health regen units   | all          | city        | 1500                    | 75              | Units +1.0 health regeneration rate.      |
| attack soldiers will | all          | city        | 2000                    | 75              | Soldiers, Structures $-10\%$ attack time. |

## **5.5.2** Wonder

| file   | civilization | required         | $\mathbf{silver}$ | research        | effects                      |
|--------|--------------|------------------|-------------------|-----------------|------------------------------|
| name   | availability | $\mathbf{phase}$ | $\mathbf{cost}$   | $\mathbf{time}$ |                              |
| wonder | all          | city             | 3000              | 150             | Enable "Glorious Expansion". |

### 5.5.3 Barracks

| file              | civilization | $\mathbf{required}$ | $\mathbf{silver}$ | research   | effects                               |
|-------------------|--------------|---------------------|-------------------|------------|---------------------------------------|
| name              | availability | ${f phase}$         | $\mathbf{cost}$   | ${f time}$ |                                       |
| training barracks | all          | city                | 500               | 75         | Barracks $-10\%$ batch training time. |
| parade            | sele         | city                | 1000              | 75         | Champions $-20\%$ training time.      |

### **5.5.4** Stable

| file                    | civilization | required              | silver          | research   | effects  |
|-------------------------|--------------|-----------------------|-----------------|------------|--|
| name                    | availability | ${f phase}$           | $\mathbf{cost}$ | ${f time}$ |  |
| training cavalry stable | all          | city                  | 500             | 75         | Stables $-10\%$ batch training time.   |
| armour cavalry          | all          | $\operatorname{city}$ | 600             | 75         | Cavalry $+1$ crush, hack, and thrust armour and $+3$ pierce armour, $-3\%$ movement speed. |
| attack cavalry javelin  | all          | town                  | 450             | 60         | Cavalry Javelineers $+10\%$ attack damage, $-10\%$ spread.                                 |
| attack cavalry spear    | not maur     | town                  | 450             | 60         | Cavalry Spearmen, Lancers $+20\%$ attack damage.   |
| speed horse             | all          | village               | 300             | 45         | Cavalry $+10\%$ movement speed.  |
| nisean horses           | sele         | city                  | 350             | 75         | Melee Cavalry $+20\%$ food cost, $+20\%$ health.   |

## 5.5.5 Elephant Stable

| ${f file}$               | civilization | required         | $\mathbf{silver}$ | research        | effects                                       |
|--------------------------|--------------|------------------|-------------------|-----------------|---|
| name                     | availability | $\mathbf{phase}$ | $\mathbf{cost}$   | $\mathbf{time}$ |   |
| training elephant stable | all          | city             | 500               | 75              | Elephant Stables $-10\%$ batch training time. |

### 5.5.6 Arsenal

| file             | civilization | required         | $\mathbf{silver}$ | research   | effects                               |
|------------------|--------------|------------------|-------------------|------------|---------------------------------------|
| name             | availability | $\mathbf{phase}$ | $\mathbf{cost}$   | ${f time}$ |                                       |
| training arsenal | all          | city             | 500               | 75         | Arsenals $-10\%$ batch training time. |

# 5.5.7 Shipyard

| file           | civilization | required    | $\mathbf{silver}$ | research        | effects                                       |
|----------------|--------------|-------------|-------------------|-----------------|---|
| name           | availability | ${f phase}$ | $\mathbf{cost}$   | $\mathbf{time}$ |   |
| training naval | all          | city        | 500               | 75              | Naval Structures $-10\%$ batch training time. |
| armour ship 1  | all          | town        | 300               | 60              | Warships $+2$ armour, $-2\%$ movement speed.  |
| armour ship 2  | all          | city        | 600               | 75              | Warships $+2$ armour, $-2\%$ movement speed.  |
| armour ship 3  | all          | metropolis  | 900               | 90              | Warships $+2$ armour, $-2\%$ movement speed.  |