

SID MEIER'S
CIVILIZATION
BEYOND THE SWORD

REFERENCE GUIDE

ENGLISH VERSION

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CIVILIZATION IV: Beyond the Sword

Reference Guide

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Civilization **Free Techs** **Unique Unit** **Uniq. Building** **Leaders** **Traits**

	American Empire	Fishing Agriculture	Navy Seal (Marine)	Mall (Supermarket)	Lincoln Roosevelt Washington	<i>Philosophical, Charismatic Industrious, Organized Expansive, Charismatic</i>
	Arabian Empire	Mysticism Wheel	Camel Archer (Knight)	Madrasa (Library)	Saladin	<i>Spiritual, Protective</i>
	Aztec Empire	Mysticism Hunting	Jaguar (Swordsman)	Sacrificial Altar (Courthouse)	Montezuma	<i>Aggressive, Spiritual</i>
	Babylonian Empire	Wheel Agriculture	Bowman (Archer)	Garden (Colosseum)	Hammurabi	<i>Aggressive, Organized</i>
	Byzantine Empire	Mysticism Wheel	Cataphract (Knight)	Hippodrome (Theatre)	Justinian I	<i>Spiritual, Imperialistic</i>
	Carthaginian Empire	Fishing Mining	Numid. Cavalry (Horse Archer)	Cothon (Harbor)	Hannibal	<i>Financial, Charismatic</i>
	Celtic Empire	Mysticism Hunting	Gallic Warrior (Swordsman)	Dun (Walls)	Boudica Brennus	<i>Aggressive, Charismatic Spiritual, Charismatic</i>
	Chinese Empire	Agriculture Mining	Cho-Ko-Nu (Crossbowman)	Pavilion (Theatre)	Mao Zedong Qin Shi Huang	<i>Expansive, Protective Industrious, Protective</i>
	Dutch Empire	Fishing Agriculture	East Indiaman (Galleon)	Dike (Levee)	Willem van Oranje	<i>Creative, Financial</i>
	Egyptian Empire	Wheel Agriculture	War Chariot (Chariot)	Obelisk (Monument)	Hatshepsut Ramesses II	<i>Spiritual, Creative Spiritual, Industrious</i>
	English Empire	Fishing Mining	Redcoat (Rifleman)	Stock Exchange (Bank)	Churchill Elizabeth Victoria	<i>Charismatic, Protective Philosophical, Financial Financial, Imperialistic</i>
	Ethiopian Empire	Hunting Mining	Oromo Warrior (Musketman)	Stele (Monument)	Zara Yaqob	<i>Creative, Organized</i>
	French Empire	Wheel Agriculture	Musketeer (Musketman)	Salon (Observatory)	De Gaulle Louis XIV Napoleon	<i>Industrious, Charismatic Industrious, Creative Organized, Charismatic</i>
	German Empire	Hunting Mining	Panzer (Tank)	Assembly Plant (Factory)	Bismarck Frederick	<i>Expansive, Industrious Philosophical, Organized</i>
	Greek Empire	Fishing Hunting	Phalanx (Axeman)	Odeon (Colosseum)	Alexander Pericles	<i>Philosophical, Aggressive Philosophical, Creative</i>
	Holy Roman Empire	Mysticism Hunting	Landsknecht (Pikeman)	Rathaus (Courthouse)	Charlemagne	<i>Protective, Imperialistic</i>
	Incan Empire	Mysticism Agriculture	Quechua (Warrior)	Terrace (Granary)	Huayna Capac	<i>Industrious, Financial</i>

	Civilization	Free Techs	Unique Unit	Uniq. Building	Leaders	Traits
	Indian Empire	Mysticism Mining	Fast Worker (Worker)	Mausoleum (Jail)	Asoka Gandhi	<i>Spiritual, Organized Philosophical, Spiritual</i>
	Japanese Empire	Fishing Wheel	Samurai (Maceman)	Shale Plant (Coal Plant)	Tokugawa	<i>Aggressive, Protective</i>
	Khmer Empire	Hunting Mining	Ballista Elephant (War Elephant)	Baray (Aqueduct)	Suryavarman II	<i>Expansive, Creative</i>
	Korean Empire	Mysticism Mining	Hwacha (Catapult)	Seowon (University)	Wang Kon	<i>Financial, Protective</i>
	Malinese Empire	Wheel Mining	Skirmisher (Archer)	Mint (Forge)	Mansa Musa	<i>Spiritual, Financial</i>
	Maya Empire	Mysticism Mining	Holkan (Spearman)	Ball Court (Colosseum)	Pacal II	<i>Expansive, Financial</i>
	Mongolian Empire	Wheel Hunting	Keshik (Horse Archer)	Ger (Stable)	Genghis Khan Kublai Khan	<i>Aggressive, Imperialistic Aggressive, Creative</i>
	Native American Empire	Fishing Agriculture	Dog Soldier (Axeman)	Totem Pole (Monument)	Sitting Bull	<i>Philosophical, Protective</i>
	Ottoman Empire	Wheel Agriculture	Janissary (Musketman)	Hamмам (Aqueduct)	Mehmed II Suleiman	<i>Expansive, Organized Philosophical, Imperialistic</i>
	Persian Empire	Agriculture Hunting	Immortal (Chariot)	Apothecary (Grocer)	Cyrus Darius I	<i>Charismatic, Imperialistic Financial, Organized</i>
	Portuguese Empire	Fishing Mining	Carrack (Caravel)	Feitoria (Customs House)	Joao II	<i>Expansive, Imperialistic</i>
	Roman Empire	Fishing Mining	Praetorian (Swordsman)	Forum (Market)	Augustus Caesar Julius Caesar	<i>Industrious, Imperialistic Organized, Imperialistic</i>
	Russian Empire	Hunting Mining	Cossack (Cavalry)	Research Inst. (Laboratory)	Catherine Peter Stalin	<i>Creative, Imperialistic Philosophical, Expansive Aggressive, Industrious</i>
	Spanish Empire	Mysticism Fishing	Conquistador (Cuirassier)	Citadel (Castle)	Isabella	<i>Spiritual, Expansive</i>
	Sumerian Empire	Wheel Agriculture	Vulture (Axeman)	Ziggurat (Courthouse)	Gilgamesh	<i>Creative, Protective</i>
	Viking Empire	Fishing Hunting	Berserker (Maceman)	Trading Post (Lighthouse)	Ragnar	<i>Aggressive, Financial</i>
	Zulu Empire	Agriculture Hunting	Impi (Spearman)	Ikhanda (Barracks)	Shaka	<i>Aggressive, Expansive</i>

Leaders, Traits, and Favourites

AI behaviour*



Alexander

Greek Empire

Philosophical, Aggressive
fav. civic: Vassalage
fav. religion: none

favors: military, growth
builds wonders: sometimes
trains units: very often
aggression level: very high
espionage level: normal
tech trading: willing, 30%

base peace weight: 0
peace probability (%): 0/20/80/100
attack courage: very high
will raze city: never
refuses to talk delay: medium
warmonger respect: 2



Asoka

Indian Empire

Spiritual, Organized
fav. civic: Free Religion
fav. religion: Buddhism

favors: religion, science
builds wonders: very often
trains units: sometimes
aggression level: medium
espionage level: medium
tech trading: moderate, 20%

base peace weight: 8
peace probability (%): 20/70/100/100
attack courage: normal
will raze city: never
refuses to talk delay: moderate
warmonger respect: 0



Augustus Caesar

Roman Empire

Imperialistic, Industrious
fav. civic: Representation
fav. religion: none

favors: production, military
builds wonders: very often
trains units: moderate
aggression level: medium
espionage level: normal
tech trading: averse, 40%

base peace weight: 8
peace probability (%): 20/70/100/100
attack courage: normal
will raze city: never
refuses to talk delay: medium
warmonger respect: 1



Bismarck

German Empire

Expansive, Industrious
fav. civic: Nationhood
fav. religion: Christianity

favors: military
builds wonders: often
trains units: often
aggression level: medium
espionage level: high
tech trading: willing, 70%

base peace weight: 6
peace probability (%): 10/50/90/100
attack courage: normal
will raze city: never
refuses to talk delay: medium
warmonger respect: 1



Boudica

Celtic Empire

Charismatic, Aggressive
fav. civic: Universal Suffrage
fav. religion: none

favors: military, growth
builds wonders: very rarely
trains units: often
aggression level: very high
espionage level: low
tech trading: moderate, 30%

base peace weight: 2
peace probability (%): 0/40/100/100
attack courage: very high
will raze city: rarely
refuses to talk delay: long
warmonger respect: 1



Brennus

Celtic Empire

Spiritual, Charismatic
fav. civic: Organized Religion
fav. religion: none

favors: military, religion
builds wonders: very rarely
trains units: often
aggression level: high
espionage level: intensive
tech trading: willing, 40%

base peace weight: 0
peace probability (%): 20/70/100/100
attack courage: very high
will raze city: often
refuses to talk delay: long
warmonger respect: 2



Catherine

Russian Empire

Creative, Imperialistic
fav. civic: Hereditary Rule
fav. religion: Christianity

favors: culture, military
builds wonders: often
trains units: moderate
aggression level: high
espionage level: very high
tech trading: averse, 20%

base peace weight: 2
peace probability (%): 0/20/80/100
attack courage: high
will raze city: never
refuses to talk delay: moderate
warmonger respect: 2

All data based on XML code:

Build wonders refers to World Wonders (scale: extreme, very often, often, sometimes, rarely, very rarely, never);

Trains units refers to military unit training probability at peace (scale: extreme, very often, often, moderate, sometimes, rarely);

Aggression level refers to war planing probability (scale: very high, high, medium, low, quite low, very low);

Espionage level refers to espionage activity (scale: extreme, very high, high, intensive, normal, medium, moderate, low, very low, minimal);

Tech trading refers to technology trading behaviour (scale: very averse – requires higher AI attitude, averse, moderate, willing), percentages refer to known technologies AI would want to trade (average);

Base peace weight (scale: 0 – most warlike, 10 – most peaceful);

Peace probability (percentages are for Annoyed / Cautious / Pleased / Friendly relations. Each round, every AI will run a Declaration of War check against every other civilization. This check involves an evaluation of relative military strengths, defensive pacts, logistical considerations (shared borders, ocean crossings), existing conflicts, etc. The Peace Probability percentages above indicate the likelihood that an AI will ignore a decision to declare war due to diplomatic factors. Note: While a decision to go to war is immediate, the actual declaration may take a dozen turns or more);

[thanks for the explanation to ori, CFC]

Diplomatic attitudes**

base: 0, share war: +1 (max. +4)
 favourite civic: +1 (max. +2)
 same religion: +1 (max. +4)
 different religion: -1
 close cultural borders: max. -4
 worse/better rank difference: -2/0

base: 1, share war: +1 (max. +2)
 favourite civic: +1 (max. +4)
 same religion: +1 (max. +7)
 different religion: 0
 close cultural borders: max. -2
 worse/better rank difference: 0/3

base: 0, share war: +1 (max. +3)
 favourite civic: +1 (max. +4)
 same religion: +1 (max. +3)
 different religion: 0
 close cultural borders: max. -4
 worse/better rank difference: -1/+1

base: 1, share war: +1 (max. +3)
 favourite civic: +1 (max. +2)
 same religion: +1 (max. +3)
 different religion: 0
 close cultural borders: max. -4
 worse/better rank difference: -1/0

base: 0, share war: +1 (max. +5)
 favourite civic: +1 (max. +5)
 same religion: +1 (max. +3)
 different religion: -1
 close cultural borders: max. -3
 worse/better rank difference: -1/0

base: -1, share war: +1 (max. +4)
 favourite civic: +1 (max. +3)
 same religion: +1 (max. +6)
 different religion: -2
 close cultural borders: max. -2
 worse/better rank difference: -2/0

base: 1, share war: +1 (max. +2)
 favourite civic: +1 (max. +3)
 same religion: +1 (max. +5)
 different religion: -2
 close cultural borders: max. -4
 worse/better rank difference: -2/0

Diplomatic relationship at or below which trades will be refused***

technology: annoyed
 strategic bonus: cautious
 happiness bonus: annoyed
 health bonus: annoyed
 maps: pleased
 open borders: annoyed

technology: annoyed
 strategic bonus: annoyed
 happiness bonus: furious
 health bonus: furious
 maps: annoyed
 open borders: furious

technology: annoyed
 strategic bonus: annoyed
 happiness bonus: furious
 health bonus: furious
 maps: annoyed
 open borders: furious

technology: annoyed
 strategic bonus: cautious
 happiness bonus: annoyed
 health bonus: furious
 maps: cautious
 open borders: annoyed

technology: annoyed
 strategic bonus: cautious
 happiness bonus: annoyed
 health bonus: furious
 maps: annoyed
 open borders: annoyed

technology: annoyed
 strategic bonus: cautious
 happiness bonus: annoyed
 health bonus: furious
 maps: cautious
 open borders: annoyed

technology: none
 strategic bonus: cautious
 happiness bonus: annoyed
 health bonus: furious
 maps: pleased
 open borders: furious

declare war: annoyed, declare war on X: pleased
 stop trading: cautious, stop trading with X: cautious
 adopt civic: pleased, convert religion: cautious
 defensive pact: pleased
 permanent alliance: pleased
 vassal state: pleased

declare war: cautious, declare war on X: cautious
 stop trading: pleased, stop trading with X: annoyed
 adopt civic: cautious, convert religion: cautious
 defensive pact: pleased
 permanent alliance: pleased
 vassal state: cautious

declare war: pleased, declare war on X: cautious
 stop trading: cautious, stop trading with X: annoyed
 adopt civic: cautious, convert religion: cautious
 defensive pact: pleased
 permanent alliance: pleased
 vassal state: pleased

declare war: cautious, declare war on X: pleased
 stop trading: cautious, stop trading with X: annoyed
 adopt civic: cautious, convert religion: cautious
 defensive pact: pleased
 permanent alliance: pleased
 vassal state: pleased

declare war: pleased, declare war on X: cautious
 stop trading: pleased, stop trading with X: cautious
 adopt civic: cautious, convert religion: cautious
 defensive pact: cautious
 permanent alliance: pleased
 vassal state: pleased

declare war: annoyed, declare war on X: cautious
 stop trading: annoyed, stop trading with X: cautious
 adopt civic: cautious, convert religion: pleased
 defensive pact: pleased
 permanent alliance: pleased
 vassal state: pleased

declare war: pleased, declare war on X: friendly
 stop trading: annoyed, stop trading with X: annoyed
 adopt civic: annoyed, convert religion: cautious
 defensive pact: cautious
 permanent alliance: pleased
 vassal state: annoyed

Alexander

Asoka

Augustus Caesar

Bismarck

Boudica

Brennus

Catherine

Attack courage refers to AI combat odds (extreme - more AI attacks at lower combat odds, very high, high, normal);
Razing city probability (scale: never - 0%, almost never - 5%, very rarely - 10%, rarely - 20%, sometimes - 25%, often - 50%, very often - 75%);

Refuses to talk delay (scale: short, moderate, medium, long, very long);

Warmonger respect refers to a bonus on relations between two leaders - the smaller of both values is the modifier (scale: 0-2).

** Based on XML code; represents the diplomatic consequences of your religion and civics choices, as well as random events.

Base - attitude at first contact, modified by Difficulty Level (see: page 74);

Different religion - there are no limits for negative attitudes, in game time could be more than values given;

Other considerations (the same for all leaders): open borders, bonus trade, defensive pact: +2 each; lost war: -1

*** Based on XML code (scale: friendly, pleased, cautious, annoyed, furious).

Also (for all leaders) **demand tribute** or **give help** at or below cautious will be refused.

Leaders, Traits, and Favourites

AI behaviour*



Charlemagne

Holy Roman Empire

Imperialistic, Protective
fav. civic: Vassalage
fav. religion: Christianity

favors: military, religion
builds wonders: rarely
trains units: often
aggression level: high
espionage level: normal
tech trading: averse, 30%

base peace weight: 6
peace probability (%): 20/60/100/100
attack courage: normal
will raze city: never
refuses to talk delay: medium
warmonger respect: 1



Churchill

English Empire

Charismatic, Protective
fav. civic: Nationhood
fav. religion: Christianity

favors: military, gold
builds wonders: very rarely
trains units: moderate
aggression level: medium
espionage level: high
tech trading: averse, 30%

base peace weight: 6
peace probability (%): 20/70/100/100
attack courage: normal
will raze city: never
refuses to talk delay: medium
warmonger respect: 0



Cyrus

Persian Empire

Charismatic, Imperialistic
fav. civic: Vassalage
fav. religion: none

favors: military, growth
builds wonders: very often
trains units: often
aggression level: high
espionage level: normal
tech trading: moderate, 30%

base peace weight: 3
peace probability (%): 20/70/100/100
attack courage: high
will raze city: never
refuses to talk delay: medium
warmonger respect: 0



Darius I

Persian Empire

Organized, Financial
fav. civic: Free Religion
fav. religion: none

favors: gold, growth
builds wonders: very often
trains units: often
aggression level: medium
espionage level: normal
tech trading: moderate, 30%

base peace weight: 8
peace probability (%): 20/70/100/100
attack courage: normal
will raze city: never
refuses to talk delay: medium
warmonger respect: 0



De Gaulle

French Empire

Industrious, Charismatic
fav. civic: Nationhood
fav. religion: Christianity

favors: production, growth
builds wonders: very rarely
trains units: moderate
aggression level: high
espionage level: intensive
tech trading: moderate, 40%

base peace weight: 0
peace probability (%): 20/70/100/100
attack courage: normal
will raze city: never
refuses to talk delay: short
warmonger respect: 2



Elizabeth

English Empire

Philosophical, Financial
fav. civic: Free Religion
fav. religion: Christianity

favors: gold, culture
builds wonders: sometimes
trains units: sometimes
aggression level: quite low
espionage level: intensive
tech trading: averse, 40%

base peace weight: 9
peace probability (%): 10/50/90/100
attack courage: normal
will raze city: never
refuses to talk delay: medium
warmonger respect: 0



Frederick

German Empire

Philosophical, Organized
fav. civic: Universal Suffrage
fav. religion: Christianity

favors: production
builds wonders: sometimes
trains units: sometimes
aggression level: medium
espionage level: medium
tech trading: moderate, 30%

base peace weight: 8
peace probability (%): 20/70/100/100
attack courage: normal
will raze city: never
refuses to talk delay: moderate
warmonger respect: 0



Gandhi

Indian Empire

Spiritual, Philosophical
fav. civic: Universal Suffrage
fav. religion: Hinduism

favors: culture
builds wonders: very rarely
trains units: rarely
aggression level: very low
espionage level: minimal
tech trading: averse, 20%

base peace weight: 10
peace probability (%): 20/70/100/100
attack courage: normal
will raze city: never
refuses to talk delay: moderate
warmonger respect: 0



Genghis Khan

Mongolian Empire

Aggressive, Imperialistic
fav. civic: Police State
fav. religion: none

favors: military
builds wonders: very rarely
trains units: very often
aggression level: very high
espionage level: normal
tech trading: willing, 40%

base peace weight: 0
peace probability (%): 10/50/90/100
attack courage: very high
will raze city: very often
refuses to talk delay: long
warmonger respect: 2

Diplomatic attitudes**

base: 0, share war: +1 (max. +2)
 favourite civic: +1 (max. +4)
 same religion: +1 (max. +6)
 different religion: -2
 close cultural borders: max. -3
 worse/better rank difference: -1/+1

base: 0, share war: +1 (max. +4)
 favourite civic: +1 (max. +5)
 same religion: +1 (max. +3)
 different religion: -1
 close cultural borders: max. -2
 worse/better rank difference: 0/0

base: 1, share war: +1 (max. +3)
 favourite civic: +1 (max. +2)
 same religion: +1 (max. +4)
 different religion: 0
 close cultural borders: max. -2
 worse/better rank difference: 0/2

base: 1, share war: +1 (max. +3)
 favourite civic: +1 (max. +2)
 same religion: +1 (max. +4)
 different religion: 0
 close cultural borders: max. -2
 worse/better rank difference: -1/+1

base: -1, share war: +1 (max. +6)
 favourite civic: +1 (max. +4)
 same religion: +1 (max. +3)
 different religion: 0
 close cultural borders: max. -2
 worse/better rank difference: -2/+2

base: 1, share war: +1 (max. +2)
 favourite civic: +1 (max. +4)
 same religion: +1 (max. +4)
 different religion: 0
 close cultural borders: max. -3
 worse/better rank difference: 0/+1

base: 1, share war: +1 (max. +3)
 favourite civic: +1 (max. +3)
 same religion: +1 (max. +4)
 different religion: -1
 close cultural borders: max. -2
 worse/better rank difference: 0/+2

base: 2, share war: +1 (max. +2)
 favourite civic: +1 (max. +6)
 same religion: +1 (max. +4)
 different religion: -1
 close cultural borders: max. -2
 worse/better rank difference: 0/+1

base: -1, share war: +1 (max. +4)
 favourite civic: +1 (max. +3)
 same religion: +1 (max. +4)
 different religion: 0
 close cultural borders: max. -4
 worse/better rank difference: -1/+2

Diplomatic relationship at or below which trades will be refused**

technology: annoyed
 strategic bonus: annoyed
 happiness bonus: furious
 health bonus: furious
 maps: cautious
 open borders: annoyed

technology: annoyed
 strategic bonus: annoyed
 happiness bonus: furious
 health bonus: furious
 maps: cautious
 open borders: annoyed

technology: annoyed
 strategic bonus: annoyed
 happiness bonus: furious
 health bonus: annoyed
 maps: annoyed
 open borders: furious

technology: annoyed
 strategic bonus: annoyed
 happiness bonus: furious
 health bonus: annoyed
 maps: annoyed
 open borders: furious

technology: annoyed
 strategic bonus: annoyed
 happiness bonus: annoyed
 health bonus: annoyed
 maps: annoyed
 open borders: annoyed

technology: furious
 strategic bonus: cautious
 happiness bonus: annoyed
 health bonus: furious
 maps: friendly
 open borders: furious

technology: furious
 strategic bonus: cautious
 happiness bonus: furious
 health bonus: annoyed
 maps: cautious
 open borders: furious

technology: none
 strategic bonus: annoyed
 happiness bonus: none
 health bonus: none
 maps: none
 open borders: none

technology: annoyed
 strategic bonus: cautious
 happiness bonus: annoyed
 health bonus: annoyed
 maps: pleased
 open borders: annoyed

declare war: cautious, declare war on X: cautious
 stop trading: cautious, stop trading with X: annoyed
 adopt civic: cautious, convert religion: pleased
 defensive pact: pleased
 permanent alliance: pleased
 vassal state: pleased

declare war: cautious, declare war on X: cautious
 stop trading: cautious, stop trading with X: annoyed
 adopt civic: cautious, convert religion: cautious
 defensive pact: pleased
 permanent alliance: pleased
 vassal state: pleased

declare war: pleased, declare war on X: annoyed
 stop trading: pleased, stop trading with X: cautious
 adopt civic: cautious, convert religion: cautious
 defensive pact: cautious
 permanent alliance: pleased
 vassal state: pleased

declare war: pleased, declare war on X: annoyed
 stop trading: pleased, stop trading with X: cautious
 adopt civic: cautious, convert religion: cautious
 defensive pact: cautious
 permanent alliance: pleased
 vassal state: pleased

declare war: cautious, declare war on X: pleased
 stop trading: annoyed, stop trading with X: cautious
 adopt civic: cautious, convert religion: cautious
 defensive pact: cautious
 permanent alliance: cautious
 vassal state: pleased

declare war: pleased, declare war on X: cautious
 stop trading: pleased, stop trading with X: annoyed
 adopt civic: cautious, convert religion: annoyed
 defensive pact: pleased
 permanent alliance: pleased
 vassal state: pleased

declare war: cautious, declare war on X: cautious
 stop trading: cautious, stop trading with X: cautious
 adopt civic: pleased, convert religion: cautious
 defensive pact: pleased
 permanent alliance: pleased
 vassal state: annoyed

declare war: pleased, declare war on X: annoyed
 stop trading: pleased, stop trading with X: cautious
 adopt civic: cautious, convert religion: annoyed
 defensive pact: pleased
 permanent alliance: pleased
 vassal state: annoyed

declare war: annoyed, declare war on X: pleased
 stop trading: annoyed, stop trading with X: cautious
 adopt civic: cautious, convert religion: cautious
 defensive pact: pleased
 permanent alliance: pleased
 vassal state: pleased

Charlemagne

Churchill

Cyrus

Darius I

De Gaulle

Elizabeth

Frederick

Gandhi

Genghis Khan

Leaders, Traits, and Favourites

AI behaviour*



Gilgamesh

Sumerian Empire

Protective, Creative
fav. civic: Hereditary Rule
fav. religion: none

favors: military, culture
builds wonders: very often
trains units: often
aggression level: high
espionage level: normal
tech trading: averse, 20%

base peace weight: 2
peace probability (%): 10/60/90/100
attack courage: very high
will raze city: never
refuses to talk delay: medium
warmonger respect: 2



Hammurabi

Babylonian Empire

Organized, Aggressive
fav. civic: Bureaucracy
fav. religion: none

favors: culture
builds wonders: very often
trains units: often
aggression level: medium
espionage level: normal
tech trading: moderate, 40%

base peace weight: 8
peace probability (%): 20/70/100/100
attack courage: normal
will raze city: never
refuses to talk delay: long
warmonger respect: 1



Hannibal

Carthaginian Empire

Financial, Charismatic
fav. civic: Free Market
fav. religion: none

favors: military, gold
builds wonders: very rarely
trains units: often
aggression level: high
espionage level: normal
tech trading: moderate, 30%

base peace weight: 2
peace probability (%): 20/70/100/100
attack courage: very high
will raze city: very rarely
refuses to talk delay: medium
warmonger respect: 2



Hatshepsut

Egyptian Empire

Spiritual, Creative
fav. civic: Organized Religion
fav. religion: none

favors: culture, religion
builds wonders: very often
trains units: sometimes
aggression level: medium
espionage level: normal
tech trading: moderate, 30%

base peace weight: 9
peace probability (%): 20/70/100/100
attack courage: normal
will raze city: never
refuses to talk delay: moderate
warmonger respect: 0



Huayna Capac

Incan Empire

Industrious, Financial
fav. civic: Hereditary Rule
fav. religion: none

favors: gold, production
builds wonders: very often
trains units: moderate
aggression level: high
espionage level: medium
tech trading: willing, 30%

base peace weight: 2
peace probability (%): 10/50/90/100
attack courage: normal
will raze city: very rarely
refuses to talk delay: medium
warmonger respect: 2



Isabella

Spanish Empire

Spiritual, Expansive
fav. civic: Theocracy
fav. religion: Christianity

favors: religion
builds wonders: sometimes
trains units: moderate
aggression level: medium
espionage level: high
tech trading: willing, 60%

base peace weight: 6
peace probability (%): 10/50/90/100
attack courage: normal
will raze city: sometimes
refuses to talk delay: long
warmonger respect: 1



Joao II

Portuguese Empire

Imperialistic, Expansive
fav. civic: Hereditary Rule
fav. religion: Christianity

favors: science, military
builds wonders: sometimes
trains units: moderate
aggression level: medium
espionage level: intensive
tech trading: averse, 40%

base peace weight: 6
peace probability (%): 20/70/100/100
attack courage: normal
will raze city: never
refuses to talk delay: medium
warmonger respect: 1



Julius Caesar

Roman Empire

Organized, Imperialistic
fav. civic: Representation
fav. religion: none

favors: military, production
builds wonders: sometimes
trains units: often
aggression level: high
espionage level: normal
tech trading: willing, 40%

base peace weight: 4
peace probability (%): 10/50/90/100
attack courage: high
will raze city: never
refuses to talk delay: medium
warmonger respect: 1



Justinian I

Byzantine Empire

Spiritual, Imperialistic
fav. civic: Theocracy
fav. religion: Christianity

favors: religion, military
builds wonders: often
trains units: very often
aggression level: high
espionage level: intensive
tech trading: averse, 30%

base peace weight: 4
peace probability (%): 30/80/100/100
attack courage: high
will raze city: never
refuses to talk delay: long
warmonger respect: 1

Diplomatic attitudes**

base: 0, share war: +1 (max. +3)
 favourite civic: +1 (max. +4)
 same religion: +1 (max. +4)
 different religion: -1
 close cultural borders: max. -3
 worse/better rank difference: -2/0

base: 0, share war: +1 (max. +3)
 favourite civic: +1 (max. +4)
 same religion: +1 (max. +5)
 different religion: -1
 close cultural borders: max. -2
 worse/better rank difference: 0/+1

base: 0, share war: +1 (max. +3)
 favourite civic: +1 (max. +2)
 same religion: +1 (max. +4)
 different religion: -1
 close cultural borders: max. -3
 worse/better rank difference: -1/0

base: 1, share war: +1 (max. +3)
 favourite civic: +1 (max. +2)
 same religion: +1 (max. +5)
 different religion: -2
 close cultural borders: max. -2
 worse/better rank difference: -1/+2

base: 0, share war: +1 (max. +3)
 favourite civic: +1 (max. +4)
 same religion: +1 (max. +5)
 different religion: -2
 close cultural borders: max. -3
 worse/better rank difference: -1/+1

base: -1, share war: +1 (max. +2)
 favourite civic: +1 (max. +3)
 same religion: +1 (max. +6)
 different religion: -2
 close cultural borders: max. -3
 worse/better rank difference: -1/+1

base: 0, share war: +1 (max. +2)
 favourite civic: +1 (max. +3)
 same religion: +1 (max. +3)
 different religion: -1
 close cultural borders: max. -2
 worse/better rank difference: 0/+2

base: 0, share war: +1 (max. +3)
 favourite civic: +1 (max. +3)
 same religion: +1 (max. +3)
 different religion: -1
 close cultural borders: max. -4
 worse/better rank difference: -1/0

base: 1, share war: +1 (max. +3)
 favourite civic: +1 (max. +4)
 same religion: +1 (max. +6)
 different religion: -2
 close cultural borders: max. -2
 worse/better rank difference: -2/0

Diplomatic relationship at or below which trades will be refused**

technology: furious
 strategic bonus: cautious
 happiness bonus: annoyed
 health bonus: annoyed
 maps: annoyed
 open borders: annoyed

technology: annoyed
 strategic bonus: cautious
 happiness bonus: annoyed
 health bonus: annoyed
 maps: annoyed
 open borders: annoyed

technology: annoyed
 strategic bonus: cautious
 happiness bonus: annoyed
 health bonus: furious
 maps: annoyed
 open borders: annoyed

technology: furious
 strategic bonus: cautious
 happiness bonus: furious
 health bonus: furious
 maps: furious
 open borders: furious

technology: annoyed
 strategic bonus: cautious
 happiness bonus: furious
 health bonus: furious
 maps: cautious
 open borders: annoyed

technology: annoyed
 strategic bonus: cautious
 happiness bonus: annoyed
 health bonus: annoyed
 maps: pleased
 open borders: annoyed

technology: annoyed
 strategic bonus: cautious
 happiness bonus: annoyed
 health bonus: annoyed
 maps: pleased
 open borders: annoyed

technology: annoyed
 strategic bonus: cautious
 happiness bonus: furious
 health bonus: annoyed
 maps: pleased
 open borders: annoyed

technology: furious
 strategic bonus: cautious
 happiness bonus: furious
 health bonus: furious
 maps: annoyed
 open borders: furious

declare war: pleased, declare war on X: cautious
 stop trading: pleased, stop trading with X: cautious
 adopt civic: cautious, convert religion: cautious
 defensive pact: pleased
 permanent alliance: pleased
 vassal state: pleased

declare war: cautious, declare war on X: annoyed
 stop trading: pleased, stop trading with X: cautious
 adopt civic: cautious, convert religion: cautious
 defensive pact: pleased
 permanent alliance: pleased
 vassal state: pleased

declare war: cautious, declare war on X: cautious
 stop trading: cautious, stop trading with X: annoyed
 adopt civic: cautious, convert religion: cautious
 defensive pact: pleased
 permanent alliance: pleased
 vassal state: pleased

declare war: cautious, declare war on X: cautious
 stop trading: cautious, stop trading with X: cautious
 adopt civic: cautious, convert religion: cautious
 defensive pact: pleased
 permanent alliance: pleased
 vassal state: cautious

declare war: pleased, declare war on X: cautious
 stop trading: cautious, stop trading with X: cautious
 adopt civic: cautious, convert religion: cautious
 defensive pact: pleased
 permanent alliance: pleased
 vassal state: cautious

declare war: cautious, declare war on X: pleased
 stop trading: cautious, stop trading with X: cautious
 adopt civic: cautious, convert religion: pleased
 defensive pact: pleased
 permanent alliance: pleased
 vassal state: pleased

declare war: cautious, declare war on X: annoyed
 stop trading: pleased, stop trading with X: annoyed
 adopt civic: cautious, convert religion: cautious
 defensive pact: pleased
 permanent alliance: pleased
 vassal state: cautious

declare war: cautious, declare war on X: pleased
 stop trading: cautious, stop trading with X: cautious
 adopt civic: cautious, convert religion: cautious
 defensive pact: pleased
 permanent alliance: pleased
 vassal state: pleased

declare war: pleased, declare war on X: cautious
 stop trading: cautious, stop trading with X: annoyed
 adopt civic: cautious, convert religion: friendly
 defensive pact: pleased
 permanent alliance: pleased
 vassal state: pleased

Gilgamesh

Hammurabi

Hannibal

Hatshepsut

Huayna Capac

Isabella

Joaquín

Julius Caesar

Justinian I

Leaders

Leaders, Traits, and Favourites

AI behaviour*



Kublai Khan

Mongolian Empire

Aggressive, Creative
fav. civic: Bureaucracy
fav. religion: Buddhism

favors: military, culture
builds wonders: often
trains units: moderate
aggression level: high
espionage level: normal
tech trading: moderate, 30%

base peace weight: 1
peace probability (%): 10/50/90/100
attack courage: normal
will raze city: sometimes
refuses to talk delay: medium
warmonger respect: 2



Lincoln

American Empire

Philosophical, Charismatic
fav. civic: Emancipation
fav. religion: Christianity

favors: science, growth
builds wonders: often
trains units: moderate
aggression level: quite low
espionage level: intensive
tech trading: moderate, 30%

base peace weight: 9
peace probability (%): 40/80/100/100
attack courage: normal
will raze city: never
refuses to talk delay: moderate
warmonger respect: 0



Louis XIV

French Empire

Industrious, Creative
fav. civic: Hereditary Rule
fav. religion: Christianity

favors: culture, military
builds wonders: extremely
trains units: often
aggression level: medium
espionage level: high
tech trading: willing, 30%

base peace weight: 1
peace probability (%): 0/20/80/100
attack courage: high
will raze city: never
refuses to talk delay: moderate
warmonger respect: 2



Mansa Musa

Malinese Empire

Spiritual, Financial
fav. civic: Free Market
fav. religion: Islam

favors: gold, religion
builds wonders: sometimes
trains units: moderate
aggression level: very low
espionage level: very low
tech trading: very averse, 0%

base peace weight: 9
peace probability (%): 10/50/90/100
attack courage: normal
will raze city: never
refuses to talk delay: moderate
warmonger respect: 0



Mao Zedong

Chinese Empire

Expansive, Protective
fav. civic: State Property
fav. religion: none

favors: growth, production
builds wonders: very rarely
trains units: moderate
aggression level: medium
espionage level: very high
tech trading: willing, 50%

base peace weight: 1
peace probability (%): 0/30/80/100
attack courage: high
will raze city: never
refuses to talk delay: medium
warmonger respect: 2



Mehmed II

Ottoman Empire

Expansive, Organized
fav. civic: Vassalage
fav. religion: Islam

favors: military, culture
builds wonders: sometimes
trains units: extreme
aggression level: high
espionage level: intensive
tech trading: willing, 40%

base peace weight: 2
peace probability (%): 20/70/100/100
attack courage: high
will raze city: sometimes
refuses to talk delay: medium
warmonger respect: 1



Montezuma

Aztec Empire

Aggressive, Spiritual
fav. civic: Police State
fav. religion: none

favors: military, religion
builds wonders: never
trains units: very often
aggression level: very high
espionage level: moderate
tech trading: willing, 50%

base peace weight: 0
peace probability (%): 0/30/80/100
attack courage: very high
will raze city: often
refuses to talk delay: long
warmonger respect: 2



Napoleon

French Empire

Organized, Charismatic
fav. civic: Representation
fav. religion: Christianity

favors: military, gold
builds wonders: very rarely
trains units: extreme
aggression level: high
espionage level: normal
tech trading: moderate, 60%

base peace weight: 0
peace probability (%): 10/50/90/100
attack courage: extreme
will raze city: never
refuses to talk delay: long
warmonger respect: 2



Pacal II

Maya Empire

Financial, Expansive
fav. civic: Hereditary Rule
fav. religion: none

favors: culture, growth
builds wonders: very often
trains units: moderate
aggression level: quite low
espionage level: normal
tech trading: willing, 50%

base peace weight: 2
peace probability (%): 10/50/90/100
attack courage: normal
will raze city: very rarely
refuses to talk delay: moderate
warmonger respect: 0

Diplomatic attitudes**

base: 0, share war: +1 (max. +3)
 favourite civic: +1 (max. +4)
 same religion: +1 (max. +4)
 different religion: 0
 close cultural borders: max. -3
 worse/better rank difference: 0/+3

base: 1, share war: +1 (max. +4)
 favourite civic: +1 (max. +4)
 same religion: +1 (max. +2)
 different religion: 0
 close cultural borders: max. -2
 worse/better rank difference: -1/+1

base: 0, share war: +1 (max. +2)
 favourite civic: +1 (max. +3)
 same religion: +1 (max. +4)
 different religion: -2
 close cultural borders: max. -4
 worse/better rank difference: -2/+1

base: 1, share war: +1 (max. +3)
 favourite civic: +1 (max. +4)
 same religion: +1 (max. +6)
 different religion: -2
 close cultural borders: max. -2
 worse/better rank difference: 0/+4

base: 0, share war: +1 (max. +3)
 favourite civic: +1 (max. +6)
 same religion: +1 (max. +2)
 different religion: 0
 close cultural borders: max. -2
 worse/better rank difference: 0/0

base: -1, share war: +1 (max. +4)
 favourite civic: +1 (max. +4)
 same religion: +1 (max. +4)
 different religion: -2
 close cultural borders: max. -2
 worse/better rank difference: 0/+3

base: -1, share war: +1 (max. +4)
 favourite civic: +1 (max. +2)
 same religion: +1 (max. +2)
 different religion: -2
 close cultural borders: max. -4
 worse/better rank difference: -3/0

base: -1, share war: +1 (max. +4)
 favourite civic: +1 (max. +5)
 same religion: +1 (max. +4)
 different religion: 0
 close cultural borders: max. -3
 worse/better rank difference: -1/+1

base: 1, share war: +1 (max. +3)
 favourite civic: +1 (max. +5)
 same religion: +1 (max. +5)
 different religion: -2
 close cultural borders: max. -2
 worse/better rank difference: -1/+2

Diplomatic relationship at or below which trades will be refused**

technology: furious
 strategic bonus: annoyed
 happiness bonus: annoyed
 health bonus: annoyed
 maps: cautious
 open borders: annoyed

technology: furious
 strategic bonus: cautious
 happiness bonus: annoyed
 health bonus: annoyed
 maps: annoyed
 open borders: annoyed

technology: annoyed
 strategic bonus: cautious
 happiness bonus: annoyed
 health bonus: furious
 maps: annoyed
 open borders: annoyed

technology: furious
 strategic bonus: annoyed
 happiness bonus: none
 health bonus: none
 maps: annoyed
 open borders: none

technology: annoyed
 strategic bonus: cautious
 happiness bonus: annoyed
 health bonus: annoyed
 maps: annoyed
 open borders: annoyed

technology: annoyed
 strategic bonus: cautious
 happiness bonus: annoyed
 health bonus: furious
 maps: annoyed
 open borders: annoyed

technology: annoyed
 strategic bonus: cautious
 happiness bonus: annoyed
 health bonus: annoyed
 maps: pleased
 open borders: annoyed

technology: annoyed
 strategic bonus: cautious
 happiness bonus: annoyed
 health bonus: annoyed
 maps: pleased
 open borders: annoyed

technology: annoyed
 strategic bonus: cautious
 happiness bonus: furious
 health bonus: furious
 maps: cautious
 open borders: annoyed

declare war: cautious, declare war on X: pleased
 stop trading: cautious, stop trading with X: annoyed
 adopt civic: cautious, convert religion: cautious
 defensive pact: pleased
 permanent alliance: pleased
 vassal state: cautious

declare war: pleased, declare war on X: annoyed
 stop trading: cautious, stop trading with X: annoyed
 adopt civic: cautious, convert religion: cautious
 defensive pact: pleased
 permanent alliance: pleased
 vassal state: pleased

declare war: cautious, declare war on X: pleased
 stop trading: cautious, stop trading with X: cautious
 adopt civic: pleased, convert religion: cautious
 defensive pact: pleased
 permanent alliance: pleased
 vassal state: annoyed

declare war: annoyed, declare war on X: pleased
 stop trading: pleased, stop trading with X: furious
 adopt civic: annoyed, convert religion: annoyed
 defensive pact: pleased
 permanent alliance: pleased
 vassal state: annoyed

declare war: cautious, declare war on X: pleased
 stop trading: annoyed, stop trading with X: cautious
 adopt civic: pleased, convert religion: cautious
 defensive pact: pleased
 permanent alliance: pleased
 vassal state: pleased

declare war: annoyed, declare war on X: cautious
 stop trading: cautious, stop trading with X: annoyed
 adopt civic: cautious, convert religion: cautious
 defensive pact: pleased
 permanent alliance: pleased
 vassal state: pleased

declare war: annoyed, declare war on X: pleased
 stop trading: annoyed, stop trading with X: cautious
 adopt civic: cautious, convert religion: cautious
 defensive pact: pleased
 permanent alliance: pleased
 vassal state: pleased

declare war: cautious, declare war on X: pleased
 stop trading: annoyed, stop trading with X: cautious
 adopt civic: cautious, convert religion: cautious
 defensive pact: pleased
 permanent alliance: pleased
 vassal state: pleased

declare war: pleased, declare war on X: pleased
 stop trading: pleased, stop trading with X: cautious
 adopt civic: cautious, convert religion: cautious
 defensive pact: pleased
 permanent alliance: pleased
 vassal state: pleased

Kublai Khan

Lincoln

Louis XIV

Mansa Musa

Mao Zedong

Mehmed III

Montezuma

Napoleon

Pacal III

Leaders

Leaders, Traits, and Favourites

AI behaviour*



Pericles

Greek Empire

Philosophical, Creative
fav. civic: Representation
fav. religion: none

favors: production, science
builds wonders: very often
trains units: moderate
aggression level: low
espionage level: normal
tech trading: averse, 10%

base peace weight: 6
peace probability (%): 20/70/100/100
attack courage: normal
will raze city: never
refuses to talk delay: medium
warmonger respect: 0



Peter

Russian Empire

Philosophical, Expansive
fav. civic: Bureaucracy
fav. religion: Christianity

favors: science, growth
builds wonders: often
trains units: often
aggression level: high
espionage level: high
tech trading: averse, 10%

base peace weight: 1
peace probability (%): 10/50/90/100
attack courage: very high
will raze city: never
refuses to talk delay: medium
warmonger respect: 2



Qin Shi Huang

Chinese Empire

Industrious, Protective
fav. civic: Bureaucracy
fav. religion: Taoism

favors: production, growth
builds wonders: often
trains units: sometimes
aggression level: quite low
espionage level: medium
tech trading: willing, 30%

base peace weight: 2
peace probability (%): 0/30/80/100
attack courage: high
will raze city: never
refuses to talk delay: medium
warmonger respect: 2



Ragnar

Viking Empire

Financial, Aggressive
fav. civic: Hereditary Rule
fav. religion: none

favors: military
builds wonders: very rarely
trains units: extreme
aggression level: very high
espionage level: normal
tech trading: willing, 30%

base peace weight: 0
peace probability (%): 0/50/90/100
attack courage: extreme
will raze city: often
refuses to talk delay: long
warmonger respect: 2



Ramesses II

Egyptian Empire

Spiritual, Industrious
fav. civic: Organized Religion
fav. religion: none

favors: culture, production
builds wonders: extremely
trains units: sometimes
aggression level: medium
espionage level: normal
tech trading: averse, 60%

base peace weight: 6
peace probability (%): 20/70/100/100
attack courage: high
will raze city: never
refuses to talk delay: medium
warmonger respect: 0



Roosevelt

American Empire

Industrious, Organized
fav. civic: Mercantilism
fav. religion: Christianity

favors: production, gold
builds wonders: sometimes
trains units: sometimes
aggression level: quite low
espionage level: high
tech trading: averse, 30%

base peace weight: 8
peace probability (%): 10/50/90/100
attack courage: normal
will raze city: never
refuses to talk delay: long
warmonger respect: 0



Saladin

Arabian Empire

Protective, Spiritual
fav. civic: Theocracy
fav. religion: Islam

favors: military, religion
builds wonders: very rarely
trains units: often
aggression level: medium
espionage level: normal
tech trading: moderate, 40%

base peace weight: 4
peace probability (%): 20/70/100/100
attack courage: normal
will raze city: never
refuses to talk delay: medium
warmonger respect: 1



Shaka

Zulu Empire

Aggressive, Expansive
fav. civic: Police State
fav. religion: none

favors: military
builds wonders: very rarely
trains units: extreme
aggression level: very high
espionage level: normal
tech trading: willing, 50%

base peace weight: 2
peace probability (%): 0/40/90/100
attack courage: very high
will raze city: often
refuses to talk delay: long
warmonger respect: 2



Sitting Bull

Native American Empire

Philosophical, Protective
fav. civic: Environmentalism
fav. religion: none

favors: military, growth
builds wonders: never
trains units: very often
aggression level: medium
espionage level: high
tech trading: willing, 80%

base peace weight: 8
peace probability (%): 50/90/100/100
attack courage: very high
will raze city: rarely
refuses to talk delay: very long
warmonger respect: 0

Diplomatic attitudes**

base: 1, share war: +1 (max. +3)
 favourite civic: +1 (max. +2)
 same religion: +1 (max. +4)
 different religion: -1
 close cultural borders: max. -2
 worse/better rank difference: 0/0

base: 0, share war: +1 (max. +2)
 favourite civic: +1 (max. +2)
 same religion: +1 (max. +4)
 different religion: -1
 close cultural borders: max. -3
 worse/better rank difference: -2/+2

base: 1, share war: +1 (max. +3)
 favourite civic: +1 (max. +5)
 same religion: +1 (max. +4)
 different religion: -1
 close cultural borders: max. -4
 worse/better rank difference: -1/0

base: -1, share war: +1 (max. +3)
 favourite civic: +1 (max. +3)
 same religion: +1 (max. +5)
 different religion: 0
 close cultural borders: max. -2
 worse/better rank difference: -1/+2

base: 0, share war: +1 (max. +3)
 favourite civic: +1 (max. +4)
 same religion: +1 (max. +6)
 different religion: -1
 close cultural borders: max. -2
 worse/better rank difference: 0/+2

base: 1, share war: +1 (max. +3)
 favourite civic: +1 (max. +5)
 same religion: +1 (max. +3)
 different religion: 0
 close cultural borders: max. -3
 worse/better rank difference: -1/+2

base: 0, share war: +1 (max. +4)
 favourite civic: +1 (max. +1)
 same religion: +1 (max. +5)
 different religion: -2
 close cultural borders: max. -3
 worse/better rank difference: 0/+2

base: -1, share war: +1 (max. +4)
 favourite civic: +1 (max. +2)
 same religion: +1 (max. +3)
 different religion: 0
 close cultural borders: max. -4
 worse/better rank difference: -2/0

base: 0, share war: +1 (max. +4)
 favourite civic: +1 (max. +2)
 same religion: +1 (max. +2)
 different religion: 0
 close cultural borders: max. -4
 worse/better rank difference: 0/0

Diplomatic relationship at or below which trades will be refused**

technology: furious
 strategic bonus: cautious
 happiness bonus: annoyed
 health bonus: annoyed
 maps: cautious
 open borders: furious

technology: furious
 strategic bonus: cautious
 happiness bonus: furious
 health bonus: annoyed
 maps: annoyed
 open borders: annoyed

technology: annoyed
 strategic bonus: cautious
 happiness bonus: furious
 health bonus: furious
 maps: pleased
 open borders: annoyed

technology: cautious
 strategic bonus: pleased
 happiness bonus: pleased
 health bonus: annoyed
 maps: pleased
 open borders: furious

technology: annoyed
 strategic bonus: annoyed
 happiness bonus: furious
 health bonus: annoyed
 maps: pleased
 open borders: annoyed

technology: annoyed
 strategic bonus: cautious
 happiness bonus: furious
 health bonus: furious
 maps: annoyed
 open borders: annoyed

technology: annoyed
 strategic bonus: cautious
 happiness bonus: furious
 health bonus: annoyed
 maps: cautious
 open borders: annoyed

technology: cautious
 strategic bonus: cautious
 happiness bonus: annoyed
 health bonus: furious
 maps: annoyed
 open borders: annoyed

technology: annoyed
 strategic bonus: annoyed
 happiness bonus: furious
 health bonus: furious
 maps: furious
 open borders: annoyed

declare war: pleased, declare war on X: annoyed
 stop trading: pleased, stop trading with X: cautious
 adopt civic: cautious, convert religion: cautious
 defensive pact: pleased
 permanent alliance: pleased
 vassal state: pleased

declare war: annoyed, declare war on X: pleased
 stop trading: cautious, stop trading with X: cautious
 adopt civic: cautious, convert religion: cautious
 defensive pact: pleased
 permanent alliance: cautious
 vassal state: pleased

declare war: cautious, declare war on X: pleased
 stop trading: cautious, stop trading with X: annoyed
 adopt civic: cautious, convert religion: cautious
 defensive pact: pleased
 permanent alliance: cautious
 vassal state: pleased

declare war: annoyed, declare war on X: cautious
 stop trading: annoyed, stop trading with X: cautious
 adopt civic: cautious, convert religion: cautious
 defensive pact: pleased
 permanent alliance: pleased
 vassal state: pleased

declare war: cautious, declare war on X: cautious
 stop trading: cautious, stop trading with X: annoyed
 adopt civic: pleased, convert religion: pleased
 defensive pact: pleased
 permanent alliance: cautious
 vassal state: pleased

declare war: cautious, declare war on X: cautious
 stop trading: pleased, stop trading with X: cautious
 adopt civic: cautious, convert religion: cautious
 defensive pact: cautious
 permanent alliance: pleased
 vassal state: pleased

declare war: cautious, declare war on X: annoyed
 stop trading: pleased, stop trading with X: cautious
 adopt civic: cautious, convert religion: pleased
 defensive pact: cautious
 permanent alliance: pleased
 vassal state: cautious

declare war: annoyed, declare war on X: pleased
 stop trading: annoyed, stop trading with X: cautious
 adopt civic: cautious, convert religion: annoyed
 defensive pact: pleased
 permanent alliance: pleased
 vassal state: pleased

declare war: pleased, declare war on X: annoyed
 stop trading: cautious, stop trading with X: annoyed
 adopt civic: cautious, convert religion: cautious
 defensive pact: pleased
 permanent alliance: pleased
 vassal state: pleased

Pericles

Peter

Qin Shi Huang

Ragnar

Ramesses II

Roosevelt

Saladin

Shaka

Sitting Bull

Leaders

Leaders, Traits, and Favourites

AI behaviour*



Stalin

Russian Empire

Industrious, Aggressive
fav. civic: State Property
fav. religion: none

favors: military, production
builds wonders: often
trains units: often
aggression level: high
espionage level: extreme
tech trading: willing, 80%

base peace weight: 2
peace probability (%): 10/50/90/100
attack courage: high
will raze city: sometimes
refuses to talk delay: medium
warmonger respect: 1



Suleiman

Ottoman Empire

Imperialistic, Philosophical
fav. civic: Hereditary Rule
fav. religion: Islam

favors: culture, military
builds wonders: sometimes
trains units: often
aggression level: high
espionage level: medium
tech trading: moderate, 40%

base peace weight: 4
peace probability (%): 20/70/100/100
attack courage: high
will raze city: almost never
refuses to talk delay: medium
warmonger respect: 1



Suryavarman II

Khmer Empire

Expansive, Creative
fav. civic: Organized Religion
fav. religion: Buddhism

favors: gold, culture
builds wonders: very often
trains units: often
aggression level: high
espionage level: normal
tech trading: moderate, 50%

base peace weight: 1
peace probability (%): 10/50/90/100
attack courage: normal
will raze city: sometimes
refuses to talk delay: medium
warmonger respect: 1



Tokugawa

Japanese Empire

Protective, Aggressive
fav. civic: Mercantilism
fav. religion: Buddhism

favors: science, military
builds wonders: sometimes
trains units: often
aggression level: high
espionage level: very low
tech trading: willing, 100%

base peace weight: 1
peace probability (%): 10/50/90/100
attack courage: normal
will raze city: sometimes
refuses to talk delay: long
warmonger respect: 2



Victoria

English Empire

Imperialistic, Financial
fav. civic: Representation
fav. religion: Christianity

favors: gold, growth
builds wonders: often
trains units: moderate
aggression level: medium
espionage level: intensive
tech trading: moderate, 30%

base peace weight: 8
peace probability (%): 0/20/80/100
attack courage: normal
will raze city: never
refuses to talk delay: long
warmonger respect: 0



Wang Kon

Korean Empire

Financial, Protective
fav. civic: Caste System
fav. religion: Confucianism

favors: gold, science
builds wonders: sometimes
trains units: moderate
aggression level: high
espionage level: intensive
tech trading: moderate, 20%

base peace weight: 8
peace probability (%): 20/70/100/100
attack courage: normal
will raze city: very rarely
refuses to talk delay: moderate
warmonger respect: 0



Washington

American Empire

Expansive, Charismatic
fav. civic: Free Speech
fav. religion: Christianity

favors: military, growth
builds wonders: sometimes
trains units: moderate
aggression level: medium
espionage level: high
tech trading: moderate, 30%

base peace weight: 8
peace probability (%): 20/70/100/100
attack courage: high
will raze city: never
refuses to talk delay: medium
warmonger respect: 0



Willem van Oranje

Dutch Empire

Creative, Financial
fav. civic: Free Religion
fav. religion: Christianity

favors: gold, science
builds wonders: sometimes
trains units: moderate
aggression level: high
espionage level: normal
tech trading: averse, 15%

base peace weight: 4
peace probability (%): 10/50/80/100
attack courage: high
will raze city: never
refuses to talk delay: medium
warmonger respect: 0



Zara Yaqob

Ethiopian Empire

Creative, Organized
fav. civic: Theocracy
fav. religion: Christianity

favors: growth, religion
builds wonders: sometimes
trains units: often
aggression level: medium
espionage level: normal
tech trading: moderate, 30%

base peace weight: 6
peace probability (%): 10/50/90/100
attack courage: high
will raze city: almost never
refuses to talk delay: medium
warmonger respect: 1

Diplomatic attitudes**

base: -1, share war: +1 (max. +3)
 favourite civic: +1 (max. +6)
 same religion: +1 (max. +2)
 different religion: 0
 close cultural borders: max. -2
 worse/better rank difference: -3/0

Diplomatic relationship at or below which trades will be refused***

technology: cautious
 strategic bonus: cautious
 happiness bonus: annoyed
 health bonus: furious
 maps: pleased
 open borders: furious

declare war: cautious, declare war on X: pleased
 stop trading: annoyed, stop trading with X: cautious
 adopt civic: pleased, convert religion: annoyed
 defensive pact: pleased
 permanent alliance: pleased
 vassal state: cautious

Stalin

base: 0, share war: +1 (max. +5)
 favourite civic: +1 (max. +3)
 same religion: +1 (max. +2)
 different religion: -1
 close cultural borders: max. -2
 worse/better rank difference: -1/+1

technology: annoyed
 strategic bonus: annoyed
 happiness bonus: furious
 health bonus: furious
 maps: annoyed
 open borders: annoyed

declare war: annoyed, declare war on X: pleased
 stop trading: pleased, stop trading with X: cautious
 adopt civic: cautious, convert religion: annoyed
 defensive pact: pleased
 permanent alliance: pleased
 vassal state: cautious

Suleiman

base: 0, share war: +1 (max. +3)
 favourite civic: +1 (max. +4)
 same religion: +1 (max. +5)
 different religion: -2
 close cultural borders: max. -3
 worse/better rank difference: -2/0

technology: annoyed
 strategic bonus: cautious
 happiness bonus: annoyed
 health bonus: furious
 maps: cautious
 open borders: annoyed

declare war: cautious, declare war on X: pleased
 stop trading: pleased, stop trading with X: cautious
 adopt civic: cautious, convert religion: cautious
 defensive pact: pleased
 permanent alliance: pleased
 vassal state: cautious

Suryavarman II

base: -1, share war: +1 (max. +4)
 favourite civic: +1 (max. +5)
 same religion: +1 (max. +3)
 different religion: -1
 close cultural borders: max. -3
 worse/better rank difference: 0/+1

technology: cautious
 strategic bonus: pleased
 happiness bonus: cautious
 health bonus: cautious
 maps: friendly
 open borders: cautious

declare war: cautious, declare war on X: pleased
 stop trading: annoyed, stop trading with X: pleased
 adopt civic: pleased, convert religion: pleased
 defensive pact: cautious
 permanent alliance: pleased
 vassal state: cautious

Tokugawa

base: 0, share war: +1 (max. +3)
 favourite civic: +1 (max. +3)
 same religion: +1 (max. +4)
 different religion: 0
 close cultural borders: max. -2
 worse/better rank difference: -1/0

technology: annoyed
 strategic bonus: annoyed
 happiness bonus: furious
 health bonus: furious
 maps: annoyed
 open borders: annoyed

declare war: cautious, declare war on X: pleased
 stop trading: annoyed, stop trading with X: annoyed
 adopt civic: pleased, convert religion: cautious
 defensive pact: pleased
 permanent alliance: pleased
 vassal state: pleased

Victoria

base: 0, share war: +1 (max. +3)
 favourite civic: +1 (max. +4)
 same religion: +1 (max. +3)
 different religion: -1
 close cultural borders: max. -2
 worse/better rank difference: 0/+3

technology: annoyed
 strategic bonus: cautious
 happiness bonus: annoyed
 health bonus: furious
 maps: annoyed
 open borders: annoyed

declare war: cautious, declare war on X: cautious
 stop trading: pleased, stop trading with X: annoyed
 adopt civic: cautious, convert religion: cautious
 defensive pact: pleased
 permanent alliance: pleased
 vassal state: cautious

Wang Kon

base: 0, share war: +1 (max. +3)
 favourite civic: +1 (max. +4)
 same religion: +1 (max. +5)
 different religion: -1
 close cultural borders: max. -2
 worse/better rank difference: 0/+1

technology: annoyed
 strategic bonus: cautious
 happiness bonus: furious
 health bonus: annoyed
 maps: annoyed
 open borders: annoyed

declare war: pleased, declare war on X: cautious
 stop trading: cautious, stop trading with X: annoyed
 adopt civic: cautious, convert religion: cautious
 defensive pact: pleased
 permanent alliance: pleased
 vassal state: pleased

Washington

base: 0, share war: +1 (max. +4)
 favourite civic: +1 (max. +4)
 same religion: +1 (max. +1)
 different religion: 0
 close cultural borders: max. -1
 worse/better rank difference: +1/-1

technology: furious
 strategic bonus: annoyed
 happiness bonus: furious
 health bonus: furious
 maps: furious
 open borders: annoyed

declare war: pleased, declare war on X: cautious
 stop trading: pleased, stop trading with X: furious
 adopt civic: cautious, convert religion: annoyed
 defensive pact: pleased
 permanent alliance: pleased
 vassal state: pleased

Willem van Oranje

base: 2, share war: +1 (max. +3)
 favourite civic: +1 (max. +4)
 same religion: +1 (max. +7)
 different religion: -2
 close cultural borders: max. -2
 worse/better rank difference: -1/+2

technology: furious
 strategic bonus: annoyed
 happiness bonus: furious
 health bonus: furious
 maps: annoyed
 open borders: annoyed

declare war: annoyed, declare war on X: pleased
 stop trading: cautious, stop trading with X: cautious
 adopt civic: annoyed, convert religion: pleased
 defensive pact: pleased
 permanent alliance: pleased
 vassal state: cautious

Zara Yaqob

Leaders

Traits and their effects

Who has it?

Ag

Aggressive

- free **Combat I** promotion for all **Melee** and **Gunpowder Units**
- double production speed of **Barracks** and **Drydock**

Alexander	+Ph	Hammurabi	+Or	Shaka	+Ex
Boudica	+Ch	Kublai Khan	+Cr	Stalin	+In
Genghis Khan	+Im	Montezuma	+Sp	Tokugawa	+Pr
		Ragnar	+Fi		

Ch

Charismatic

- +1 happy in all cities
- -25% XP needed for unit promotions
- +1 happy from **Monument** and **Broadcast Tower**

Boudica	+Ag	Cyrus	+Im	Lincoln	+Ph
Brennus	+Sp	De Gaulle	+In	Napoleon	+Or
Churchill	+Pr	Hannibal	+Fi	Washington	+Ex

Cr

Creative

- +2 culture in all cities
- double production speed of **Library**, **Theatre**, and **Colosseum**

Catherine	+Im	Kublai Khan	+Ag	Suryavarma II	+Ex
Gilgamesh	+Pr	Louis XIV	+In	Willem van Oranje	+Fi
Hatshepsut	+Sp	Pericles	+Ph	Zara Yaqob	+Or

Ex

Expansive

- +2 health in all cities
- 25% faster production of **Worker**
- double production speed of **Granary** and **Harbor**

Bismarck	+In	Mao Zedong	+Pr	Shaka	+Ag
Isabella	+Sp	Mehmed II	+Or	Suryavarma II	+Cr
Joao II	+Im	Pacal II	+Fi	Washington	+Ch
		Peter	+Ph		

Fi

Financial

- +1 commerce on tiles with at least 2 commerce

Darius I	+Or	Huayna Capac	+In	Victoria	+Im
Elizabeth	+Ph	Mansa Musa	+Sp	Wang Kon	+Pr
Hannibal	+Ch	Pacal II	+Ex	Willem van Oranje	+Cr
		Ragnar	+Ag		

Im

Imperialistic

- +100% Great General Emergence
- 50% faster production of **Settler**

Augustus Caesar	+In	Cyrus	+Ch	Justinian I	+Sp
Catherine	+Cr	Genghis Khan	+Ag	Suleiman	+Ph
Charlemagne	+Pr	Joao II	+Ex	Victoria	+Fi
		Julius Caesar	+Or		

In

Industrious

- +50% Wonder production
- double production speed of **Forge**

Augustus Caesar	+Im	Huayna Capac	+Fi	Rameses II	+Sp
Bismarck	+Ex	Louis XIV	+Cr	Roosevelt	+Or
De Gaulle	+Ch	Qin Shi Huang	+Pr	Stalin	+Ag

Or

Organized

- -50% Civic upkeep
- double production speed of **Lighthouse**, **Factory**, and **Courthouse**

Asoka	+Sp	Hammurabi	+Ag	Napoleon	+Ch
Darius I	+Fi	Julius Caesar	+Im	Roosevelt	+In
Frederick	+Ph	Mehmed II	+Ex	Zara Yaqob	+Cr

Ph

Philosophical

- +100% Great People Birth Rate
- double production speed of **University**

Alexander	+Ag	Gandhi	+Sp	Peter	+Ex
Elizabeth	+Fi	Lincoln	+Ch	Sitting Bull	+Pr
Frederick	+Or	Pericles	+Cr	Suleiman	+Im

Pr

Protective

- free **City Garrison I** and **Drill I** promotions for all **Archery** and **Gunpowder Units**
- double production speed of **Walls** and **Castle**

Churchill	+Ch	Mao Zedong	+Ex	Sitting Bull	+Ph
Charlemagne	+Im	Qin Shi Huang	+In	Tokugawa	+Ag
Gilgamesh	+Cr	Saladin	+Sp	Wang Kon	+Fi

Sp

Spiritual

- no anarchy
- double production speed of **Temple**
- double production speed of **Cristo Redentor (W)**

Asoka	+Or	Hatshepsut	+Cr	Montezuma	+Ag
Brennus	+Ch	Isabella	+Ex	Rameses II	+In
Gandhi	+Ph	Justinian I	+Im	Saladin	+Pr
		Mansa Musa	+Fi		

W World Wonder

	Terrain	Moving cost	Production	Other effects	Resources possible
	Grassland base terrain	1	2 food +1 commerce with river	—	Copper, Corn, Cow, Gems, Horse, Iron, Pig, Rice, Sheep, Uranium
	Plains base terrain	1	1 food, 1 hammer +1 commerce with river	—	Copper, Cow, Horse, Iron, Ivory, Marble, Sheep, Stone, Uranium, Wheat, Wine
	Desert base terrain	1	+1 commerce with river	improvements take +25% time to build	Copper, Incense, Iron, Oil, Stone, Uranium
	Tundra base terrain	1	1 food +1 commerce with river	improvements take +25% time to build	Copper, Deer, Fur, Horse, Iron, Marble, Oil, Uranium
	Snow base terrain	1	—	improvements take +50% time to build	Copper, Fur, Iron, Marble, Oil, Uranium
	Coast base terrain	1	1 food, 2 commerce	+10% defense	Clam, Crab, Fish
	Ocean base terrain	1	1 food, 1 commerce	—	Fish, Oil, Whale
	Fallout terrain feature	2	-3 all	+0.5 unhealthiness in nearby cities cannot build any improvements	—
	Hill land terrain feature	1	-1 food, +1 hammer +1 commerce with river	+25% defense	Aluminum, Coal, Copper, Deer, Gold, Iron, Marble, Pig, Sheep, Silver, Stone, Uranium, Wine
	Peak land terrain feature	impassable	—	—	—
	Jungle Grassland feature	2	-1 food	+50% defense +0.25 unhealthiness in nearby cities	Banana, Dye, Gems, Ivory, Oil, Rice, Spices, Sugar, Uranium
	Oasis Desert feature	2	+3 food +2 commerce	source of fresh water cannot build any improvements	—
	Flood Plains Desert feature	2	+3 food	+0.4 unhealthiness in nearby cities	—
	Forest Grass, Plains, Tundra, Snow feature	2	+1 hammer	+50% defense +0.5 healthy in nearby cities	Deer, Fur, Silk, Spices, Uranium
	Ice water terrain feature	impassable	—	—	—

Terrain Types and Features

Improvement	Base bonus	Bonus with Resources, Techs and Civics	Other effects
 Camp <i>requires: Hunting</i>		Deer +2 F Fur +3 C Ivory +1 H, +1 C	pillaging yields 5 gold*
 Cottage +1 C <i>requires: Pottery</i>			becomes a Hamlet in 15 turns** pillaging yields 10 gold
 Farm +1 F <i>requires: Agriculture</i>		Corn, Wheat +2 F Rice +1 F	+1 F with Irrigation (Civil Service) +1 F with Biology
 Fishing Boats <i>requires: Fishing</i>		Clam, Crab +2 F Fish +3 F	can only be built on water pillaging yields 5 gold
 Forest Preserve <i>requires: Scientific Method</i>			+1 C next to river +2 C with Environmentalism
 Fort <i>requires: Mathematics</i>			+1 happy gives Forest / Jungle a higher chance of spreading
 Hamlet +2 C <i>upgrade from Cottage</i>			+25% tile defense acts as a city for combat purposes can be used as a port by Naval Units
 Lumbermill +1 H <i>requires: Replaceable Parts</i>			becomes a Village in 30 turns** pillaging yields 15 gold
 Mine +2 H <i>requires: Mining</i>		Aluminum +3 H, +1 C Coal, Copper, Iron +3 H Uranium +3 C	+1 C next to river +1 H with Railroad
 Offshore Platform <i>requires: Plastics</i>			+1 H with Railroad chance of discovering resources pillaging yields 10 gold
 Pasture <i>requires: Animal Husbandry</i>		Horse +2 H, +1 C Cow +1 F, +2 H	Gems +1 H, +5 C Gold +1 H, +6 C Silver +1 H, +4 C
 Plantation <i>requires: Calendar</i>		Banana +2 F Dye +4 C Incense +5 C	Pig +3 F Sheep +2 F, +1 C
		Silk +3 C Spices +1 F, +2 C Sugar +1 F, +1 C	pillaging yields 5 gold

Improvement	Base bonus	Bonus with Resources, Techs and Civics	Other effects
 Quarry <i>requires: Masonry</i>		Marble +1 H , +2 C Stone +2 H	+1 H with Railroad pillaging yields 5 gold
 Railroad <i>requires: Railroad, Coal, Iron</i>			0.1 movement point on any tile +1 H for Mines, Quarries, and Lumbermills
 Road <i>requires: The Wheel</i>			0.5 movement point on any tile
 Town <i>upgrade from Village</i>	+4 C	+1 H with Universal Suffrage +2 C with Free Speech +1 C with Printing Press	pillaging yields 25 gold
 Village <i>upgrade from Hamlet</i>	+3 C	+1 C with Printing Press	becomes a Town in 60 turns** pillaging yields 20 gold
 Watermill <i>requires: Machinery</i>	+1 H	+1 F with State Property +1 H with Repl. Parts +2 C with Electricity	requires river can only be built on flatlands pillaging yields 5 gold
 Well <i>requires: Combustion</i>		Oil +2 H , +1 C	pillaging yields 10 gold
 Whaling Boat <i>requires: Optics</i>		Whale +1 H , +2 C	can only be built on water pillaging yields 5 gold
 Windmill +1 F , +1 C <i>requires: Machinery</i>		+1 H with Repl. Parts +1 C with Electricity +2 C with Environmentalism	pillaging yields 5 gold
 Winery <i>requires: Monarchy</i>		Wine +1 F , +2 C	pillaging yields 10 gold
 Workshop -1 F , +1 H <i>requires: Metal Casting</i>		+1 F with State Property +1 H with Caste System +1 H with Guilds +1 H with Chemistry	can only be built on flatlands pillaging yields 5 gold

F food H hammers C commerce

* All pillage yields in this list represent averages.

** Assumes **Normal** Game Speed; number of turns varies with game length. Factors for other conditions are: **Quick** ×0.67, **Epic** ×1.50, **Marathon** ×3.00 (!). For example, at Quick speed a Village will become a Town in 40 turns rather than 60.

Resources	Base & Improv. bonus	Other changes	Terrain appearance
 Aluminum Mine	+1 H +3 H, +1 C	revealed by Industrialism	Plains, Desert, Tundra (Hills only)
 Banana Plantation	+1 F +1 health, +2 F	Grocer / Apothecary * +1 health	Grassland with Jungle only (Flatlands only)
 Clam Fishing Boats	+1 F +1 health, +2 F	Harbor / Cothon * +1 health	Coast only
 Coal Mine	+1 H +3 H	revealed by Steam Power Factory / Assembly Plant * +1 unhealthiness Industrial Park +1 unhealthiness	Grassland with Hills Plains with Hills
 Copper Mine	+1 H +3 H	revealed by Bronze Working	Grassland, Plains, Desert, Tundra, Snow (Flatlands and Hills)
 Corn Farm	+1 F +1 health, +2 F	Granary / Terrace * +1 health	Grassland without any features only
 Cow Pasture	+1 F +1 health, +1 F, +2 H	Supermarket / Mall * +1 health	Grassland and Plains without any features
 Crab Fishing Boats	+1 F +1 health, +2 F	Harbor / Cothon * +1 health	Coast only
 Deer Camp	+1 F +1 health, +2 F	Supermarket / Mall * +1 health	Tundra and Tundra with Forest (Flatlands and Hills)
 Dye Plantation	+1 C +1 happy, +4 C	Theatre / Pavilion * +1 happy	Grassland with Jungle only (Flatlands only)
 Fish Fishing Boats	+1 F +1 health, +3 F	Harbor / Cothon * +1 health	Coast and Ocean
 Fur Camp	+1 C +1 happy, +3 C	Market / Forum * +1 happy obsolete with Plastics	Tundra and Snow with any features
 Gems Mine	+1 C +1 happy, +1 H, +5 C	Forge / Mint * +1 happy	Grassland with Jungle (Flatlands and Hills)
 Gold Mine	+1 C +1 happy, +1 H, +6 C	Forge / Mint * +1 happy	Plains with Hills Desert with Hills
 Hit Movies	+1 happy	Broadcast Tower +1 happy Mall * +1 happy	generated by Hollywood
 Hit Musicals	+1 happy	Broadcast Tower +1 happy Mall * +1 happy	generated by Broadway
 Hit Singles	+1 happy	Broadcast Tower +1 happy Mall * +1 happy	generated by Rock 'n' Roll
 Horse Pasture	+1 H +2 H, +1 C	revealed by Animal Husbandry Hippodrome * +1 happy	Grassland, Plains, Tundra (Flatlands only)

Resources	Base & Improv. bonus	Other changes	Terrain appearance
 Incense	+1 C Plantation +1 happy, +5 C	+1 C all religion Cathedrals +1 happy	Flatland Desert only
 Iron	+1 H Mine +3 H	revealed by Iron Working	Grassland, Plains, Desert, Tundra, Snow (Flatlands and Hills)
 Ivory	+1 H Camp +1 happy, +1 H, +1 C	Market / Forum* +1 happy obsolete with Industrialism	Grassland with Jungle, Plains (Flatlands only)
 Marble	+1 H Quarry +1 H, +2 C	—	Plains, Tundra, Snow (Flatlands and Hills)
 Oil	+1 H Well, Offshore Platform +2 H, +1 C	revealed by Scientific Method Factory / Assembly Plant* +2 unhealthiness Industrial Park +1 unhealthiness Public Transportation +1 health	Desert, Tundra, Snow (without any features) Ocean, Grassland with Jungle
 Pig	+1 F Pasture +1 health, +3 F	Supermarket / Mall* +1 health	Grassland and Grassland with Jungle (Flatlands and Hills)
 Rice	+1 F Farm +1 health, +1 F	Granary / Terrace* +1 health	Grassland and Grassland with Jungle (Flatlands only)
 Sheep	+1 F Pasture +1 health, +2 F, +1 C	Supermarket / Mall* +1 health	Grassland and Plains (Flatlands and Hills)
 Silk	+1 C Plantation +1 happy, +3 C	Market / Forum* +1 happy	Grassland and Plains (Flatlands with Forest only)
 Silver	+1 C Mine +1 happy, +1 H, +4 C	Forge / Mint* +1 happy	Tundra with Hills Snow with Hills
 Spices	+1 C Plantation +1 happy, +2 C	Grocer / Apothecary* +1 health	Grassland and Plains (Flatlands with Forest or Jungle)
 Stone	+1 H Quarry +2 H	—	Plains and Desert (Flatlands and Hills)
 Sugar	+1 C Plantation +1 happy, +1 F, +1 C	Grocer / Apothecary* +1 health	Grassland with Jungle only (Flatlands only)
 Uranium	+3 C Mine +3 C	revealed by Physics	all land terrain
 Whale	+1 F Whaling Boats +1 happy, +2 H, +1 C	Market / Forum* +1 happy obsolete with Combustion	Ocean only
 Wheat	+1 F Farm +1 health, +2 F	Granary / Terrace* +1 health	Flatland Plains only
 Wine	+1 C Winery +1 happy, +1 F, +2 C	Grocer / Apothecary* +1 health	Plains (Flatlands and Hills)

F food H hammers C commerce
* unique building

Building	Hammers*	Prerequisites	Effects
 Airport	250	Flight	+1 unhealthiness +1 Trade Route, +3 XP for new Air Units +4 Air Unit capacity, can airlift 1 unit per turn
 Apothecary Persian unique (Grocer)	150	Guilds, Currency	+2 health, +25% gold +1 health from Banana, Spices, Sugar, Wine can turn 2 Citizens into Merchant
 Aqueduct	100	Mathematics, Masonry	+2 health
 Assembly Plant German unique (Factory) <i>67% with Coal</i>	250	Assembly Line	+25% hammers (+50% with Power) +1 unhealthiness, +2 unhealthiness from Oil, Coal can turn 4 Citizens into Engineer
 Ball Court Maya unique (Colosseum)	80	Construction	+3 happy +1 happy per 20% culture rate
 Bank	200	Banking	+50% gold
 Baray Khmer unique (Aqueduct)	100	Mathematics, Masonry	+1 food +2 health
 Barracks	50	—	+3 XP for new Land Units +2 happy with Nationhood
 Bomb Shelter	100	Electricity Manhattan Project	-50% damage from Tactical Nuke and ICBM
 Broadcast Tower	175	Mass Media	+50% culture, +1 happy per 10% culture, +1 happy from Hit Musicals, Hit Singles, Hit Movies , +1 happy with Charismatic trait, can turn 2 Citizens into Artist
 Buddhist Monastery	60	Meditation, Buddhism <i>obsolete with Scientific Method</i>	+10% science, +2 culture
 Buddhist Stupa <i>50% with Copper</i>	300	Music, Buddhism Buddhist Temple (2)**	+50% culture, +1 happy with Incense +2 happy with Buddhism as a State Religion can turn 2 Citizens into Priest
 Buddhist Temple	80	Priesthood Buddhism	+1 culture, +1 happy can turn 1 Citizen into Priest
 Bunker	100	Electricity	-50% damage from Air Units
 Castle <i>50% with Stone</i> <i>obsolete with Economics</i>	100	Engineering, Walls	+1 culture, +25% espionage, +1 Trade Route +50% defense (except Gunpowder Units) -25% damage from bombard. (except Gunpowder Units)
 Christian Cathedral <i>50% with Stone</i>	300	Music, Christianity Christian Temple (2)**	+50% culture, +1 happy with Incense +2 happy with Christianity as a State Religion can turn 2 Citizens into Priest

Building	Hammers*	Prerequisites	Effects
 Christian Monastery 60 <i>Spanish unique (Castle)</i> <i>50% with Stone</i>	60	Meditation, Christianity <i>obsolete with Scientific Method</i>	+10% science, +2 culture
 Christian Temple 80	80	Priesthood Christianity	+1 culture, +1 happy can turn 1 Citizen into Priest
 Citadel 100 <i>Spanish unique (Castle)</i> <i>50% with Stone</i>	100	Engineering, Walls <i>obsolete with Economics</i>	+1 culture, +25% espionage, +1 Trade Route +50% defense (except Gunpowder Units) -25% damage from bombard. (except Gunpowder Units) +5 XP for new Siege Weapons
 Coal Plant 150	150	Assembly Line Factory	+2 unhealthiness provides Power with Coal
 Colosseum 80	80	Construction	+1 happy +1 happy per 20% culture rate
 Confucian Academy 300 <i>50% with Copper</i>	300	Music, Confucianism Confucian Temple (2)**	+50% culture, +1 happy with Incense +2 happy with Confucianism as a State Religion can turn 2 Citizens into Priest
 Confucian Monastery 60 <i>50% with Copper</i>	60	Meditation, Confucianism <i>obsolete with Scientific Method</i>	+10% science, +2 culture
 Confucian Temple 80	80	Priesthood Confucianism	+1 culture, +1 happy can turn 1 Citizen into Priest
 Cothon 100 <i>Carthaginian unique (Harbor)</i> <i>can only be built in coastal city</i>	100	Compass	+1 health from Clam, Crab, Fish +1 Trade Route +50% commerce from Trade Routes
 Courthouse 120	120	Code of Laws	+2 espionage, -50% maintenance can turn 1 Citizen into Spy
 Customs House 180 <i>can only be built in coastal city</i>	180	Economics Harbor	+100% commerce from intercontinental foreign Trade Routes
 Dike 180 <i>Dutch unique (Levee)</i> <i>can only be built in coastal or river city</i>	180	Steam Power	+1 hammer on river tiles +1 hammer on water tiles
 Drydock 120 <i>can only be built in coastal city</i>	120	Steel	+1 unhealthiness +4 XP for new Naval Units +50% Naval Units production
 Dun 50 <i>Celtic unique (Walls)</i> <i>50% with Stone</i>	50	Masonry <i>obsolete with Rifling</i>	+50% defense (except Gunpowder Units) -50% damage from bombard. (except Gunpowder Units) Guerilla 1 promotion for new Land Units
 Factory 250	250	Assembly Line	+25% hammers (+50% with Power) +1 unhealthiness, +2 unhealthiness from Oil, Coal (each) can turn 2 Citizens into Engineer
 Feitoria 180 <i>Portuguese un. (Cust. House)</i> <i>can only be built in coastal city</i>	180	Economics Harbor	+1 commerce on water tiles +100% commerce from intercontinental foreign Trade Routes

Building	Hammers*	Prerequisites	Effects
 Forge	120	Metal Casting	+1 happiness from Gems, Gold, Silver +25% hammers, +1 unhealthiness can turn 1 Citizen into Engineer
 Forum Roman unique (Market)	150	Currency	+25% gold, +25% Great People Birth Rate +1 happy from Fur, Ivory, Silk, Whale can turn 2 Citizens into Merchant
 Garden Babylonian unique (Colosseum)	80	Construction	+2 health, +1 happy +1 happy per 20% culture rate
 Ger Mongolian unique (Stable)	60	Horseback Riding <i>obsolete with Advanced Flight</i>	+4 XP for new Mounted Units
 Granary	60	Pottery	+1 health from Corn, Rice, Wheat half the city's food supply remains after population growth
 Grocer	150	Guilds, Currency	+25% gold +1 health from Banana, Spices, Sugar, Wine can turn 2 Citizens into Merchant
 Hamam Ottoman unique (Aqueduct)	100	Mathematics, Masonry	+2 health +2 happiness
 Harbor <i>can only be built in coastal city</i>	80	Compass	+1 health from Clam, Crab, Fish +50% commerce from Trade Routes
 Hindu Mandir <i>50% with Marble</i>	300	Music, Hinduism Hindu Temple (2)**	+50% culture, +1 happy with Incense +2 happy with Hinduism as a State Religion can turn 2 Citizens into Priest
 Hindu Monastery	60	Meditation, Hinduism <i>obsolete with Scientific Method</i>	+10% science, +2 culture
 Hindu Temple	80	Priesthood Hinduism	+1 culture, +1 happy can turn 1 Citizen into Priest
 Hippodrome Byzantine unique (Theatre)	50	Drama	+1 happy, +1 happy per 5% culture rate +3 culture, +1 happy from Horse
 Hospital	200	Medicine	+3 health heals units +10% extra per turn
 Hydro Plant <i>can only be built in river city</i>	200	Plastics Factory	provides Power
 Ikhanda Zulu unique (Barracks)	50	—	+3 XP for new Land Units -20% maintenance +2 happy with Nationhood
 Industrial Park	200	Factory Industrialism	+2 unhealthiness +1 unhealthiness from Coal, Oil (each) 1 free Engineer , can turn 2 Citizens into Engineer

Building	Hammers*	Prerequisites	Effects
 Intelligence Agency 180	Communism	+8 espionage, +50% espionage can turn 2 Citizens into Spy	
 Islamic Monastery 60	Meditation, Islam <i>obsolete with Scientific Method</i>	+10% science, +2 culture	
 Islamic Mosque 300 <i>50% with Marble</i>	Music, Islam Islamic Temple (2)**	+50% culture, +1 happy with Incense +2 happy with Islam as a State Religion can turn 2 Citizens into Priest	
 Islamic Temple 80	Priesthood Islam	+1 culture, +1 happy can turn 1 Citizen into Priest	
 Jail 120	Constitution	+4 espionage, +50% espionage -25% war weariness can turn 2 Citizens into Spy	
 Jewish Monastery 60	Meditation, Judaism <i>obsolete with Scientific Method</i>	+10% science, +2 culture	
 Jewish Synagogue 300 <i>50% with Stone</i>	Music, Judaism Jewish Temple (2)**	+50% culture, +1 happy with Incense +2 happy with Judaism as a State Religion can turn 2 Citizens into Priest	
 Jewish Temple 80	Priesthood Judaism	+1 culture, +1 happy can turn 1 Citizen into Priest	
 Laboratory 250	Superconductors Observatory	+25% science, +1 unhealthiness +50% spaceship production can turn 1 Citizen into Scientist	
 Levee 180 <i>can only be built in river city</i>	Steam Power	+1 hammer on river tiles	
 Library 90	Writing	+25% science, +2 culture can turn 2 Citizens into Scientist	
 Lighthouse 60 <i>can only be built in coastal city</i>	Sailing	+1 food on water tiles	
 Madrasa 90 Arabian unique (Library)	Writing	+25% science, +4 culture can turn 2 Citizens into Scientist can turn 2 Citizens into Priest	
 Mall 150 American unique (Supermarket)	Refrigeration Grocer	+1 food, +20% gold +1 health from Cow, Deer, Pig, Sheep +1 happy from Hit Musicals, Hit Singles, Hit Movies	
 Market 150	Currency	+25% gold +1 happy from Fur, Ivory, Silk, Whale can turn 2 Citizens into Merchant	
 Mausoleum 120 Indian unique (Jail)	Constitution	+4 espionage, +50% espionage, +2 happy -25% war weariness can turn 2 Citizens into Spy	

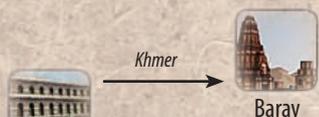
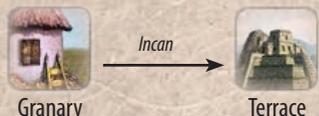
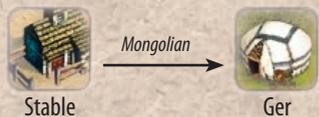
Building	Hammers*	Prerequisites	Effects
 Mint Malinese unique (Forge)	120	Metal Casting	+1 happiness from Gems, Gold, Silver +25% hammers, +10% gold, +1 unhealthiness can turn 1 Citizen into Engineer
 Monument	30	Mysticism <i>obsolete with Astronomy</i>	+1 culture +1 happy with Charismatic trait
 Nuclear Plant	250	Fission Factory	provides Power with Uranium small chance of nuclear meltdown
 Obelisk Egyptian unique (Monument)	30	Mysticism <i>obsolete with Astronomy</i>	+1 culture +1 happy with Charismatic trait can turn 2 Citizens into Priest
 Observatory	150	Astronomy	+25% science can turn 1 Citizen into Scientist
 Odeon Greek unique (Colosseum)	80	Construction	+2 happy, +1 happy per 20% culture rate +1 happy from Hit Singles , +3 culture can turn 2 Citizens into Artist
 Pavilion Chinese unique (Theatre)	50	Drama	+3 culture, +25% culture, +1 happy from Dye +1 happy per 10% culture rate can turn 2 Citizens into Artist
 Public Transportation	150	Combustion	+1 health, +1 health from Oil +2 health with Environmentalism
 Rathaus Holy Roman unique (Courthouse)	120	Code of Laws	+2 espionage -75% maintenance can turn 1 Citizen into Spy
 Recycling Center	300	Ecology	eliminates pollution from city buildings
 Research Institute Russian unique (Laboratory)	250	Superconductors Observatory	+25% science, +1 unhealthiness +50% spaceship production 2 free Scientists , can turn 1 Citizen into Scientist
 Sacrificial Altar Aztec unique (Courthouse)	90	Code of Laws	+2 espionage, -50% maintenance -50% anger duration from sacrificing population can turn 1 Citizen into Spy
 Salon French unique (Observatory)	150	Astronomy	+25% science 1 free Artist , can turn 1 Citizen into Scientist
 Security Bureau	220	Democracy	+8 espionage, +50% espionage defense can turn 2 Citizens into Spy helps thwart rival spies
 Seowon Korean unique (University)	200	Education Library	+35% science, +3 culture
 Shale Plant Japanese unique (Coal Plant)	150	Factory Assembly Line	+10% hammers, +2 unhealthiness provides Power

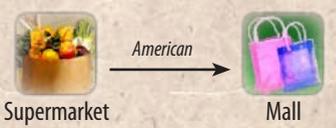
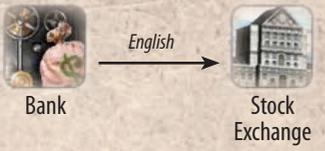
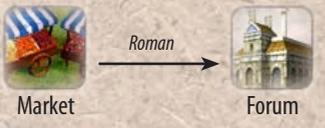
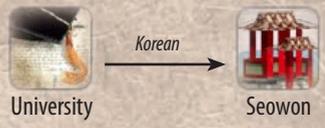
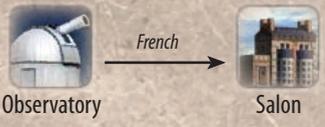
Building	Hammers*	Prerequisites	Effects
 Stable	60	Horseback Riding <i>obsolete with Advanced Flight</i>	+2 XP for new Mounted Units
 Stele Ethiopian unique (Monument)	30	Mysticism <i>obsolete with Astronomy</i>	+1 culture, +25% culture +1 happy with Charismatic trait
 Stock Exchange English unique (Bank)	200	Banking	+65% gold
 Supermarket	150	Refrigeration Grocer	+1 food +1 health from Cow, Deer, Pig, Sheep
 Taoist Monastery	60	Meditation, Taoism <i>obsolete with Scientific Method</i>	+10% science, +2 culture
 Taoist Pagoda <i>50% with Copper</i>	300	Music, Taoism Taoist Temple (2)**	+50% culture, +1 happy with Incense +2 happy with Taoism as a State Religion can turn 2 Citizens into Priest
 Taoist Temple	80	Priesthood Taoism	+1 culture, +1 happy can turn 1 Citizen into Priest
 Terrace Incan unique (Granary)	60	Pottery	+1 health from Corn, Rice, Wheat +2 culture doubles city growth rate
 Theatre	50	Drama	+3 culture, +1 happy from Dye +1 happy per 10% culture rate can turn 2 Citizens into Artist
 Totem Pole Native American unique (Monument)	30	Mysticism <i>obsolete with Astronomy</i>	+1 culture +1 happy with Charismatic trait +3 XP for new Archery Units
 Trading Post Viking unique (Lighthouse) <i>can only be built in coastal city</i>	60	Sailing	+1 food on water tiles Navigation I promotion for new Naval Units
 University	200	Education Library	+25% science, +3 culture
 Walls <i>50% with Stone</i>	50	Masonry <i>obsolete with Rifling</i>	+50% defense (except Gunpowder Units) -50% damage from bombard. (except Gunpowder Units)
 Ziggurat Sumerian unique (Courthouse)	90	Priesthood	+2 espionage -50% maintenance can turn 1 Citizen into Spy

* Assumes **Normal** Game Speed. Factors for other conditions are: **Quick** ×0.67, **Epic** ×1.50, **Marathon** ×3.00 (!)
example: *Stable* on *Epic* will cost 90 hammers instead of 60

** Assumes **Duel** and **Tiny** Map Sizes. Factors for other conditions are: **Small** ×1.25, **Standard** ×1.50, **Large** ×1.75, **Huge** ×2.00
example: *Confucian Academy* requires 3 *Confucian Temples* on *Standard* instead of 2

Unique Buildings Replaces





Unique Buildings Replaces

Wonder	Cost in hammers*	Prerequisites	Effects
 Palace	160	4 cities**	+8 commerce, +2 culture, +4 espionage, +1 happiness makes host city the capital reduces maintenance in nearby cities
 Forbidden Palace	200	8 cities** Courtthouse (4)**	+4 culture, +1 Great People Birth Rate (Great Spy) reduces maintenance in nearby cities
 Globe Theatre	300	Drama Theatre (4)**	+6 culture, +1 Great People Birth Rate (Great Artist) no unhappiness in this city can turn 3 Citizens into Artist
 Hermitage	300 <i>50% with Marble</i>	Nationalism	+100% culture +1 Great People Birth Rate (Great Artist)
 Heroic Epic	200 <i>50% with Marble</i>	Literature, Barracks one level 4 military unit	+4 culture, +1 Great People Birth Rate (Great Artist) +100% military unit production
 Ironworks	700	Steel Forge (4)**	+50% hammers with Iron, +50% hammers with Coal +1 Great People Birth Rate (Great Engineer) +2 unhealthiness, can turn 3 Citizens into Engineer
 Moai Statues	250 <i>50% with Stone</i>	Sailing	+4 culture, +1 Great People Birth Rate (Great Prophet) +1 hammer on water tiles
 Mt. Rushmore	500 <i>50% with Stone</i>	Fascism	+4 culture, +1 Great People Birth Rate (Great Artist) -25% war weariness in all cities
 National Epic	250 <i>50% with Marble</i>	Literature Library	+4 culture, +1 Great People Birth Rate (Great Artist) +100% Great People Birth Rate
 National Park	300	Biology	+3 culture, +1 Great People Birth Rate (Great Scientist) removes access to Coal from the city, no unhealthiness from population, 1 free Specialist per Forest Preserve
 Oxford University	400 <i>50% with Stone</i>	Education University (4)**	+100% science, +4 culture +1 Great People Birth Rate (Great Scientist) can turn 3 Citizens into Scientist
 Red Cross	600	Medicine Hospital (4)**	+2 culture, +1 Great People Birth Rate (Great Scientist) free Medic I promotion for all new units built in this city
 Wall Street	600	Corporation Bank (4)**	+100% gold +1 Great People Birth Rate (Great Merchant) can turn 3 Citizens into Merchant
 West Point	800 <i>50% with Stone</i>	Military Tradition one level 6 military unit	+1 Great People Birth Rate (Great Spy) +4 XP for all new units

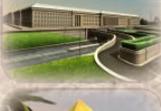
* Assumes **Normal** Game Speed. See page 29 for more details.

** Assumes **Duel** and **Tiny** Map Sizes. See page 29 for more details.

Special Building	Prerequisites	Effects
 Academy <i>can only be built by Great Scientist</i>	—	+50% science, +4 culture
 Military Academy <i>can only be built by Great General</i>	Military Science	+3 culture +50% military unit production
 Scotland Yard <i>can only be built by Great Spy</i>	—	+100% espionage increases a chance of Great Spy appearing
Project* Cost in hammers** Prerequisites Effects		
 Apollo Program Team Project <i>50% with Aluminum</i>	1600 Rocketry	allows Space Ship Parts production
 Space Ship Casing Team Project <i>50% with Aluminum</i>	1200 Composites Apollo Program	1–5 required for Space Race Victory
 Space Ship Cockpit Team Project <i>50% with Copper</i>	1000 Fiber Optics Apollo Program	1 required for Space Race Victory
 Space Ship Docking Bay Team Project <i>50% with Aluminum</i>	2000 Satellites Apollo Program	1 required for Space Race Victory
 Space Ship Engine Team Project	1600 Fusion Apollo Program	1–2 required for Space Race Victory
 Space Ship Life Support Team Project <i>50% with Copper</i>	1000 Ecology Apollo Program	1 required for Space Race Victory
 Space Ship Stasis Chamber Team Project	1200 Genetics Apollo Program	1 required for Space Race Victory
 Space Ship Thrusters Team Project <i>50% with Aluminum</i>	1200 Superconductors Apollo Program	1–5 required for Space Race Victory
 Internet World Project <i>50% with Copper</i>	2000 Computers	grants all technologies possessed by any 2 or more known civilizations
 Manhattan Project World Project <i>50% with Uranium</i>	1500 Fission	enables Nuclear Attacks (for all players) enables Bomb Shelters (for all players)
 SDI Team Project <i>50% with Aluminum</i>	1500 Laser Manhattan Project	+75% chance of intercepting ICBM and Tactical Nuke

* With the exception of SDI, all Team Projects require that Space Race victories be enabled.
 ** Assumes **Normal** Game Speed. See page 29 for more details.

Wonder	Cost in hammers*	Prerequisites	Effects
 Angkor Wat	500 <i>50% with Stone</i> +8 culture	Philosophy <i>obsolete with Computers</i>	+2 Great People Birth Rate (Great Prophet) +1 hammer from Priest in all cities can turn 3 Citizens into Priest
 Apostolic Palace	400 +4 culture	Theology State Religion in city <i>obsolete with Mass Media</i>	+2 Great People Birth Rate (Great Prophet) triggers Apostolic Palace Global Elections guarantees eligibility for Diplomatic Votes <i>requires Diplomatic Victory enabled, 3+ teams</i>
 Broadway	800 +6 culture	Electricity	+2 Great People Birth Rate (Great Artist) +50% culture, +1 happy provides 5 Hit Musicals
 Chichen Itza	500 <i>50% with Stone</i> +6 culture	Code of Laws <i>obsolete with Rifling</i>	+2 Great People Birth Rate (Great Prophet) +25% defense in all cities
 Colossus	250 <i>50% with Copper</i> <i>can only be built in coastal city</i> +6 culture	Bronze Working Forge <i>obsolete with Astronomy</i>	+2 Great People Birth Rate (Great Merchant) +1 commerce on water tiles in all cities
 Cristo Redentor	1000 +5 culture	Radio	+2 Great People Birth Rate (Great Engineer) 1 turn Anarchy between Civic or Religion changes double production speed for Spiritual leaders
 Eiffel Tower	1250 <i>50% with Iron</i> +6 culture	Radio Forge	+2 Great People Birth Rate (Great Merchant) free Broadcast Tower in all cities
 Great Library	350 <i>50% with Marble</i> +8 culture	Literature Library <i>obsolete with Scientific Method</i>	+2 Great People Birth Rate (Great Scientist) 2 free Scientists
 Great Lighthouse	200 <i>can only be built in coastal city</i> +6 culture	Sailing, Masonry Lighthouse <i>obsolete with Corporation</i>	+2 Great People Birth Rate (Great Merchant) +2 Trade Routes in all coastal cities
 Great Wall	150 <i>50% with Stone</i> +2 culture	Masonry	+2 Great People Birth Rate (Great Spy) prevents Barbarians from entering borders +100% Great General Emergence inside cultural borders
 Hagia Sophia	500 <i>50% with Marble</i> +8 culture	Theology <i>obsolete with Steam Power</i>	+2 Great People Birth Rate (Great Engineer) Workers build improvements 50% faster
 Hanging Gardens	300 <i>50% with Stone</i> +6 culture	Mathematics Aqueduct	+2 Great People Birth Rate (Great Engineer) +1 health in all cities +1 population in all cities

Wonder	Cost in hammers*	Prerequisites	Effects
 Hollywood	1000	Mass Media	+2 Great People Birth Rate (Great Artist) +50% culture, +1 happy provides 5 Hit Movies
 Kremlin	800 <i>50% with Stone</i>	Communism <i>obsolete with Fiber Optics</i>	+2 Great People Birth Rate (Great Spy) -33% hurry production cost can turn 2 Citizens into Spy
 Mausoleum of Maussollos	450 +10 culture <i>50% with Marble</i>	Calendar	+2 Great People Birth Rate (Great Artist) +50% Golden Age length
 Notre Dame	550 +10 culture <i>50% with Stone</i>	Engineering	+2 Great People Birth Rate (Great Artist) +2 happy in all cities on the same continent
 Oracle	150 +8 culture <i>50% with Marble</i>	Priesthood	+2 Great People Birth Rate (Great Prophet) 1 free technology
 Parthenon	400 +10 culture <i>50% with Marble</i>	Polytheism Aesthetics <i>obsolete with Scientific Method</i>	+2 Great People Birth Rate (Great Artist) +50% Great People Birth Rate in all cities
 Pentagon	1250	Assembly Line	+2 Great People Birth Rate (Great Spy) +2 XP for all new units in all cities
 Pyramids	500 +6 culture <i>50% with Stone</i>	Masonry	+2 Great People Birth Rate (Great Engineer) enables all Government Civics
 Rock 'n' Roll	800	Radio	+2 Great People Birth Rate (Great Artist) +50% culture +1 happy provides 5 Hit Singles
 Shwedagon Paya	450 +8 culture <i>50% with Gold</i>	Meditation Aesthetics	+2 Great People Birth Rate (Great Prophet) enables all Religion Civics
 Sistine Chapel	600 +10 culture <i>50% with Marble</i>	Music	+2 Great People Birth Rate (Great Artist) +2 culture per Specialist in all cities +5 culture from all State Religion buildings
 Space Elevator	2000 <i>50% with Aluminum</i>	Satellites, Robotics	+2 Great People Birth Rate (Great Scientist) +50% spaceship production in all cities <i>requires Space Race Victory enabled</i>

Wonder

Cost in hammers*

Prerequisites

Effects



Spiral Minaret 550

50% with Stone

+8 culture

Divine Right

obsolete with Computers

+2 Great People Birth Rate (**Great Prophet**)

+2 gold from all **State Religion** buildings



Statue of Liberty 1500

50% with Copper

+6 culture

Democracy

Forge

+2 Great People Birth Rate (**Great Merchant**)

1 free **Specialist** in all cities on continent



Statue of Zeus 300

50% with Ivory

+10 culture

Aesthetics

Monument (2)**

+2 Great People Birth Rate (**Great Artist**)

enemies suffer +100% war weariness



Stonehenge 120

50% with Stone

+8 culture

Mysticism

obsolete with Astronomy

+2 Great People Birth Rate (**Great Prophet**)

free **Monument** in all cities

centers World Map



Taj Mahal 700

50% with Marble

+10 culture

Nationalism

+2 Great People Birth Rate (**Great Artist**)

starts Golden Age



Temple of Artemis 350

50% with Marble

+8 culture

Polytheism

obsolete with Scientific Method

+2 Great People Birth Rate (**Great Merchant**)

1 free **Priest**

Trade Route yields doubled in host city



Three Gorges Dam 1750

can only be built in river city

Plastics

+2 Great People Birth Rate (**Great Engineer**)

provides Power for all cities on continent



University of Sankore 550

50% with Stone

+8 culture

Paper

obsolete with Computers

+2 Great People Birth Rate (**Great Scientist**)

+2 beakers from all **State Religion** buildings



United Nations 1000

Mass Media

+2 Great People Birth Rate (**Great Merchant**)

triggers United Nations Global Elections

guarantees eligibility for Diplomatic Votes

requires Diplomatic Victory enabled, 3+ teams



Versailles 800

50% with Marble

+10 culture

Divine Right

+2 Great People Birth Rate (**Great Merchant**)

reduces maintenance in nearby cities

* Assumes costs given apply only to a **Normal** Game Speed. See page 29 for more details.

** Assumes **Duel** and **Tiny** Map Sizes. See page 29 for more details.

Religion	Shrine	Effects
 Buddhism <ul style="list-style-type: none"> founded by first to discover Meditation 	 Mahabodhi	<i>All Shrines can only be built by Great Prophets, and only in the respective Holy City.</i> All Religion Shrines: +4 culture +1 Great People Birth Rate (Great Prophet) +1 gold per city with its Religion spread its Religion can turn 3 Citizen into Priest
 Christianity <ul style="list-style-type: none"> founded by first to discover Theology 1 free Christian Missionary 	 Church of the Nativity	
 Confucianism <ul style="list-style-type: none"> founded by first to discover Code of Laws 1 free Confucian Missionary 	 Kong Miao	
 Hinduism <ul style="list-style-type: none"> founded by first to discover Polytheism 	 Kashi Vishwanath	
 Islam <ul style="list-style-type: none"> founded by first to discover Divine Right 1 free Islamic Missionary 	 Masjid al-Haram	
 Judaism <ul style="list-style-type: none"> founded by first to discover Monotheism 	 Temple of Solomon	
 Taoism <ul style="list-style-type: none"> founded by first to discover Philosophy 1 free Taoist Missionary 	 Dai Miao	

Corporation ^o	Requirements and Production	Competes with
 Aluminum Co <i>can only be built by Great Scientist</i> <i>requires: Corporation, Rocketry</i>	consumes Coal generates Aluminum all cities: +3 beakers per resource consumed	Mining Inc
 Cereal Mills <i>can only be built by Great Merchant</i> <i>requires: Corporation, Refrigeration</i>	consumes: Wheat, Corn, Rice all cities: +0.75 food per resource consumed	Sid's Sushi Co Standard Ethanol
 Civilized Jewelers Inc <i>can only be built by Great Artist</i> <i>requires: Corporation, Mass Media</i>	consumes: Gold, Silver, Gems all cities: +1 gold and +4 culture per resource consumed	Mining Inc
 Creative Constructions <i>can only be built by Great Engineer</i> <i>requires: Corporation, Combustion</i>	consumes: Iron, Copper, Marble, Stone, Aluminum all cities: +0.5 hammer and +3 culture per resource consumed	Mining Inc
 Mining Inc <i>can only be built by Great Engineer</i> <i>requires: Corporation, Railroad</i>	consumes: Coal, Iron, Copper, Gold, Silver all cities: +1 hammer per resource consumed	Creative Constructions Aluminum Co Civilized Jewelers Inc
 Sid's Sushi Co <i>can only be built by Great Merchant</i> <i>requires: Corporation, Medicine</i>	consumes: Crab, Clam, Fish, Rice all cities: +0.5 food and +2 culture per resource consumed	Cereal Mills Standard Ethanol
 Standard Ethanol <i>can only be built by Great Scientist</i> <i>requires: Corporation, Plastics</i>	consumes: Corn, Sugar, Rice generates Oil all cities: +2 beakers per resource consumed	Cereal Mills Sid's Sushi Co

^o Each Corporation HQ generates +2 culture, +1 Great People Birth Rate, and +4 gold per corporate branch office.

Unit	Hammers*	Str./Movement	Prereq.	Special abilities
 Airship Air Unit	80	4 / 1 MP / 8 R +100% vs. Naval	Physics	can see Submarines
 Alumco Exec. National Unit	100	0 / 2 MP	—	can expand Aluminum Co
 Anti-Tank Gunpowder Unit	120	14 / 1 MP +50% vs. Armored	Artillery	starts with Ambush
 Archer Archery Unit	25	3 / 1 MP	Archery	1 first strike +50% city defense +25% hills defense
 Artillery Siege Weapon	150	18 / 1 MP +50% vs. Siege	Artillery	doesn't receive defensive bonuses max. 85% damage to enemy, causes collateral damage immune to collateral damage from Siege Weapons can bombard city defenses (-16% per turn)
 Attack Submarine Naval Unit	180	30 / 7 MP +50% vs. Subs	Rocketry, Radio, Combustion Uranium	1 cargo space (Scouts, Explorers, Missionaries, Spies, GP) invisible for most units, can see Submarines can move through impassable terrain can explore rival territory, 50% withdraw chance
 Axeman Melee Unit	35	5 / 1 MP +50% vs. Melee	Bronze Working Copper or Iron	—
 Ballista Elephant Mounted Unit Khmer (War Elephant)	60	8 / 1 MP +50% vs. Mounted	Construction, Horseback Riding Ivory	doesn't receive defensive bonuses targets Mounted Units first in combat outside cities
 Battleship Naval Unit	225	40 / 6 MP	Industrialism Oil or Uranium	causes collateral damage can bombard city defenses (-20% per turn)
 Berserker Melee Unit Viking (Maceman)	70	8 / 1 MP +50% vs. Melee	Civil Service, Machinery Copper or Iron	+10% city attack starts with Amphibious
 Bomber Air Unit	140	16 / 1 MP / 8 R -50% vs. Water	Radio, Flight Oil	causes collateral damage can destroy tile improvements can bombard city defenses (-16% per turn)
 Bowman Archery Unit Babylonian (Archer)	25	3 / 1 MP +50% vs. Melee	Archery	1 first strike +50% city defense +25% hills defense
 Buddhist Missionary National Unit	40	0 / 2 MP	Buddhism Buddhist Monastery	3 allowed** can spread Buddhism
 Camel Archer Mounted Unit Arabian (Knight)	90	10 / 2 MP	Guilds, Archery, Horseback Riding	immune to first strikes doesn't receive defensive bonuses can withdraw from combat (15% chance) flank attack against Catapult and Trebuchet
 Cannon Siege Weapon	100	12 / 1 MP	Steel Iron	doesn't receive defensive bonuses max. 80% damage to enemy, causes collateral damage immune to collateral damage from Siege Weapons can bombard city defenses (-12% per turn)

Unit	Hammers*	Str./Movement	Prereq.	Special abilities
 Caravel Naval Unit	60	3 / 3 MP	Optics	1 cargo space (Scouts, Explorers, Missionaries, Spies, Great People) can explore rival territory
 Carrack Naval Unit Portuguese (Caravel)	60	3 / 3 MP	Optics	2 cargo spaces can explore rival territory
 Carrier Naval Unit	175	16 / 5 MP	Industrialism Oil or Uranium	3 cargo spaces (Fighters)
 Cataphract Mounted Unit Byzantine (Knight)	90	12 / 2 MP	Guilds, Archery, Horseback Riding Horse and Iron	doesn't receive defensive bonuses flank attack against Catapult and Trebuchet
 Catapult Siege Weapon	50	5 / 1 MP	Construction	doesn't receive defensive bonuses max. 75% damage to enemy, causes collateral damage immune to collateral damage from Siege Weapons can bombard city defenses (-8% per turn)
 Cavalry Mounted Unit	120	15 / 2 MP +50% attack vs. Cannon	Rifling, Military Tradition, Horseback Riding Horse	doesn't receive defensive bonuses can withdraw from combat (30% chance) flank attack against Cannon
 Cereal Mills Exec. National Unit	100	0 / 2 MP	—	can expand Cereal Mills
 Chariot Mounted Unit	30	4 / 2 MP +100% attack vs. Axeman	Wheel Horse	doesn't receive defensive bonuses can withdraw from combat (10% chance)
 Cho-Ko-Nu Archery Unit Chinese (Crossbowman)	60	6 / 1 MP +50% vs. Melee	Machinery, Archery Iron	2 first strikes causes collateral damage
 Christian Missionary National Unit	40	0 / 2 MP	Christianity Christian Monastery	3 allowed** can spread Christianity
 Civ Jewels Exec. National Unit	100	0 / 2 MP	—	can expand Civilized Jewelers Inc
 Confucian Missionary National Unit	40	0 / 2 MP	Confucianism Confucian Monastery	3 allowed** can spread Confucianism
 Conquistador Mounted Unit Spanish (Cuirassier)	100	12 / 2 MP +50% vs. Melee	Gunpowder, Military Tradition, Horseback Riding Horse and Iron	immune to first strikes can withdraw from combat (15% chance) flank attack against Cannon
 Cossack Mounted Unit Russian (Cavalry)	120	15 / 2 MP +50% att. vs. Cannon +50% vs. Mounted	Rifling, Military Tradition, Horseback Riding Horse	doesn't receive defensive bonuses can withdraw from combat (30% chance) flank attack against Cannon
 CreateCon Exec. National Unit	100	0 / 2 MP	—	can expand Creative Constructions

Unit	Hammers*	Str./Movement	Prereq.	Special abilities
 Crossbowman Archery Unit	60	6 / 1 MP +50% vs. Melee	Machinery, Archery Iron	1 first strike
 Cuirassier Mounted Unit	100	12 / 2 MP	Gunpowder, Military Tradition, Horseback Riding Horse and Iron	immune to first strikes doesn't receive defensive bonuses can withdraw from combat (15% chance) flank attack against Cannon
 Destroyer Naval Unit	200	30 / 8 MP	Combustion Oil or Uranium	can see Submarines can intercept aircraft (30% chance) can bombard city defenses (-16% per turn)
 Dog Soldier Melee Unit Native American (Axeman)	35	4 / 1 MP +100% vs. Melee	Bronze Working	—
 East Indiaman Naval Unit Dutch (Galleon)	80	6 / 4 MP	Astronomy	4 cargo spaces can explore rival territory bombardment ignores Walls and Castles
 Explorer Recon Unit	40	4 / 2 MP	Compass	better results from Tribal Villages can only defend ignores terrain movement costs starts with Guerilla I and Woodsman I
 Fast Worker Indian (Worker) with food	60	0 / 3 MP	—	can build tile improvements +25% production speed for Expansive Leaders
 Fighter Air Unit	100	12 / 1 MP / 6 R	Flight Oil	can intercept aircraft (100% chance) can destroy tile improvements can bombard city defenses (-8% per turn) no XP for shooting down units that cannot defend
 Frigate Naval Unit	90	8 / 4 MP	Chemistry, Astronomy Iron	can bombard city defenses (-8% per turn) bombardment ignores Walls and Castles
 Galleon Naval Unit	80	4 / 4 MP	Astronomy	3 cargo spaces
 Galley Naval Unit	50	2 / 2 MP	Sailing	2 cargo spaces cannot enter Ocean
 Gallic Warrior Melee Unit Celtic (Swordsman)	40	6 / 1 MP	Iron Working Copper or Iron	+10% city attack starts with Guerilla I
 Great Artist Great Person		0 / 2 MP	—	can start a Golden Age, can discover a Technology can create a Great Work (+4000 culture)*** can join city as Great Artist can construct Civilized Jewelers Inc
 Great Engineer Great Person		0 / 2 MP	—	can start a Golden Age, can discover a Technology can hurry production can join city as Great Engineer can construct Creative Constructions and Mining Inc
 Great General Great Person		0 / 2 MP	—	can provide 20 XP to units in the same tile can attach to unit and allows free upgrades can join city as Great Military Instructor can construct Military Academy

Unit	Hammers	Str./Movement	Prereq.	Special abilities
 Great Merchant Great Person		0 / 2 MP	—	can start a Golden Age, can discover a Technology can conduct a trade mission, can explore rival territory can join city as Great Merchant can construct Cereal Mills and Sid's Sushi Co
 Great Prophet Great Person		0 / 2 MP	—	can start a Golden Age, can discover a Technology can join city as Great Prophet , can construct Church of the Nativity , Dai Miao , Kashi Vishwanath , Kong Miao , Mahabodhi , Masjid al-Haram , Temple of Solomon
 Great Scientist Great Person		0 / 2 MP	—	can start a Golden Age, can discover a Technology can join city as Great Scientist can construct Academy , Aluminum Co and Standard Ethanol
 Great Spy Great Person		0 / 2 MP	—	can start a Golden Age, invisible to all units can infiltrate another player's city (+3000 espionage)*** can join city as Great Spy can construct Scotland Yard
 Grenadier Gunpowder Unit	100	12 / 1 MP +50% attack vs. Rifeman	Military Science	—
 Guided Missile Missile	60	40 / 1 MP / 4 R	Rocketry, Radio	can evade interception (100% chance) can destroy tile improvements can bombard city defenses (-16% per turn)
 Gunship Helicopter Unit	160	24 / 4 MP +50% vs. Armored	Advanced Flight Oil	cannot capture enemy cities or units, doesn't receive defensive bonuses, ignores terrain movement costs can withdraw from combat (25% chance) flank attack against Artillery and Mobile Artillery
 Hindu Missionary National Unit	40	0 / 2 MP	Hinduism Hindu Monastery	3 allowed** can spread Hinduism
 Holkan Melee Unit Maya (Spearman)	35	4 / 1 MP +50% vs. Mounted	Bronze Working, Hunting	immune to first strikes
 Horse Archer Mounted Unit	50	6 / 2 MP +50% attack vs. Catapult, Trebuchet	Horseback Riding, Archery Horse	immune to first strikes doesn't receive defensive bonuses can withdraw from combat (20% chance) flank attack against Catapult and Trebuchet
 Hwacha Siege Weapon Korean (Catapult)	50	5 / 1 MP +50% vs. Melee	Construction	doesn't receive defensive bonuses max. 75% damage to enemy, causes collateral damage immune to collateral damage from Siege Weapons can bombard city defenses (-8% per turn)
 ICBM Nuclear Missile	500	global range	Fission, Rocketry Uranium Manhattan Proj.	can nuke enemy lands
 Immortal Mounted Unit Persian (Chariot)	30	4 / 2 MP +100% att. vs. Axeman +50% vs. Archery	Wheel Horse	can withdraw from combat (10% chance)
 Impi Melee Unit Zulu (Spearman)	35	4 / 2 MP +50% vs. Mounted	Hunting Copper or Iron	starts with Mobility
 Infantry Gunpowder Unit	140	20 / 1 MP +25% vs. Gunpowder	Assembly Line, Rifling	—

Unit	Hammers	Str./Movement	Prereq.	Special abilities
 Ironclad Naval Unit	100	12 / 2 MP	Steam Power, Steel Iron and Coal	cannot enter Ocean can bombard city defenses (-12% per turn)
 Islamic Missionary National Unit	40	0 / 2 MP	Islam Islamic Monastery	3 allowed** can spread Islam
 Jaguar Melee Unit Aztec (Swordsman)	35	5 / 1 MP	Iron Working	+10% city attack starts with Woodsman I
 Janissary Gunpowder Unit Ottoman (Musketeer)	80	9 / 1 MP +25% vs. Archery, Mounted, Melee	Gunpowder	—
 Jet Fighter Air Unit	150	24 / 1 MP / 10 R	Advanced Flight Aluminum and Oil	can intercept aircraft (100% chance) can destroy tile improvements can bombard city defenses (-12% per turn) no XP for shooting down units that cannot defend
 Jewish Missionary National Unit	40	0 / 2 MP	Judaism Jewish Monastery	3 allowed** can spread Judaism
 Keshik Mounted Unit Mongolian (Horse Archer)	50	6 / 2 MP +50% attack vs. Catapult, Trebuchet	Horseback Riding, Archery Horse	doesn't receive defensive bonuses 1 first strike, ignores terrain movement costs can withdraw from combat (20% chance) flank attack against Catapult and Trebuchet
 Knight Mounted Unit	90	10 / 2 MP	Guilds, Archery, Horseback Riding Horse and Iron	immune to first strikes doesn't receive defensive bonuses flank attack against Catapult and Trebuchet
 Landsknecht Melee Unit Holy Roman (Pikeman)	60	6 / 1 MP +100% vs. Mounted +100% vs. Melee	Engineering Iron	—
 Longbowman Archery Unit	50	6 / 1 MP	Feudalism, Archery	1 first strike +25% city defense +25% hills defense
 Maceman Melee Unit	70	8 / 1 MP +50% vs. Melee	Civil Service, Machinery Copper or Iron	—
 Machine Gun Gunpowder Unit	125	18 / 1 MP +50% vs. Gunpowder	Railroad	can only defend 1 first strike immune to collateral damage from Siege Weapons
 Marine Gunpowder Unit	160	24 / 1 MP +50% attack vs. Machine Gun, Artillery	Industrialism, Rifling	starts with Amphibious
 Mech. Infantry Gunpowder Unit	200	32 / 2 MP	Robotics, Rifling	starts with March
 Mining Inc Exec. National Unit	100	0 / 2 MP	—	can expand Mining Inc

Unit	Hammers*	Str./Movement	Prereq.	Special abilities
 Missile Cruiser Naval Unit	260	40 / 7 MP	Robotics Oil or Uranium	4 cargo spaces (Missiles) causes collateral damage can bombard city defenses (-20% per turn)
 Mobile Artillery Siege Weapon	200	26 / 2 MP +50% vs. Siege	Laser, Artillery Oil	doesn't receive defensive bonuses max. 85% damage to enemy, causes collateral damage immune to collateral damage from Siege Weapons can bombard city defenses (-16% per turn)
 Mobile SAM Gunpowder Unit	220	22 / 2 MP / 1 R +50% vs. Helicopter	Laser Oil	can intercept aircraft (50% chance)
 Modern Armor Armored Unit	240	40 / 2 MP	Computers, Composites Aluminum and Oil	1 first strike doesn't receive defensive bonuses starts with Blitz
 Musketeer Gunpowder Unit French (Musketman)	80	9 / 2 MP	Gunpowder	—
 Musketman Gunpowder Unit	80	9 / 1 MP	Gunpowder	—
 Navy SEAL Gunpowder Unit America (Marine)	160	24 / 1 MP +50% attack vs. Machine Gun, Artillery	Industrialism, Rifling	1-2 first strikes starts with Amphibious and March
 Numidian Cavalry Mounted Unit Carthaginian (Horse Archer)	50	5 / 2 MP +50% attack vs. Catapult, Trebuchet +50% vs. Melee	Horseback Riding, Archery Horse	immune to first strikes, doesn't receive defensive bonuses can withdraw from combat (20% chance) flank attack against Catapult and Trebuchet starts with Flanking I
 Oromo Warrior Gunpowder Unit Ethiopian (Musketman)	80	9 / 1 MP	Gunpowder	1 first strike immune to first strikes starts with Drill I and Drill II
 Panzer Armored Unit German (Tank)	180	28 / 2 MP +50% vs. Armored	Industrialism, Rifling Oil	doesn't receive defensive bonuses starts with Blitz
 Paratrooper Gunpowder Unit	160	24 / 1 MP	Fascism, Rifling, Flight	can perform paratroops (5 range) can evade interception (25% chance)
 Phalanx Melee Unit Greek (Axeman)	35	5 / 1 MP +50% vs. Melee +100% def. vs. Chariot	Bronze Working Copper or Iron	—
 Pikeman Melee Unit	60	6 / 1 MP +100% vs. Mounted	Engineering Iron	—
 Praetorian Melee Unit Roman (Swordsman)	45	8 / 1 MP	Iron Working Iron	—
 Privateer Naval Unit	80	6 / 4 MP	Chemistry, Astronomy	hidden nationality can attack / blockade without declaring war starts with Sentry

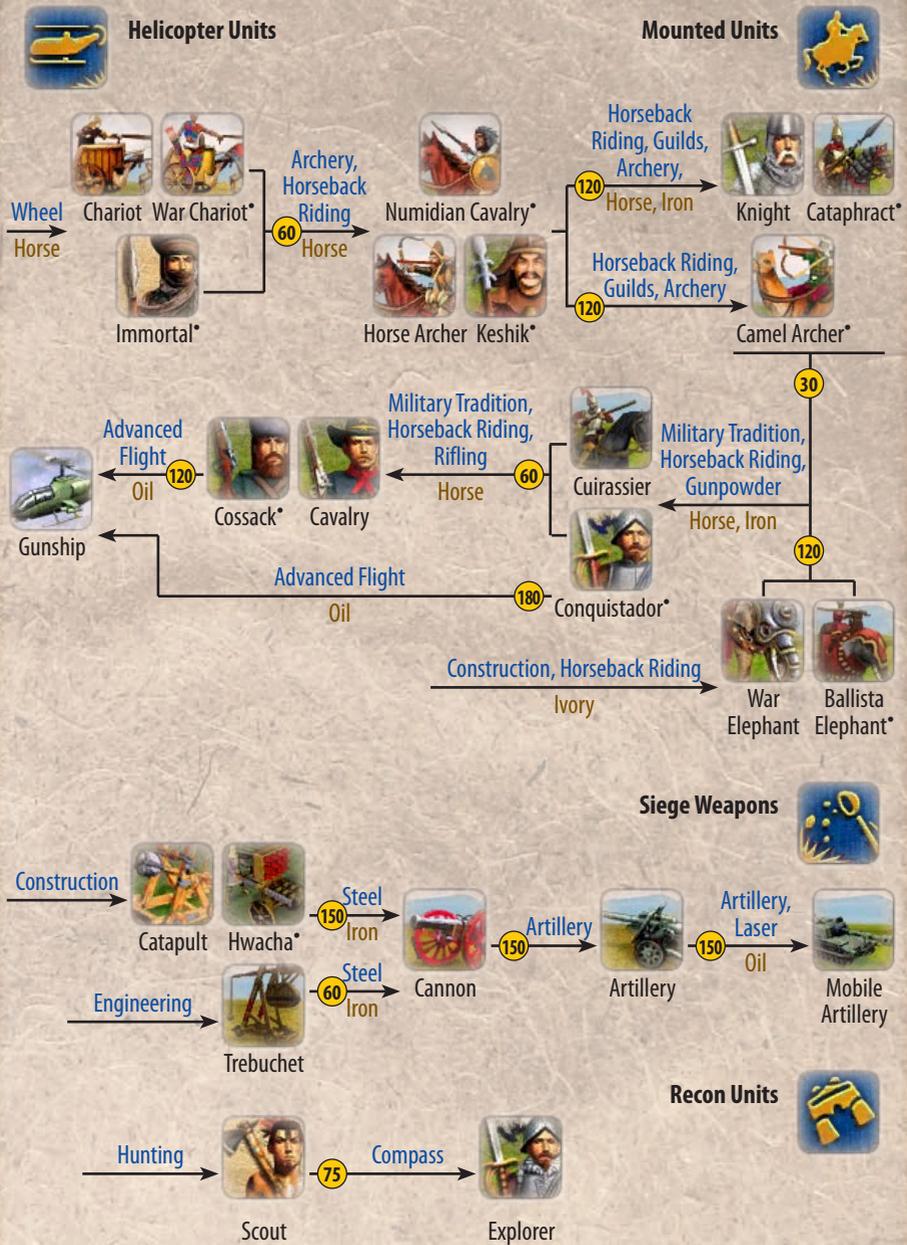
Unit	Hammers	Str./Movement	Prereq.	Special abilities
 Quechua Melee Unit Incan (Warrior)	15	2 / 1 MP +100% vs. Archery	—	+25% city defense starts with Combat I
 Redcoat Gunpowder Unit English (Rifleman)	110	14 / 1 MP +25% vs. Mounted +25% vs. Gunpowder	Rifling	—
 Rifleman Gunpowder Unit	110	14 / 1 MP +25% vs. Mounted	Rifling	—
 SAM Infantry Gunpowder Unit	150	18 / 1 MP / 1 R +75% vs. Helicopter	Rocketry	can intercept aircraft (40% chance)
 Samurai Melee Unit Japanese (Maceman)	70	8 / 1 MP +50% vs. Melee	Civil Service, Machinery Iron	2 first strikes starts with Drill I
 Scout Recon Unit	15	1 / 2 MP +100% vs. Animals	Hunting	better results from Tribal Villages can only defend
 Settler	100 with food	0 / 2 MP	—	can found a new city +50% production speed for Imperialistic Leaders (hammers only)
 Ship of the Line Naval Unit	120	8 / 3 MP +50% vs. Frigate	Astronomy, Military Science Iron	can bombard city defenses (-12% per turn) bombardment ignores Walls and Castles
 Sid's Sushi Exec. National Unit	100	0 / 2 MP	—	can expand Sid's Sushi Co
 Skirmisher Archery Unit Malinese (Archer)	25	4 / 1 MP	Archery	1-2 first strikes 50% city defense 25% hills defense
 Spearman Melee Unit	35	4 / 1 MP +100% vs. Mounted	Hunting Copper or Iron	—
 Spy	40	0 / 1 MP	Alphabet	invisible to all units, can explore rival territory helps thwart rival spies starts with Commando
 Std Ethanol Exec. National Unit	100	0 / 2 MP	—	can expand Standard Ethanol
 Stealth Bomber Air Unit	200	20 / 1 MP / 12 MP -50% vs. Naval	Stealth, Robotics Aluminum and Oil	can evade interception (50% chance) causes collateral damage can destroy tile improvements can bombard city defenses (-20% per turn)
 Stealth Destroyer Naval Unit	250	30 / 8 MP	Stealth, Robotics Oil or Uranium	invisible to most units can see stealth ships can intercept aircraft (50% chance) can bombard city defenses (-16% per turn)

Unit	Hammers*	Str./Movement	Prereq.	Special abilities
 Submarine Naval Unit	150	24 / 6 MP	Radio Oil or Uranium	3 cargo spaces (Missiles), can explore rival territory invisible to most units, can see submarines can move through impassable terrain can withdraw from combat (50% chance)
 Swordsman Melee Unit	40	6 / 1 MP	Iron Working Iron	+10% city attack
 Tactical Nuke Missile	250	0 / 1 MP / 4 R	Fission, Rocketry Uranium Manhattan Proj.	can nuke enemy lands can evade interception (50% chance)
 Tank Armored Unit	180	28 / 2 MP	Industrialism, Rifling Oil	doesn't receive defensive bonuses starts with Blitz
 Taoist Missionary National Unit	40	0 / 2 MP	Taoism Taoist Monastery	3 allowed** can spread Taoism
 Transport Naval Unit	125	16 / 5 MP	Combustion Oil or Uranium	4 cargo spaces
 Trebuchet Siege Weapon	80	4 / 1 MP +100% city attack	Engineering	doesn't receive defensive bonuses max. 75% damage to enemy, causes collateral damage immune to collateral damage from Siege Weapons can bombard city defenses (-16% per turn)
 Trireme Naval Unit	50	2 / 2 MP +50% vs. Galley	Metal Casting, Sailing	cannot enter Ocean
 Vulture Melee Unit Sumerian (Axeman)	35	6 / 1 MP +25% vs. Melee	Bronze Working Copper or Iron	—
 War Chariot Mounted Unit Egyptian (Chariot)	30	5 / 2 MP +100% attack vs. Axeman	Wheel Horse	immune to first strikes doesn't receive defensive bonuses can withdraw from combat (10% chance)
 War Elephant Mounted Unit	60	8 / 1 MP +50% vs. Mounted	Construction, Horseback Riding Iron	doesn't receive defensive bonuses
 Warrior Melee Unit	15	2 / 1 MP	—	+25% city defense
 Work Boat Naval Unit	30	0 / 2 MP	Fishing	cannot enter neutral Ocean tiles until Astronomy can create Fishing Boats , Whaling Boats and Offshore Platform
 Worker Naval Unit	60 with food	0 / 2 MP	—	can build tile improvements +25% production speed for Expansive Leaders (hammers only)

MP movement points R operational range

* Assumes **Normal** Game Speed. Factors for other conditions are: **Quick** ×0.67, **Epic** ×1.50, **Marathon** ×3.00 (!)
example: *Longbowman on Epic will cost 75 hammers instead of 50*

** number depends on map size *** bonus depends on map size and game length

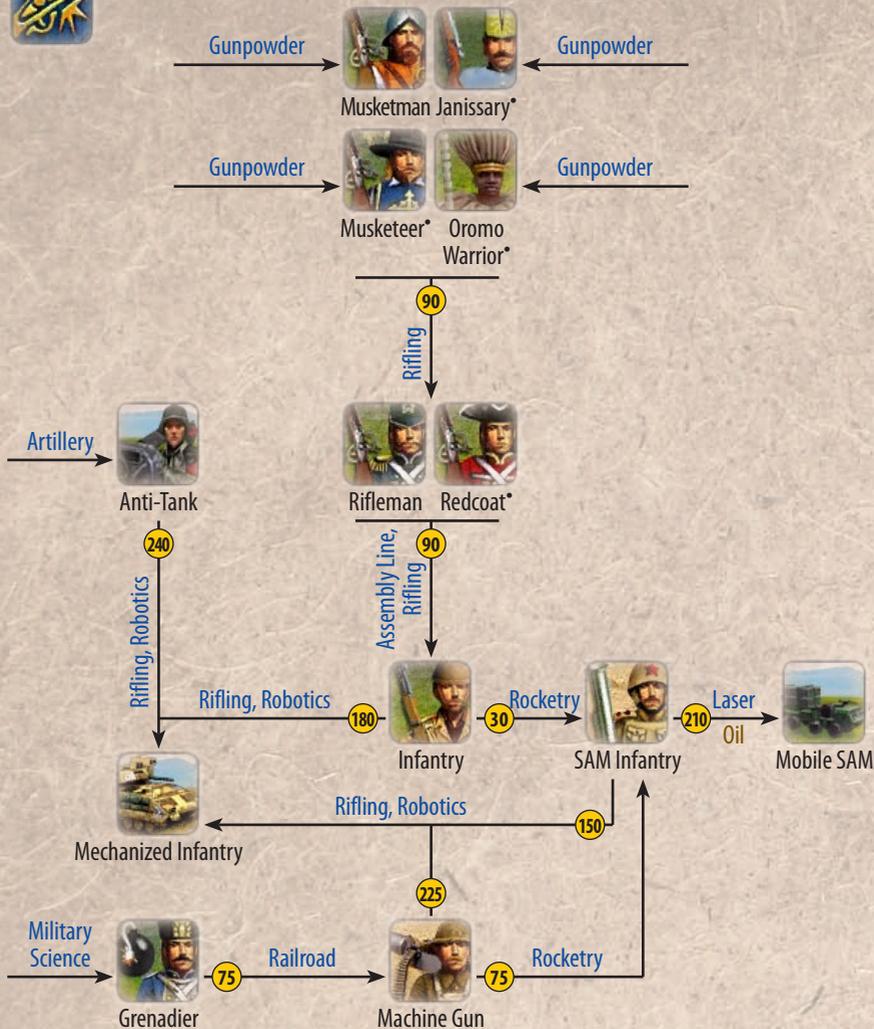


60 Upgrade cost (gold). Assumes **Normal** Game Speed. Factors for other conditions are: **Quick** × 0.67, **Epic** × 1.50, **Marathon** × 2.00. For calculating long-path upgrades just add all specified values. Also, at the end of calculations **you must add an additional upgrade cost which is 20 gold per unit** (all Game Speeds).
Example 1: Upgrading 2 Warriors to 2 Spearmans on Epic cost 220 gold – 2 units × (20 + (60 × 1.50)) = 2 units × 110 = 220.
Example 2: Upgrading 3 Horse Archers to 3 Cuirassiers on Marathon cost 960 gold – 3 units × (20 + ((120 + 30) × 2.00)) = 960.

Units Upgrade Paths (Land Units)



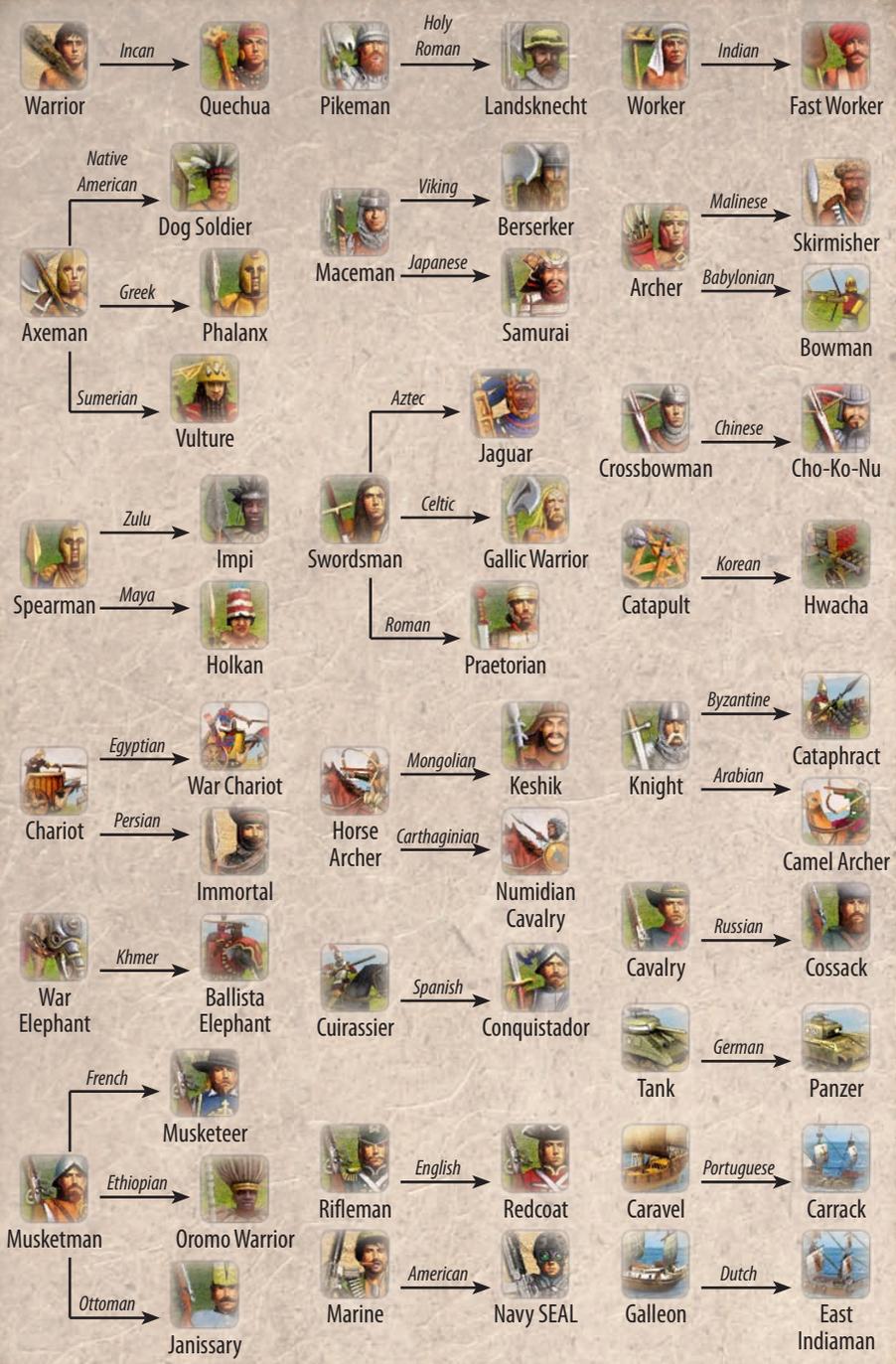
Gunpowder Units



Armored Units



Unique Units Replaces

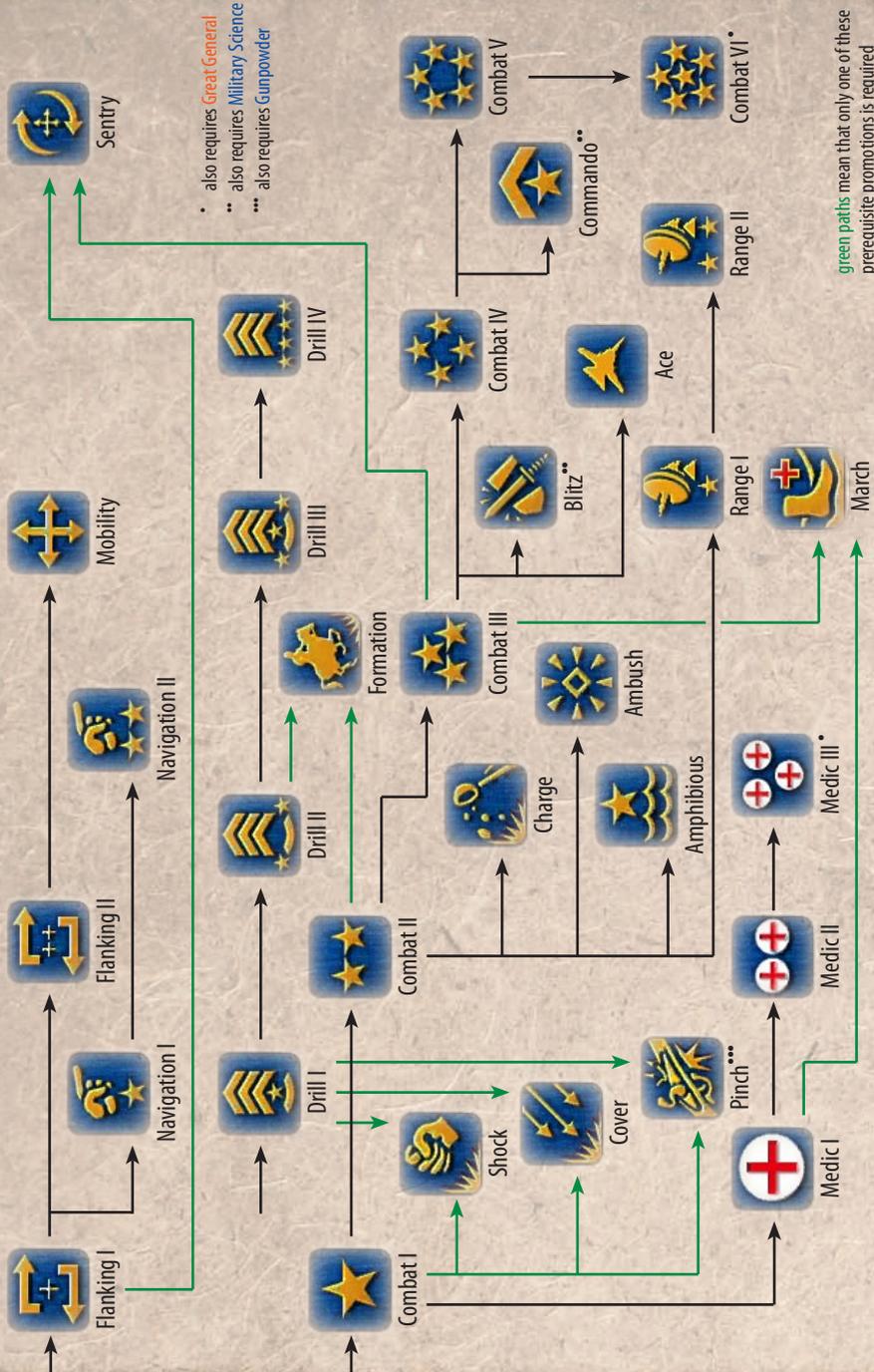


Promotion	Eligible Units	Effects
 Accuracy <i>requires: City Raider I or Barrage I</i>	Siege Weapons	+8% city bombard damage
 Ace <i>requires: Combat III</i>	Air	+25% evasion chance
 Ambush <i>requires: Combat II</i>	Siege, Gunpowder, Air, Helicopter, Armored	+25% vs. Armored Units
 Amphibious <i>requires: Combat II</i>	Recon, Archery, Melee, Mounted, Gunpowder	no combat penalty for attacking from sea no combat penalty for crossing river
 Barrage I	Siege, Armored, Naval	+20% collateral damage
 Barrage II <i>requires: Barrage I</i>	Siege, Armored, Naval	+30% collateral damage +10% vs. Melee Units
 Barrage III <i>requires: Barrage II</i>	Siege, Armored, Naval	+50% collateral damage +10% vs. Gunpowder Units
 Blitz <i>requires: Combat III, Military Science</i>	Mounted, Armored, Helicopter, Naval	can attack multiple times per turn
 Charge <i>requires: Combat I</i>	Mounted, Melee, Armored, Helicopter	+25% vs. Siege Weapons
 City Garrison I	Archery, Gunpowder	+20% city defense
 City Garrison II <i>requires: City Garrison I</i>	Archery, Gunpowder	+25% city defense
 City Garrison III <i>requires: City Garrison II</i>	Archery, Gunpowder	+30% city defense +10% vs. Melee Units
 City Raider I	Melee, Siege, Armored	+20% city attack
 City Raider II <i>requires: City Raider I</i>	Melee, Siege, Armored	+25% city attack
 City Raider III <i>requires: City Raider II</i>	Melee, Siege, Armored	+30% city attack +10% vs. Gunpowder Units
 Combat I	all	+10% strength
 Combat II <i>requires: Combat I</i>	all	+10% strength
 Combat III <i>requires: Combat II</i>	all	+10% strength

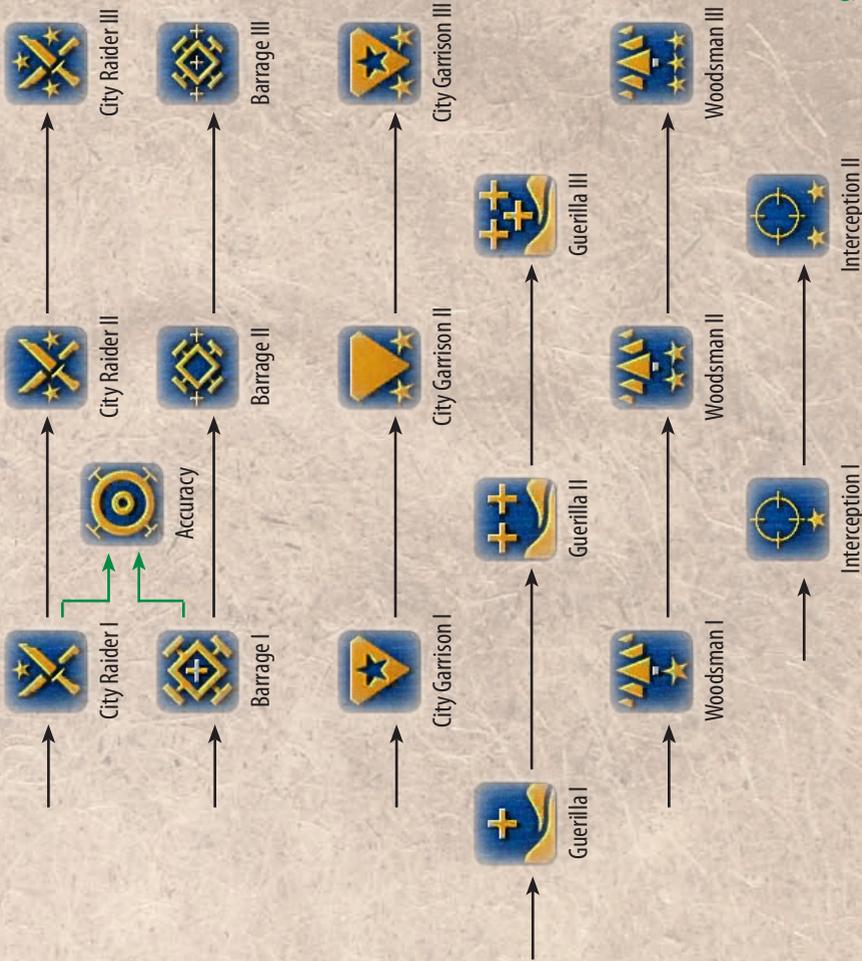
Promotion	Eligible Units	Effects
 Combat IV <i>requires: Combat III</i>	all	+10% strength heals extra 10% damage per turn in neutral lands
 Combat V <i>requires: Combat IV</i>	all	+10% strength heals extra 10% damage per turn in enemy lands
 Combat VI <i>requires: Combat V, Great General</i>	all	+25% strength
 Commando <i>requires: Combat IV, Military Science</i>	Recon, Archery, Melee, Mounted, Gunpowder, Armored	can use enemy Roads and Railroads
 Cover <i>requires: Combat I or Drill I</i>	Archery, Melee, Gunpowder	+25% vs. Archery Units
 Drill I	Archery, Siege, Gunpowder, Armored, Helicopter, Naval	+1 first strike chance
 Drill II <i>requires: Drill I</i>	Archery, Siege, Melee, Gunpowder, Armored, Helicopter, Naval	+1 first strike suffers -20% collateral damage
 Drill III <i>requires: Drill II</i>	Archery, Siege, Melee, Gunpowder, Armored, Helicopter, Naval	+2 first strike chances suffers -20% collateral damage
 Drill IV <i>requires: Drill III</i>	Archery, Siege, Melee, Gunpowder, Armored, Helicopter, Naval	+2 first strikes suffers -20% collateral damage +10% vs. Mounted Units
 Flanking I	Mounted, Armored, Helicopter, Naval	+10% withdrawal chance
 Flanking II <i>requires: Flanking I</i>	Mounted, Armored, Helicopter, Naval	immune to first strikes +20% withdrawal chance
 Formation <i>requires: Combat II or Drill II</i>	Archery, Mounted, Melee, Gunpowder	+25% vs. Mounted Units
 Guerrilla I	Recon, Archery, Gunpowder	+20% hills defense
 Guerrilla II <i>requires: Guerrilla I</i>	Recon, Archery, Melee, Gunpowder	double movement in hills +30% hills defense
 Guerrilla III <i>requires: Guerrilla II</i>	Archery, Melee, Gunpowder	+25% hills attack +50% withdrawal chance
 Interception I	Gunpowder, Air	+10% interception chance
 Interception II <i>requires: Interception I</i>	Gunpowder, Air	+20% interception chance
 Leadership <i>requires: Great General</i>	all except Air	gains +100% experience from combat

Promotion	Eligible Units	Effects
 March <i>requires: Combat III or Medic I</i>	Recon, Archery, Melee, Mounted, Siege, Gunpowder	can heal while moving
 Medic I <i>requires: Combat I</i>	Recon, Archery, Melee, Mounted, Siege, Gunpowder, Naval	heals units in the same tile extra 10% damage per turn
 Medic II <i>requires: Medic I</i>	Recon, Archery, Melee, Mounted, Siege, Gunpowder, Naval	heals units in adjacent tiles extra 10% damage per turn
 Medic III <i>requires: Medic II, Great General</i>	Recon, Archery, Melee, Mounted, Siege, Gunpowder, Naval	heals units in the same tile extra 15% damage per turn heals units in adjacent tiles extra 15% damage per turn
 Mobility <i>requires: Flanking II</i>	Mounted, Armored	-1 terrain movement cost
 Morale <i>requires: Great General</i>	all except Air	+1 movement range
 Navigation I <i>requires: Flanking I</i>	Naval	+1 movement range
 Navigation II <i>requires: Flanking I, Navigation I</i>	Naval	+1 movement range
 Pinch <i>requires: Combat I or Drill I, Gunpowder</i>	Mounted, Gunpowder, Armored, Helicopter, Air	+25% vs. Gunpowder Units
 Range I <i>requires: Combat II</i>	Air	+1 operational range
 Range II <i>requires: Range I</i>	Air	+1 operational range
 Sentry <i>requires: Flanking I or Combat III</i>	Recon, Mounted, Helicopter, Naval	+1 visibility range
 Shock <i>requires: Combat I or Drill I</i>	Archery, Mounted, Melee, Siege	+25% vs. Melee Units
 Tactics <i>requires: Great General</i>	all except Air	+30% withdrawal chance
 Woodsmen I	Recon, Melee, Gunpowder	+20% jungle and forest defense
 Woodsmen II <i>requires: Woodsmen I</i>	Recon, Melee, Gunpowder	double movement in jungle and forest +30% jungle and forest defense
 Woodsmen III <i>requires: Woodsmen II</i>	Melee, Gunpowder	+2 first strikes heals units in the same tile extra 15% damage per turn +50% jungle and forest attack

Promotion Paths



green paths mean that only one of these prerequisite promotions is required



green paths mean that only one of these prerequisite promotions is required

Promotion Paths

Tech	Beakers**	Prereq. Techs	Can build	Effects
 Advanced Flight Modern Era	5000	Satellites, Flight	Gunship, Jet Fighter	obsoletes Stable
 Aesthetics Classical Era	300	Writing	Parthenon (W), Statue of Zeus (W), Shwedagon Paya (W)	—
 Agriculture Ancient Era	60	—	Farm	—
 Alphabet Classical Era	300	Writing	Spy	enables technology trading enables a city to build Research
 Animal Husbandry Ancient Era	100	Hunting or Agriculture	Pasture	reveals Horse
 Archery Ancient Era	60	Hunting	Archer, Skirmisher, Bowman, Longbowman*, Crossbowman*, Cho-Ko-Nu*, Horse Archer*, Numidian Cavalry*, Keshik*, Camel Archer*	—
 Artillery Industrial Era	4000	Physics, Steel, Rifling	Anti-Tank, Artillery, Mobile Artillery*	—
 Assembly Line Industrial Era	5000	Corporation, Steam Power	Infantry* Factory, Assembly Plant, Coal Plant, Shale Plant, Pentagon (W)	—
 Astronomy Renaissance Era	2000	Calendar, Optics	Galleon, East Indiaman, Privateer*, Frigate*, Ship of the Line* Observatory, Salon	enables trade on Ocean obsoletes Monument, Stonehenge (W), Colossus (W)
 Banking Medieval Era	700	Currency, Guilds	Bank, Stock Exchange	enables Mercantilism
 Biology Industrial Era	3600	Scientific Method, Chemistry	National Park (NW)	can build Farm without irrigation +1 food from Farm
 Bronze Working Ancient Era	120	Mining	Axeman, Phalanx, Vulture, Dog Soldier, Holkan*	can chop down a Forest reveals Copper enables Slavery
 Calendar Classical Era	350	Sailing, Mathematics	Plantation Mausoleum of Mausollos (W)	centers World Map
 Chemistry Renaissance Era	1800	Engineering, Gunpowder	Privateer*, Frigate*	+1 hammer from Workshop
 Civil Service Medieval Era	800	Code of Laws or Feudalism, Mathematics	Maceman*, Samurai*, Berserker*	Farms spread irrigation enables Bureaucracy
 Code of Laws Classical Era	350	Priesthood or Currency, Writing	Courthouse, Sacrificial Altar, Rathaus, Chichen Itza (W)	enables Caste System first to discover founds Confucianism

Tech	Beakers**	Prereq. Techs	Can build	Effects
 Combustion	Industrial Era	3600 Railroad	Well Transport, Destroyer, Attack Submarine* Public Transportation, Creative Constr. (C)*	obsoletes Whale
 Communism	Industrial Era	2800 Scientific Method, Liberalism	Intelligence Agency, Kremlin (W)	first to discover receives Great Spy enables permanent alliances enables State Property
 Compass	Classical Era	400 Iron Working, Sailing	Explorer Harbor, Cothon	—
 Composites	Modern Era	7500 Satellites, Plastics	Modern Armor* Space Ship Casing	—
 Computers	Modern Era	6500 Plastics, Radio	Modern Armor* Internet (WP)	obsoletes Angkor Wat (W), Spiral Minaret (W), University of Sankore (W)
 Constitution	Renaissance Era	2000 Code of Laws, Nationalism	Jail, Mausoleum	enables Representation
 Construction	Classical Era	350 Mathematics, Masonry	War Elephant*, Ballista Elephant*, Catapult, Hwacha Colosseum, Odeon, Ball Court, Garden	crossing rivers no longer slows unit movement
 Corporation	Renaissance Era	1600 Constitution, Economy	Wall Street (NW), all Corporations*	+1 Trade Route per city obsoletes Great Lighthouse (W)
 Currency	Classical Era	400 Mathematics or Alphabet	Market, Forum, Grocer*, Apothecary*	+1 Trade Route per city enables gold trade via diplomacy enables a city to build Wealth
 Democracy	Renaissance Era	2800 Printing Press, Constitution	Security Bureau, Statue of Liberty (W)	enables Universal Suffrage, Emancipation
 Divine Right	Medieval Era	1200 Theology, Monarchy	Versailles (W), Spiral Minaret (W)	first to discover founds Islam
 Drama	Classical Era	300 Aesthetics	Theatre, Pavilion, Hippodrome, Globe Theatre (NW)	can adjust culture rate
 Ecology	Modern Era	5500 Plastics or Fission, Biology	Recycling Center, Space Ship Life Support	can scrub Fallout
 Economics	Renaissance Era	1400 Education, Banking	Customs House, Feitoria	first to discover receives Great Merchant enables Free Market obsoletes Castle
 Education	Renaissance Era	1800 Paper	University, Seowon, Oxford University (NW)	—
 Electricity	Industrial Era	4500 Physics	Bunker, Bomb Shelters, Broadway (W)	+1 commerce from Windmill +2 commerce from Watermill

Tech	Beakers**	Prereq. Techs	Can build	Effects
 Engineering Medieval Era	1000	Machinery, Construction	Pikeman , Landsknecht , Trebuchet Castle , Citadel , Notre Dame (W)	+1 road movement
 Fascism Industrial Era	2400	Nationalism, Assembly Plant	Paratrooper* Mt. Rushmore (NW)	first to discover receives Great General enables permanent alliances enables Police State
 Feudalism Medieval Era	700	Writing, Monarchy	Longbowman*	enables vassal states enables Vassalage , Serfdom
 Fiber Optics Modern Era	7500	Computers or Laser	Space Ship Cockpit	obsoletes Kremlin (W)
 Fishing Ancient Era	40	—	Fishing Boat Work Boat	can work water tiles
 Fission Industrial Era	5500	Electricity	Tactical Nuke* , ICBM* Nuclear Plant , Manhattan Project (WP)	—
 Flight Modern Era	5000	Physics, Combustion	Paratrooper* , Carrier , Fighter , Bomber* Airport	—
 Fusion Future Era	8000	Fiber Optics, Fission	Space Ship Engine	first to discover receives Great Engineer
 Future Tech Future Era	10 000	Stealth, Genetics	multiple future techs may be researched	+1 health in all cities +1 happy in all cities
 Genetics Future Era	7000	Medicine, Superconductors	Space Ship Stasis Chamber	+3 health in all cities
 Guilds Medieval Era	1000	Feudalism, Machinery	Knight* , Camel Archer* , Cataphract* Grocer* , Apothecary*	+1 hammer from Workshop
 Gunpowder Renaissance Era	1200	Education or Guilds	Musketman , Musketeer , Janissary , Oromo Warrior , Conquistador* , Cuirassier*	enables Pinch
 Horseback Riding Classical Era	250	Animal Husbandry	Horse Archer* , Numidian Cav.* , Keshik* , Knight* , Camel Archer* , Cataphract* , Conquistador* , Cuirassier* , Cavalry* , Cossack* , War Elephant* , Ballista Elephant* Stable , Ger	
 Hunting Ancient Era	40	—	Camp Scout , Spearman , Impi , Holkan	—
 Industrialism Industrial Era	6500	Electricity, Assembly Plant	Marine* , Navy SEAL* , Tank* , Panzer* , Battleship Industrial Park	reveals Aluminum obsoletes Ivory
 Iron Working Classical Era	200	Bronze Working	Swordsman , Jaguar , Gallic Warrior , Praetorian	can remove Jungle reveals Iron

Tech	Beakers**	Prereq. Techs	Can build	Effects
 Laser Modern Era	7000	Plastics, Satellites	Mobile SAM, Mobile Artillery* SDI (TP)	—
 Liberalism Renaissance Era	1400	Philosophy, Education	—	first to discover receives a free technology enables Free Speech, Free Religion
 Literature Classical Era	200	Polytheism, Aesthetics	Heroic Epic (NW), National Epic (NW), Great Library (W)	—
 Machinery Medieval Era	700	Metal Casting	Windmill, Watermill Maceman*, Samurai*, Berserker*, Crossbowman*, Cho-Ko-Nu*	—
 Masonry Ancient Era	80	Mysticism or Mining	Quarry, Walls, Dun, Aqueduct*, Hammam*, Baray*, Pyramids (W), Great Lighthouse (W)*, Great Wall (W)	—
 Mass Media Modern Era	3600	Radio	Broadcast Tower, Hollywood (W), United Nations (W), Civilized Jewelers Inc (C)*	obsoletes Apostolic Palace (W)
 Mathematics Classical Era	250	Writing	Fort Aqueduct*, Hammam*, Baray*, Hanging Gardens (W)	+50% hammers from chopping Forest
 Medicine Industrial Era	4500	Optics, Biology	Hospital, Red Cross (NW), Sid's Sushi Co (C)*	enables Environmentalism
 Meditation Ancient Era	80	Mysticism	Buddhist Monastery, Christian Monastery, Confucian Monastery, Hindu Monastery, Islamic Monastery, Jewish Monastery, Taoist Monastery	first to discover founds Buddhism
 Metal Casting Classical Era	450	Pottery, Bronze Working	Trireme* Workshop Forge, Mint, Colossus (W)	—
 Military Science Renaissance Era	2000	Chemistry	Grenadier, Ship of the Line* Military Academy	enables Blitz, Commando
 Military Tradition Renaissance Era	2000	Music, Nationalism	Conquistador*, Cuirassier*, Cavalry*, Cossack* West Point (NW)	enables Defensive Pacts
 Mining Ancient Era	50	—	Mine	—
 Monarchy Classical Era	300	Priesthood or Monotheism	Winery	enables Hereditary Rule
 Monotheism Ancient Era	120	Masonry, Polytheism	—	enables Organized Religion first to discover founds Judaism
 Music Medieval Era	600	Literature or Drama, Mathematics	Buddhist Stupa, Christian Cathedral, Confucian Academy, Hindu Mandir, Islamic Mosque, Jewish Synagogue, Taoist Pagoda, Sistine Chapel (W)	first to discover receives Great Artist enables a city to build Culture

Tech	Beakers**	Prereq. Techs	Can build	Effects
 Mysticism Ancient Era	50	—	Monument, Obelisk, Stele, Totem Pole, Stonehenge (W)	—
 Nationalism Renaissance Era	1800	Divine Right or Philosophy, Civil Service	Hermitage (NW), Taj Mahal (W)	enables Nationhood
 Optics Medieval Era	600	Machinery, Compass	Caravel, Carrack Whaling Boat	+1 sight across water
 Paper Medieval Era	600	Civil Service or Theology	University of Sankore (W)	enables Map Trading
 Philosophy Medieval Era	800	Code of Laws or Drama, Meditation	Angkor Wat (W)	enables Pacifism first to discover founds Taoism
 Physics Industrial Era	4000	Astronomy, Scientific Method	Airship	first to discover receives Great Scientist reveals Uranium
 Plastics Modern Era	7000	Combustion, Industrialism	Offshore Platform Hydro Plant, Three Gorges Dam (W), Standard Ethanol (C)*	obsoletes Fur
 Polytheism Ancient Era	100	Mysticism	Parthenon (W), Temple of Artemis (W)	first to discover founds Hinduism
 Pottery Ancient Era	80	Agriculture or Fishing, Wheel	Cottage Granary, Terrace	—
 Priesthood Ancient Era	60	Meditation or Polytheism	Buddhist Temple, Christian Temple, Confucian Temple, Hindu Temple, Islamic Temple, Jewish Temple, Taoist Temple, Ziggurat, Oracle (W)	—
 Printing Press Renaissance Era	1600	Machinery, Alphabet, Paper	—	+1 commerce from Hamlet +1 commerce from Town
 Radio Modern Era	6000	Electricity	Submarine, Attack Submarine*, Bomber*, Guided Missile*, Eiffel Tower (W), Rock 'n' Roll (W), Cristo Redentor (W)	—
 Railroad Industrial Era	4500	Steam Power, Steel	Machine Gun Railroad Mining Inc (C)*	—
 Refrigeration Modern Era	4000	Biology, Electricity	Supermarket, Mall, Cereal Mills (C)*	+1 move for Water Units
 Replaceable Parts Renaissance Era	1800	Banking, Printing Press	Lumbermill	+1 hammer from Windmill +1 hammer from Watermill
 Rifling Renaissance Era	2400	Gunpowder, Replaceable Parts	Rifleman, Redcoat, Infantry*, Marine*, Navy SEAL*, Paratrooper*, Tank*, Panzer*, Mechanized Infantry*, Cavalry*, Cossack*	obsoletes Walls, Chichen Itza (W)

Tech	Beakers**	Prereq. Techs	Can build	Effects
 Robotics Modern Era	8000	Computers	Mechanized Infantry*, Missile Cruiser, Stealth Destroyer*, Stealth Bomber* Space Elevator (W)*	—
 Rocketry Modern Era	5000	Artillery or Flight, Rifling	SAM Infantry, Attack Submarine*, Guided Missile*, Tactical Nuke*, ICBM* Aluminum Co (C)*, Apollo Program (TP)	—
 Sailing Ancient Era	100	Fishing	Galley, Trireme* Lighthouse, Trading Post, Great Lighthouse (W)*, Moai Statues (NW)	enables trade on coast enables trade on rivers
 Satellites Modern Era	6000	Rocketry, Radio	Space Ship Docking Bay, Space Elevator (W)*	reveals World Map
 Scientific Method Industrial Era	2400	Astronomy or Chemistry, Printing Press	Forest Preserve	reveals Oil obsoletes Monasteries, Great Library (W), Parthenon (W), Temple of Artemis (W)
 Stealth Future Era	8000	Composites, Advanced Flight	Stealth Destroyer*, Stealth Bomber*	—
 Steam Power Industrial Era	3200	Chemistry, Replaceable Parts	Ironclad* Levee, Dike	reveals Coal Workers build improv. +50% faster obsoletes Hagia Sophia (W)
 Steel Industrial Era	2800	Iron Working, Chemistry	Cannon, Ironclad* Drydock, Ironworks (NW)	—
 Superconductors Modern Era	6500	Refrigeration or Computers	Laboratory, Research Institute, Space Ship Thrusters	—
 Theology Medieval Era	500	Writing, Monotheism	Hagia Sophia (W), Apostolic Palace (W)	enables Theocracy first to discover founds Christianity
 Wheel Ancient Era	60	—	Road Chariot, War Chariot, Immortal	—
 Writing Ancient Era	120	Animal Husbandry or Priesthood or Pottery	Library, Madrasa	enables Open Borders

W – World Wonder NW – National Wonder C – Corporation WP – World Project TP – Team Project

* other tech(s) also required

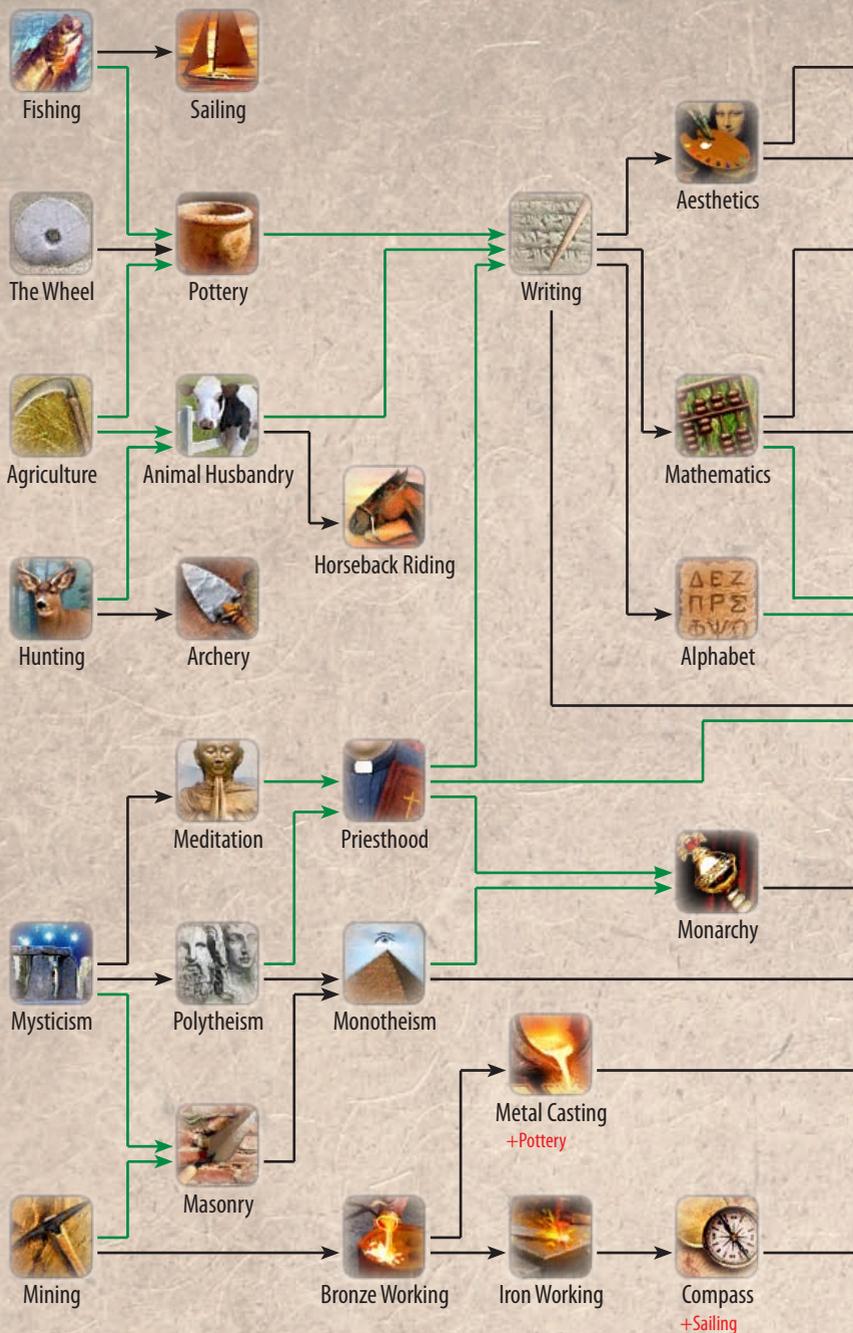
** Assumes **Duel** Map Size, **Noble** Difficulty Level, and **Normal** Game Speed. Factors for other conditions are:

– Map Size: **Tiny** ×1.10, **Small** ×1.20, **Standard** ×1.30, **Large** ×1.40, **Huge** ×1.50

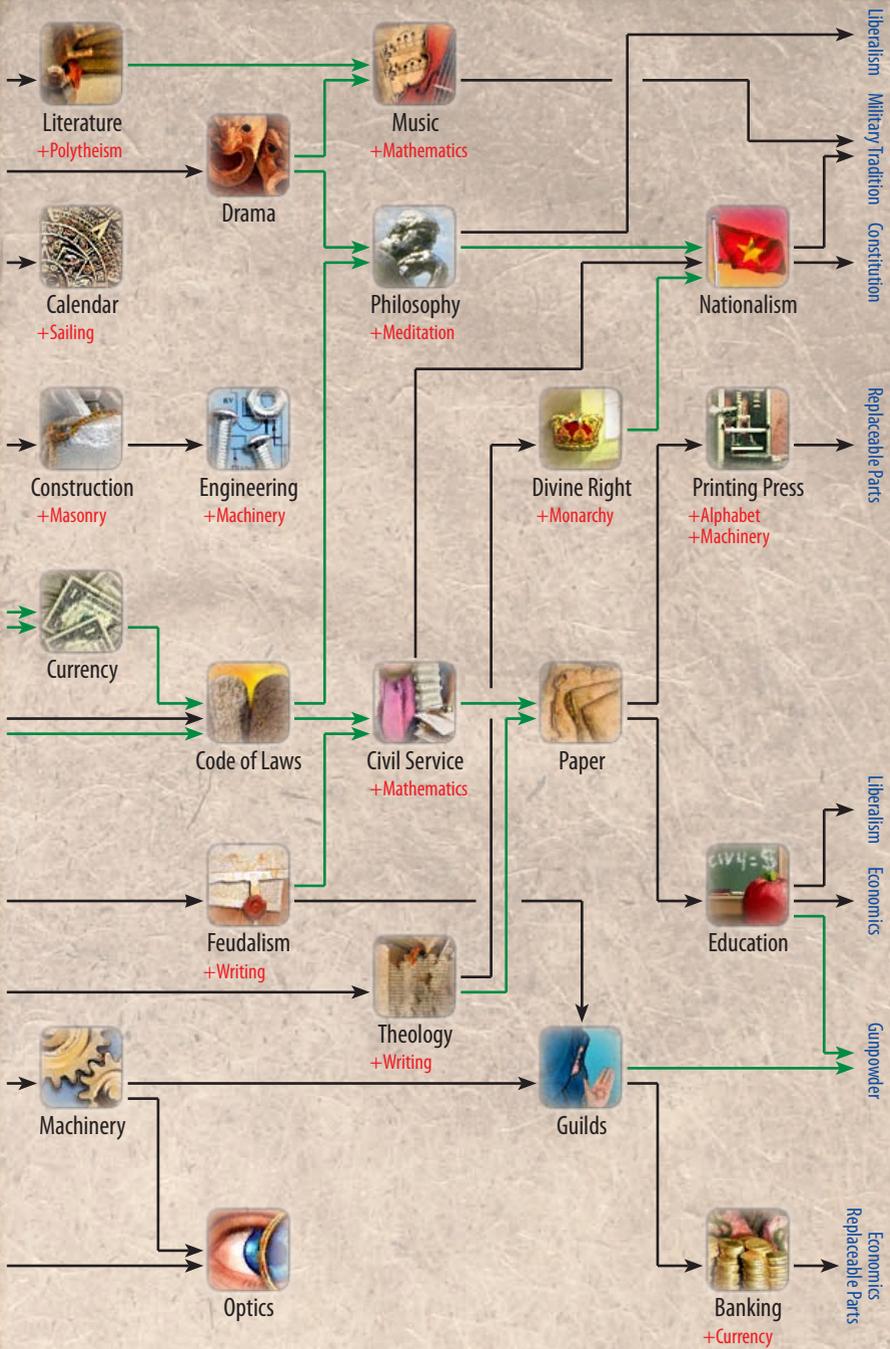
– Difficulty Level: **Settler** ×0.60, **Chieftain** ×0.75, **Warlord** ×0.90, **Prince** ×1.10, **Monarch** ×1.15, **Emperor** ×1.20, **Immortal** ×1.25, **Deity** ×1.30

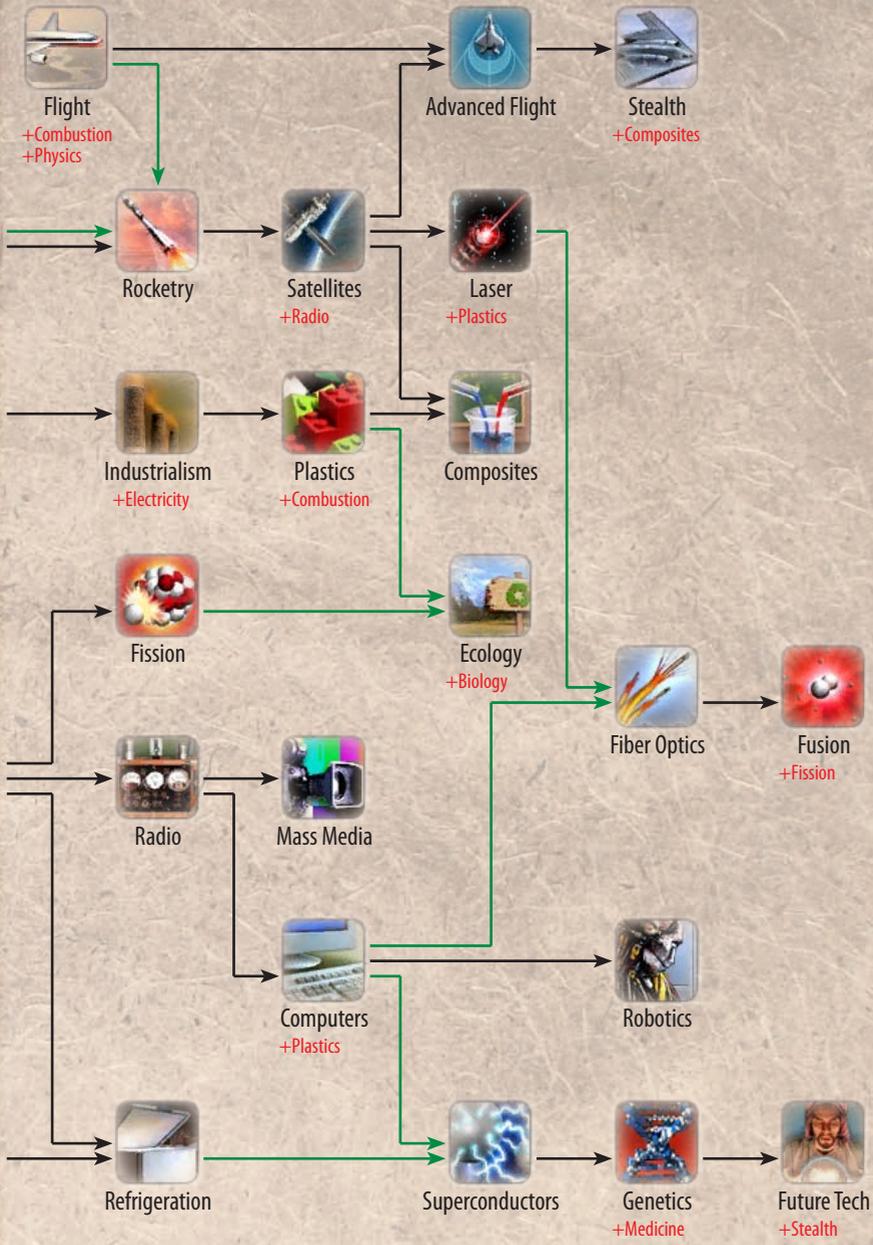
– Game Speed: **Quick** ×0.67, **Epic** ×1.50, **Marathon** ×3.00 (!)

example: Wheel on Huge/Emperor/Marathon will cost 324 beakers (60×1.50×1.20×3.00) instead of 60



green paths mean that only one of these prerequisite techs is required
 paths marked as black and techs marked as red are obligatory





Civics **Upkeep** **Effects** **Who likes it?**



Despotism

low —

—



Hereditary Rule

req. Monarchy

low • +1 happy per military unit stationed in a city

Catherine, Gilgamesh, Huayna Capac, Joao II, Louis XIV, Pacal II, Ragnar, Suleiman



Representation

req. Constitution

medium • +3 science per Specialist

• +3 happy in 5 largest cities*

Augustus Caesar, Julius Caesar, Napoleon, Pericles, Victoria



Police State

req. Fascism

high • +25% military unit production

• -50% war weariness

Genghis Khan, Montezuma, Shaka



Universal Suffrage

req. Democracy

medium • +1 hammer from **Town**

• can spend gold to finish production in a city

Boudica, Frederick, Gandhi



Barbarism

low —

—



Vassalage

req. Feudalism

high • +2 XP for all new units

• increases the number of units not requiring support costs (number depends on map size)

Alexander, Charlemagne, Cyrus, Mehmed II



Bureaucracy

req. Civil Service

high • Capital city produces +50% hammers and gold

Hammurabi, Kublai Khan, Peter, Qin Shi Huang



Nationhood

req. Nationalism

none • can draft 3 units (1 per city) per turn

• +25% espionage in all cities

• +2 happy from **Barracks**

Bismarck, Churchill, De Gaulle



Free Speech

req. Liberalism

low • +100% culture in all cities

• +2 commerce from **Town**

Washington



Tribalism

low —

—



Slavery

req. Bronze Working

medium • can sacrifice population to finish production in a city

—



Serfdom

req. Feudalism

low • Workers build Improvements 50% faster

—

Government Civics

Legal Civics

Labor Civics

Labor Civics

Economy Civics

Religion Civics

Civics **Upkeep** **Effects** **Who likes it?**



Caste System

req. Code of Laws

medium

- unlimited **Artists, Scientists, and Merchants**
- +1 hammer from **Workshop**

Wang Kon



Emancipation

req. Democracy

low

- +100% growth for **Cottage, Village, and Hamlet**
- unhappiness penalty for civilizations without Emancipation

Lincoln



Decentralisation

low

—

—



Mercantilism

req. Banking

medium

- 1 free **Specialist** per city
- no foreign Trade Routes
- foreign **Corporations** have no effect

Roosevelt,
Tokugawa



Free Market

req. Economy

medium

- -25% maintenance cost for **Corporations**
- +1 Trade Route per city

Hannibal,
Mansa Musa



State Property

req. Communism

low

- no maintenance cost from distance to **Palace**
- **Corporations** have no effect
- +10% hammers in all cities
- +1 food from **Workshop** and **Watermill**

Mao Zedong,
Stalin



Environmentalism

req. Medicine

medium

- +25% maintenance cost for **Corporations**
- +6 health in all cities
- +2 commerce from **Windmill** and **Forest Preserve**
- +2 health from **Public Transportation**

Sitting Bull



Paganism

Religion Civic

low

—

—



Organized Religion

req. Monotheism

high

- can build **Missionaries** without **Monastery**
- +25% building production in cities with **State Religion**

Brennus, Hatshepsut,
Ramesses II,
Suryavarman II



Theocracy

req. Theology

medium

- +2 XP for all new units in cities with **State Religion**
- no spread of non-State Religions

Isabella, Justinian I,
Saladin, Zara Yaqob



Pacifism

req. Philosophy

none

- +100% Great People Birth Rate in cities with **State Religion**
- +1 commerce support cost per military unit

—



Free Religion

req. Liberalism

low

- no State Religion
- +1 happy per Non-State Religion in city
- +10% science in all cities

Asoka, Darius I, Elizabeth,
Willem van Oranje

* for Small and Standard map, number depends on map size (see: page 75, "Base features" column – target cities)

Specialists and Bonuses

Relevant Buildings



Artist

+1 beaker, +4 culture
+3 Great People Birth Rate

free: Salon* (1)
Theatre / Pavilion* (2), Odeon* (2), Broadcast Tower (2), Globe Theatre (3)



Engineer

+2 hammers
+3 Great People Birth Rate

free: Industrial Park (1)
Forge / Mint* (1), Factory (2), Assembly Plant* (4), Industrial Park (2), Ironworks (3)



Merchant

+3 gold
+3 Great People Birth Rate

Grocer / Apothecary* (2), Market / Forum* (2), Wall Street (3)



Priest

+1 hammer, +1 gold
+3 Great People Birth Rate

free: Temple of Artemis (1)
Buddhist Stupa (2), Christian Cathedral (2), Confucian Academy (2), Hindu Mandir (2), Islamic Mosque (2), Jewish Synagogue (2), Taoist Pagoda (2), Madrassa* (2), Obelisk* (2), all Temples (1), Angkor Wat (3), all Shrines (3)



Scientist

+3 beakers
+3 Great People Birth Rate

free: Research Institute* (2), Great Library (2)
Library / Madrassa* (2), Observatory / Salon* (1), Laboratory / Research Institute* (1), National Park (1 per **Forest Preserve**), Oxford University (3)



Spy

+1 beaker, +4 espionage
+3 Great People Birth Rate

Courthouse / Rathaus* / Sacrificial Altar* / Ziggurat* (1), Jail / Mausoleum* (2), Intelligence Agency (2), Security Bureau (2), Kremlin (2)



Citizen

+1 hammer
can be turned into non-Great Specialist

—



Great Artist

+3 gold, +12 culture
Great Artist settled in a city

free: first to discover **Music** (1)
to increase **Great Artist** probability, build: Broadway, Globe Theatre, Hermitage, Heroic Epic, Hollywood, Mausoleum of Maussollos, Mt. Rushmore, National Epic, Notre Dame, Parthenon, Rock 'n' Roll, Sistine Chapel, Statue of Zeus, Taj Mahal



Great Engineer

+3 hammers, +3 beakers
Great Engineer settled in a city

free: first to discover **Fusion** (1)
to increase **Great Engineer** probability, build: Cristo Redentor, Hagia Sophia, Hanging Gardens, Ironworks, Pyramids, Three Gorges Dam



Great Merchant

+1 food, +6 gold
Great Merchant settled in a city

free: first to discover **Economics** (1)
to increase **Great Merchant** probability, build: Colossus, Eiffel Tower, Great Lighthouse, Statue of Liberty, Temple of Artemis, United Nations, Versailles, Wall Street



Great Military Instructor

+2 XP for all new military units
Great General settled in a city

free: first to discover **Fascism** (1), combat victories



Great Prophet

+2 hammers, +5 gold
Great Prophet settled in a city

to increase **Great Prophet** probability, build: Angkor Wat, Apostolic Palace, Chichen Itza, Moai Statues, Oracle, Shwedagon Paya, Spiral Minaret, Stonehenge



Great Scientist

+1 hammer, +6 beakers
Great Scientist settled in a city

free: first to discover **Physics** (1)
to increase **Great Scientist** probability, build: Great Library, Red Cross, Space Elevator, University of Sankore, National Park, Oxford University



Great Spy

+3 beakers, +12 espionage
Great Spy settled in a city

free: first to discover **Communism** (1)
to increase **Great Spy** probability, build: Forbidden Palace, Great Wall, Kremlin, Pentagon, Scotland Yard, West Point

* unique building



Health

Resources

- access to Banana, Clam, Corn, Cow, Crab, Deer, Fish, Pig, Rice, Sheep, Wheat each +1 health

Buildings

- Hospital +3 health
- Aqueduct / Baray* / Hammam* +2 health
- Garden* +2 health
- Apothecary* +2 health
- Granary / Terrace* with Corn, Rice, Wheat each +1 health
- Grocer / Apothecary* with Banana, Spices, Sugar, Wine each +1 health
- Supermarket / Mall* with Cow, Deer, Pig, Sheep each +1 health
- Harbor / Cothon* with Clam, Crab, Fish each +1 health
- Public Transportation +1 health
- with Oil extra +1 health
- with Environmentalism extra +2 health
- Recycling Center no unhealthiness from city buildings
- Airport, Drydock, Forge / Mint*, Laboratory / Research Institute* each +1 unhealthiness
- Factory / Assembly Plant* +1 unhealthiness
- with Oil and Coal addtl. (each) +2 unhealthiness
- Coal Plant / Shale Plant* +2 unhealthiness
- Industrial Park +2 unhealthiness
- with Oil and Coal each extra +1 unhealthiness

Wonders

- Hanging Gardens each city +1 health
- National Park removes Coal, no unhealthiness from population
- Ironworks +2 unhealthiness

Technologies

- Genetics +3 health
- Future Tech each +1 health
- Ecology can scrub **Fallout**
- Iron Working can remove Jungle

Civics

- Environmentalism +6 health

Leader traits

- Expansive trait +2 health

* unique building

** for standard map, number depends on map size

Happiness



Resources

- access to Dye, Fur, Gems, Gold, Hit Movies, Hit Musicals, Hit Singles, Incense, Ivory, Silk, Silver, Spices, Sugar, Whale, Wine each +1 happy

Buildings

- all Temples +1 happy
- Buddhist Stupa / Christian Cathedral / Confucian Academy / Hindu Mandir / Islamic Mosque / Jewish Synagogue / Taoist Pagoda when its Religion is a State Religion +2 happy
- with Incense extra +1 happy
- Colosseum / Ball Court* / Garden* +1 happy
- per 20% culture rate extra +1 happy
- Ball Court* addtl. bonus: +2 happy
- Odeon* +2 happy
- per 20% culture rate extra +1 happy
- with Hit Singles extra +1 happy
- Theatre / Pavilion* per 10% culture rate +1 happy
- with Dye extra +1 happy
- Hippodrome* +1 happy
- per 5% culture rate extra +1 happy
- with Horse extra +1 happy
- Forge / Mint* with Gems, Gold, Silver each +1 happy
- Market / Forum* with Fur, Ivory, Silk, Whale each +1 happy
- Mall* with Hit Movies, Hit Musicals, Hit Singles each +1 happy
- Broadcast Tower with Hit Movies, Hit Musicals, Hit Singles +1 happy
- per 10% culture rate extra +1 happy
- Hammam* +2 happy
- Mausoleum* +2 happy
- Jail / Mausoleum* -25% war weariness
- Sacrificial Altar* -50% anger duration
- from sacrificing population

Wonders

- Globe Theatre no unhappiness
- Notre Dame all cities on that continent +2 happy
- Broadway, Hollywood, Rock 'n' Roll each +1 happy
- Mt. Rushmore all cities on that continent -25% war weariness

Technologies

- Future Tech each +1 happy

Civics

- Representation in 5 largest cities** +3 happy
- Hereditary Rule per Military Unit in city +1 happy
- Free Religion per religion in city +1 happy
- Nationhood: Barracks / Ikhanda* +2 happy
- Police State -50% war weariness

Leader traits

- Charismatic trait all cities +1 happy
- Charismatic trait: Broadcast Tower +1 happy
- Monument / Obelisk* / Stele* / Totem Pole* +1 happy



Production

Resources and Improvements

- **Aluminum, Coal, Copper, Iron** each +1 hammer with **Mine** extra +3 hammers
- **Oil** +1 hammer with **Well / Offshore Platform** extra +2 hammers
- **Horse** +1 hammer, with **Pasture** extra +2 hammers
- **Stone** +1 hammer, with **Quarry** extra +2 hammers
- **Marble** +1 hammer, with **Quarry** extra +1 hammer
- **Ivory** +1 hammer, with **Camp** extra +1 hammer
- **Whale** with **Whaling Boat** +2 hammers
- **Cow** with **Pasture** +2 hammers
- **Gems, Gold, Silver** with **Mine** +1 hammer
- **Mine** without resources +2 hammers
- **Lumbermill, Watermill, Workshop** each +1 hammer
- **Lumbermill, Mine, Quarry** with **Railroad** extra +1 hammer

Buildings

- **Forge / Mint*** +25% hammers
- **Factory / Assembly Plant*** +25% hammers with **Power** +50% hammers
- **Coal Plant / Hydro Plant / Nuclear Plant** provides **Power**
- **Shale Plant*** provides **Power**, +10% hammers
- **Levee / Dike*** river tiles +1 hammer
Dike* unique bonus: also water tiles +1 hammer
- **Drydock** +50% **Water Units** production
- **Laboratory / Research Institute*** +50% spaceship production

Wonders

- **Ironworks** with **Coal** +50% hammers with **Iron** +50% hammers
- **Three Gorges Dam** provides **Power** for all cities on continent
- **Angkor Wat (until Computers)** all cities every **Priest** +1 hammer
- **Moai Statues** water tiles +1 hammer
- **Heroic Epic** +100% military unit production
- **Space Elevator** +50% spaceship production
- **Eiffel Tower** all cities free **Broadcast Tower**
- **Stonehenge (until Astronomy)** all cities free **Monument**
- **Mausoleum of Mausollos** +50% **Golden Age** length
- **Taj Mahal** starts **Golden Age**

Corporations

- **Mining Inc** every **Copper, Coal, Iron, Gold, Silver** +1 hammer
- **Creative Constructions** every **Aluminum, Copper, Iron, Marble, Stone** +0.5 hammer

Technologies

- **Mathematics** **Forest chops** yield +50% hammers
- **Chemistry, Guilds** each tech **Workshop** +1 hammer
- **Replaceable Parts** **Windmill, Watermill** +1 hammer
- **Bronze Working** enables **Forest chopping**

Civics

- **State Property** all cities +10% hammers
- **Bureaucracy** the **Capital** +50% hammers
- **Caste System** **Workshop** +1 hammer

- **Universal Suffrage** **Town** +1 hammer can spend gold to finish production
- **Organized Religion** all cities with **State Religion** +25% building production +25% military unit production
- **Police State** +25% military unit production
- **Slavery** can sacrifice population to finish production

Leader traits

- **Aggressive trait** +100% **Barracks** and **Drydock** production
- **Creative trait** +100% **Library, Theatre, and Colosseum** production
- **Expansive trait** +100% **Granary** and **Harbor** production +25% **Worker** production (hammers only)
- **Imperialistic trait** +50% **Settler** production (hammers only)
- **Industrious trait** +100% **Forge** production +50% **Wonder** production
- **Organized trait** +100% **Courthouse, Factory, and Lighthouse** production
- **Philosophical trait** +100% **University** production
- **Protective trait** +100% **Walls** and **Castle** production
- **Spiritual trait** +100% **Temple** production +100% **Cristo Redentor** production

Science



Buildings

- **Academy** +50% science
- **Laboratory / Research Institute*, Library / Madrasa*, Observatory / Salon*, University** each +25% science
- **Seowon*** +35% science
- **Monasteries (until Scientific Method)** +10% science

Wonders

- **Internet** grants all techs possessed by 2+ known civs
- **Oxford University** +100% science
- **University of Sankore (until Computers)** all **State Religion** buildings per turn +2 beakers 1 free tech
- **Oracle** 1 free tech

Corporations

- **Aluminium Co** every consumed **Coal** per turn +3 beakers
- **Standard Ethanol** every consumed **Corn, Rice, Sugar** per turn +2 beakers

Technologies

- **Alphabet** enables technology trading can build **Research**
- **Liberalism** 1 free technology for first to discover

Civics

- **Free Religion** all cities +10% science
- **Representation** all cities per **Specialist** +3 beakers



Wealth

(commerce, gold and maintenance)

Resources and Improvements

- **Gold** +1 commerce, with **Mine** extra +6 commerce
- **Gems** +1 commerce, with **Mine** extra +5 commerce
- **Incense** +1 commerce, with **Plantation** extra +5 commerce
- **Silver** +1 commerce, with **Mine** extra +4 commerce
- **Dye** +1 commerce, with **Plantation** extra +4 commerce
- **Silk** +1 commerce, with **Plantation** extra +3 commerce
- **Fur** +1 commerce, with **Camp** extra +3 commerce
- **Spices** +1 commerce, with **Plantation** extra +2 commerce
- **Wine** +1 commerce, with **Winery** extra +2 commerce
- **Uranium** with **Mine** +3 commerce
- **Sugar** +1 commerce, with **Plantation** extra +1 commerce
- **Marble** with **Quarry** +2 commerce
- **Horse, Sheep** each with **Pasture** +1 commerce
- **Oil** with **Well / Offshore Platform** +1 commerce
- **Ivory** with **Camp** +1 commerce
- **Whale** with **Whaling Boat** +1 commerce
- **Aluminum** with **Mine** +1 commerce
- **Cottage, Hamlet, Village, Town** +1, +2, +3, +4 commerce
- **Windmill** +1 commerce

Buildings

- **Bank** +50% gold
- **Stock Exchange*** +65% gold
- **Grocer / Apothecary*, Market / Forum*** each +25% gold
- **Mall*** +20% gold
- **Mint*** +10% gold
- **Feitoria*** water tiles +1 commerce
- **Courthouse / Sacrificial Altar* / Ziggurat*** -50% maintenance
- **Rathaus*** -75% maintenance
- **Ikhanda*** -20% maintenance

Wonders

- **Colossus** (until **Astronomy**) all cities water tiles +1 commerce
- **Wall Street** +100% gold
- **Spiral Minaret** (until **Computers**) each **State Religion** building +2 gold
- all **Corporation HQs** each city with corp. branch office +4 gold
- all **Religion Shrines** each city with **State Religion** +1 gold
- **Forbidden Palace, Versailles** reduces maintenance in nearby cities
- **Kremlin** (until **Fiber Optics**) -33% hurry production cost
- **Mausoleum of Maussollos** +50% Golden Age length
- **Taj Mahal** starts Golden Age

Corporations

- **Civilized Jewelers Inc** every **Gems, Gold, Silver** +1 gold

Technologies

- **Electricity** **Windmill** +1 commerce
Watermill +2 commerce
- **Printing Press** **Hamlet, Town** +1 commerce
- **Currency** enables gold trade via diplomacy
can build **Wealth**

- **Sailing** enables trade on coast and rivers
- **Astronomy** enables trade on Ocean

Civics

- **Free Speech** **Town** +2 commerce
- **Environmentalism** **Windmill, Forest Preserve** +2 commerce
also causes +25% **Corporations** maintenance cost
- **Bureaucracy** the Capital +50% gold
- **Emancipation** **Cottage, Village, Hamlet** +100% growth
- **State Property** no maintenance cost from distance to **Palace**
- **Vassalage** increases the number of units not requiring support costs
- **Free Market** -25% **Corporations** maintenance cost

Leader traits

- **Financial trait** all plots with at least 2 commerce +1 commerce
- **Organized trait** -50% **Civic upkeep**

Food and Growth



Resources and Improvements

- **Pig** +1 food, with **Pasture** extra +3 food
- **Fish** +1 food, with **Fishing Boat** extra +3 food
- **Clam, Crab** each +1 food, with **Fishing Boat** extra +2 food
- **Sheep** +1 food, with **Pasture** extra +2 food
- **Banana** +1 food, with **Plantation** extra +2 food
- **Corn, Wheat** each +1 food, with **Farm** extra +2 food
- **Rice** +1 food, with **Farm** extra +1 food
- **Deer** +1 food, with **Camp** extra +2 food
- **Whale** +1 food
- **Wine** with **Winery** +1 food
- **Farm** without resources +1 food, with irrigation extra +1 food
- **Windmill** +1 food

Buildings

- **Lighthouse / Trading Post*** on every water tile +1 food
- **Supermarket / Mall*** per turn +1 food
- **Baray*** per turn +1 food
- **Granary / Terrace*** doubles city growth rate

Wonders

- **Hanging Gardens** all cities +1 population

Corporations

- **Cereal Mills** every **Corn, Rice, Wheat** +0.75 food
- **Sid's Sushi Co** every **Clam, Crab, Fish, Rice** +0.5 food

Technologies

- **Biology** can build **Farm** without irrigation, **Farm** +1 food
- **Civil Service** **Farms** spread irrigation

Civics

- **State Property** **Workshop, Watermill** +1 food



Trade Routes

Buildings

- **Airport** +1 Trade Route
- **Castle** (until **Economics**) +1 Trade Route
- **Cothon*** also +1 Trade Route
- **Harbor / Cothon*** +50% Trade Route commerce
- **Customs House / Feitoria*** +100% commerce from intercontinental foreign Trade Routes

Wonders

- **Great Lighthouse** (until **Corporation**) all coastal cities +2 Trade Routes
- **Temple of Artemis** (until **Scientific Method**) +100% Trade Route commerce in host city

Technologies

- **Currency** all cities +1 Trade Route
- **Corporation** all cities +1 Trade Route

Civics

- **Free Market** all cities +1 Trade Route
- **Mercantilism** no foreign Trade Routes



City Defense

Buildings

- **Walls / Dun*** +50% city defense also -50% bombardment damage, except **Gunpowder Units**
- **Castle / Citadel*** +50% city defense also -25% bombardment damage, except **Gunpowder Units**
- **Bomb Shelter** -50% damage from **Nukes**
- **Bunker** -50% damage from **Air Units**
- **Hospital** heals units +10% extra per turn

Wonders

- **Chichen Itza** (until **Rifling**) in all cities +25% city defense
- **SDI** in all cities +75% chance of intercepting **Nukes**
- **Great Wall** prevents Barbarians from entering borders
- **Statue of Zeus** enemies suffer +100% War Weariness

Technologies

- **Communism, Fascism** enables Permanent Alliances
- **Military Tradition** enables Defensive Pacts

Military Experience



Buildings

- **Barracks / Ikhanda*** new **Land Units** +3 XP
- **Stable** (until **Advanced Flight**) new **Mounted Units** +2 XP
- **Ger*** (until **Advanced Flight**) new **Mounted Units** +4 XP
- **Drydock** new **Naval Units** +4 XP
- **Airport** new **Air Units** +3 XP
- **Citadel*** as unique bonus new **Siege Weapons** +5 XP
- **Totem Pole*** as unique bonus new **Archery Units** +3 XP
- **Dun*** as unique bonus new **Land Units** free **Guerilla I**
- **Trading Post*** as unique bonus new **Naval Units** free **Navigation I**

Wonders

- **West Point** all new units +4 XP
- **Red Cross** all new units free **Medic I**
- **Great Wall** inside borders +100% Great General Emergence

Technologies

- **Gunpowder** enables **Pinch**
- **Military Science** enables **Blitz, Commando**
- **Refrigeration** +1 move for **Naval Units**

Civics

- **Vassalage** all new units +2 XP
- **Theocracy** all cities with **State Religion** all new units +2 XP
- **Nationhood** can draft up to 3 units per turn

Leader traits

- **Aggressive trait** all **Melee** and **Gunpowder Units** free **Combat I**
- **Charismatic trait** -25% XP needed for unit promotions
- **Imperialist trait** +100% Great General Emergence
- **Protective trait** all **Archery** and **Gunpowder Units** free **City Garrison I** and **Drill I**

Espionage



Buildings

- **Scotland Yard** +100% espionage
- **Intelligence Agency** +50% and per turn +8 espionage
- **Security Bureau** +8 espionage also +50% defense against espionage, helps thwart rival spies
- **Jail / Mausoleum*** +50% and per turn +4 espionage
- **Castle** (until **Economics**) +25% espionage
- **Courthouse / Rathaus* / Sacrificial Altar* / Ziggurat*** per turn +2 espionage

Civics

- **Nationhood** all cities +25% espionage



Culture

Buildings

- Broadcast Tower +50% culture
- Buddhist Stupa / Christian Cathedral / Confucian Academy / Hindu Mandir / Islamic Mosque / Jewish Synagogue / Taoist Pagoda when its Religion is a **State Religion** +50% culture
- Stele* +25% culture
- Pavilion* +25% culture
- Academy +4 culture
- Madrassa* +4 culture
- Military Academy +3 culture
- Theatre / Pavilion* +3 culture
- University / Seowon* +3 culture
- Library +2 culture
- Monasteries (until **Scientific Method**) +2 culture
- Temples +1 culture
- Castle +1 culture
- Monument / Obelisk* / Totem Pole* / Stele* (until **Astronomy**) +1 culture

- Hippodrome* / Odeon* +3 culture
- Terrace* +2 culture

Wonders

- Hermitage +100% culture
- Broadway, Hollywood, Rock'n'Roll each +50% culture
- Sistine Chapel +10 culture
per **Specialist** extra +2 culture
each State Religion building extra +5 culture
- Mausoleum of Maussollos, Notre Dame, Parthenon, Statue of Zeus, Taj Mahal, Versailles each +10 culture



Great People Birth Rate

Buildings

- Forum* as unique bonus +25% GP points

Wonders

- Parthenon (until **Scientific Method**) all cities +50% GP points
- National Epic +100% GP points
- any World Wonder +2 GP points
- any National Wonder +1 GP point
- all Religion Shrines +1 GP point
- all Corporation HQs +1 GP point

Technologies

- Music free **Great Artist** for first to discover
- Fusion free **Great Engineer** for first to discover

- Angkor Wat, Great Library, Hagia Sophia, Oracle, Shwedagon Paya, Spiral Minaret, Stonehenge, Temple of Artemis, University of Sankore each +8 culture
- Chichen Itza, Colossus, Eiffel Tower, Globe Theatre, Great Lighthouse, Hanging Gardens, Pyramids, Statue of Liberty each +6 culture
- Cristo Redentor +5 culture
- Apostolic Palace, Forbidden Palace, Heroic Epic, Moai Statues, Mt. Rushmore, National Epic, Oxford University each +4 culture
- all Religion Shrines +4 culture
- National Park +3 culture
- Great Wall, Red Cross each +2 culture
- all Corporation HQs +2 culture

Corporations

- Civilized Jewelers Inc every **Gems, Gold, Silver** +4 culture
- Creative Constructions every **Aluminum, Copper, Iron, Marble, Stone** +3 culture
- Sid's Sushi Co every **Clam, Crab, Fish, Rice** +2 culture

Technologies

- Drama can adjust culture rate
- Music can build Culture

Civics

- Free Speech all cities +100% culture

Leader traits

- Creative trait all cities +2 culture

Others

- Buildings older than 1000 years will generate double culture

- Fascism free **Great General** for first to discover
- Economics free **Great Merchant** for first to discover
- Physics free **Great Scientist** for first to discover
- Communism free **Great Spy** for first to discover

Wonders

- Statue of Liberty all cities on that continent 1 free **Specialist**

Civics

- Pacifism all cities with **State Religion** +100% GP points
- Caste System unlimited **Artists, Merchants, Scientists**
- Mercantilism all cities 1 free **Specialist**

Leader traits

- Philosophical trait all cities +100% GP points

	Base bonuses	Tribal Village Results*	Modifiers	Others
Settler	+4 health +6 happy 24 free units +2 AI attitude 3 free techs: Wheel, Agriculture, Mining	20% technology, high gold 10% Settler, Worker, Warrior 5% Scout, experience, healing, maps no barbarians	research $\times 0.60$ unit cost $\times 0.20$ distance maint. $\times 0.45$ civic upkeep $\times 0.50$ inflation $\times 0.60$ AI costs** $\times 1.60$	animals don't attack animal strength: -70% barbarians in 50 turns*** 5 free wins vs. barbarians barbarian strength: -40%
Chieftain	+4 health +6 happy 18 free units +1 AI attitude 2 free techs: Wheel, Agriculture	20% high gold 15% technology 10% Settler, Worker, Warrior 5% Scout, experience 5% healing, maps 5% barbarians (only weak)	research $\times 0.75$ unit cost $\times 0.30$ distance maint. $\times 0.55$ civic upkeep $\times 0.60$ inflation $\times 0.70$ AI costs $\times 1.30$	25% animal attack probability animal strength: -60% barbarians in 45 turns*** 4 free wins vs. barbarians barbarian strength: -30%
Warlord	+3 health +5 happy 12 free units 1 free tech: Wheel	15% gold (high or low) 15% technology 10% Warrior, maps 5% Settler, Worker, Scout 5% experience, healing 5% barbarians (strong or weak)	research $\times 0.90$ unit cost $\times 0.40$ distance maint. $\times 0.65$ civic upkeep $\times 0.70$ inflation $\times 0.80$ AI costs $\times 1.10$	50% animal attack probability animal strength: -50% barbarians in 40 turns*** 3 free wins vs. barbarians barbarian strength: -20%
Noble	+3 health +5 happy 8 free units -1 AI attitude	20% low gold 15% high gold 10% Warrior, technology, exp., maps 5% Scout, healing 5% strong barbarians 10% weak barbarians	research $\times 1.00$ unit cost $\times 0.50$ distance maint. $\times 0.75$ civic upkeep $\times 0.80$ inflation $\times 0.90$ AI costs $\times 1.00$	75% animal attack probability animal strength: -40% barbarians in 35 turns*** 2 free wins vs. barbarians barbarian strength: -10%
Prince	+2 health +4 happy 6 free units -1 AI attitude AI: extra Scout	20% low gold 10% Warrior, technology, experience, high gold, maps 5% Scout, healing 5% strong barbarians 15% weak barbarians	research $\times 1.10$ unit cost $\times 0.60$ distance maint. $\times 0.85$ civic upkeep $\times 0.90$ inflation $\times 0.95$ AI costs $\times 0.95$	90% animal attack probability animal strength: -30% barbarians in 30 turns*** 1 free win vs. barbarians barbarian strength: -5%
Monarch	+2 health +4 happy 4 free units -1 AI attitude AI: extra Worker and 1 def. unit, 1 free tech	20% low gold 10% Warrior, technology, experience, maps 5% Scout, healing, high gold 10% strong barbarians 15% weak barbarians	research $\times 1.15$ unit cost $\times 0.70$ distance maint. $\times 0.90$ civic upkeep $\times 0.95$ inflation $\times 1.00$ AI costs $\times 0.90$	95% animal attack probability animal strength: -20% barbarians in 25 turns***
Emperor	+1 health +3 happy 3 free units -1 AI attitude AI: extra Scout, 2 Workers, 2 def. units, 2 free techs	25% low gold 10% technology, maps 5% Warrior, Scout, experience, healing, high gold 15% weak barbarians 15% strong barbarians	research $\times 1.20$ unit cost $\times 0.80$ distance maint. $\times 0.95$ civic upkeep $\times 1.00$ inflation $\times 1.00$ AI costs $\times 0.85$	98% animal attack probability animal strength: -10% barbarians in 20 turns***
Immortal	+1 health +3 happy 2 free units -1 AI attitude AI: extra Scout, 2 Workers, 3 def. units, 3 free techs	25% low gold 10% technology, maps 5% Warrior, Scout, experience, healing 15% weak barbarians 20% strong barbarians	research $\times 1.25$ unit cost $\times 0.90$ distance maint. $\times 1.00$ civic upkeep $\times 1.00$ inflation $\times 1.00$ AI costs $\times 0.80$	99% animal attack probability animal strength: -5% barbarians in 15 turns***
Deity	+1 health +3 happy 1 free unit -1 AI attitude AI: extra Scout, 2 Workers, 4 def. units, 4 free techs	25% low gold 10% technology 5% Warrior, Scout, experience, healing, maps 10% weak barbarians 30% strong barbarians	research $\times 1.30$ unit cost $\times 1.00$ distance maint. $\times 1.00$ civic upkeep $\times 1.00$ inflation $\times 1.00$ AI costs $\times 0.60$	animals always attack barbarians in 10 turns***

* Based on XML code; represents probabilities of results from Tribal Villages.

** Based on XML code; represents AI cost modifiers for: growth rate, unit training, city production (Wonders never less than $\times 1.00$).

*** The first barbarian city is founded five turns after they first appear.

World Size	Base features [•]	Some modifiers					
Duel 960 tiles 24 H × 40 W	2 players default 4 target cities	prereq. buildings research cost trade profit	×1.00 ×1.00 ×0.80	war weariness can draft up to 2 units per turn	×1.50	distance maint. no. cities maint. colony maint. corporation maint.	×0.50 ×0.45 ×0.67 ×4.00
Tiny 1664 tiles 32 H × 52 W	3 players default 4 target cities	prereq. buildings research cost trade profit	×1.00 ×1.10 ×0.70	war weariness can draft up to 3 units per turn	×1.30	distance maint. no. cities maint. colony maint. corporation maint.	×0.60 ×0.40 ×0.60 ×2.00
Small 2560 tiles 40 H × 64 W	5 players default 5 target cities	prereq. buildings research cost trade profit	×1.25 ×1.20 ×0.60	war weariness can draft up to 4 units per turn	×1.10	distance maint. no. cities maint. colony maint. corporation maint.	×0.70 ×0.35 ×0.52 ×1.50
Standard 4368 tiles 52 H × 84 W	7 players default 5 target cities	prereq. buildings research cost trade profit	×1.50 ×1.30 ×0.50	war weariness can draft up to 5 units per turn	×0.90	distance maint. no. cities maint. colony maint. corporation maint.	×0.80 ×0.30 ×0.45 ×1.00
Large 6656 tiles 64 H × 104 W	9 players default 6 target cities	prereq. buildings research cost trade profit	×1.75 ×1.40 ×0.40	war weariness can draft up to 6 units per turn	×0.70	distance maint. no. cities maint. colony maint. corporation maint.	×0.90 ×0.25 ×0.37 ×0.75
Huge 10,240 tiles 80 H × 128 W	11 players default 6 target cities	prereq. buildings research cost trade profit	×2.00 ×1.50 ×0.30	war weariness can draft up to 7 units per turn	×0.50	distance maint. no. cities maint. colony maint. corporation maint.	×1.00 ×0.20 ×0.30 ×0.50

[•] Based on XML code; more **players** possible in Custom Games; **target cities** determines how many “largest cities” get the happiness bonus from Representation civic and how far apart the map generator tries to set start positions.

^{**} Some Buildings and National Wonders require specific number of other buildings to be built (see: pages 24–29, 32).

Game Length	Multiplier [•]	Other modifiers					
Marathon 1500 turns	×3.00 ^{**}	Anarchy length Golden Age length Barbarians	×2.00 ×2.00 ×4.00	Hurry effect Hurry anger length	×0.33 ×3.00	Inflation Victory delay	×0.10 ×3.00
Epic 750 turns	×1.50	Anarchy length Golden Age length Barbarians	×1.50 ×1.25 ×1.50	Hurry effect Hurry anger length	×0.66 ×1.50	Inflation Victory delay	×0.20 ×1.50
Normal 500 turns	×1.00	Anarchy length Golden Age length Barbarians	×1.00 ×1.00 ×1.00	Hurry effect Hurry anger length	×1.00 ×1.00	Inflation Victory delay	×0.30 ×1.00
Quick 330 turns	×0.67	Anarchy length Golden Age length Barbarians	×0.67 ×0.80 ×0.67	Hurry effect Hurry anger length	×1.50 ×0.67	Inflation Victory delay	×0.45 ×0.67

[•] Based on XML code; affects the following: city growth rate (food), unit training (hammers), building, wonder, and project construction (hammers), tech research (beakers); building improvements (turns), improvement upgrades (turns), city culture points, Great People Birth Rate points, and Great Work effects.

^{**} except for unit training cost (×2.00).

Keyboard and Mouse Shortcuts

Esc Exit current screen Bring up menu	F1 Domestic advisor	F2 Financial advisor	F3 Civics advisor	F4 Foreign advisor	F5 Military advisor Quick Save	F6 Technology advisor	F7 Religion advisor Corporation	F8 Victory Quick Load	F9 Demograph	F10 Capital City	F11 Toggle Globe View	F12 Civlopedia
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Bind selected unit or group to that number Save a production queue (in city screen)

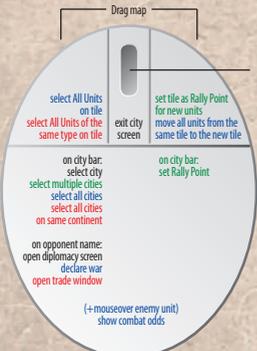
1	2	3	4	5	6	7	8	9	0
---	---	---	---	---	---	---	---	---	---

Tab Chat to team Chat to all Chat/Event log	Q Quarry Retire	W Winery, Windmill Whaling Boat Worldbuilder	E Explore (automated) Espionage Screen	R Road Railroad Road-to mode Rebase mode Toggle flag res	T Cottage Toggle grid	Y Toggle tile yields	U Unload (off ship)	I Farm Remove interface Minimize interface	O Offshore Platform Change persp. view Options Menu	P Ping map Pasture Plantation Pillage Sea Patrol	\ Cycle to previous selected unit
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Caps	A Automate Worker Force move units to queued orders	S Sentry Air Strike Mark tile Save game	D Change player name, e-mail	F Fortify, Fish nets Forest Preserve Satellite view Fort Flying cam mode	G Go-to mode all units same type units	H Camp	J	K Workshop	L Lumbermill Load (onto ship) Load game	Enter Cycle units Advance to next turn Exit City Screen Force turn to end
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Shift (+LMB on item in city screen) add item to the end of production queue	Z	X	C Center on unit Remove forest/jungle Activate all units of the same type	V	B Build city Bombard mode Air bomb mode Toggle bare map	N Trade network (automated)	M Mine Toggle music	< Cycle to prev. unit (same tile)	> Cycle to next unit (same tile)	? Cycle through active Workers
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Ctrl (+LMB on item in city screen) add item to the beginning of production queue	Alt (+LMB on item in city screen) produce item indefinitely	Space Skip turn
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Insert Open nearest friendly city screen	Home Cycle through cities	Pg Up Camera zoom in	Prt Screen Take screenshot	Scroll Lock Voice chat to team to all in Diplo Screen	Pause Pause game
Delete Delete unit	End Cycle through cities	Pg Down Camera zoom out	7 Move unit ↶	8 Move unit ↑	9 Move unit ↷
↑ Lock camera angle 45° clockwise Rotate camera clockwise	↓ Jump to previous city (in city screen)	↶ Lock camera angle 45° counterclockwise Rotate camera counterclockwise	4 Cycle cities (in city screen) Move unit ↷↶	5 Center on unit	6 Cycle cities (in city screen) Move unit ↷↷
← Jump to previous city (in city screen)	→ Jump to next city (in city screen)	1 Move unit ↶↶	2 Move unit ↷↶	3 Move unit ↷↷	

CYCLE SCREENS

Esc	Exit current screen
Bring up Menu	
F1	Domestic Advisor screen
F2	Financial Advisor screen
F3	Civics Advisor screen
F4	Foreign Advisor screen
F5	Military Advisor screen
F6	Technology Advisor screen
F7	Religion Advisor screen
Shift F7	Corporation Advisor screen
F8	Victory screen
F9	Demographic screen
F10	Capital City screen
F11	Toggle Globe View screen
F12	Civlopedia screen
Ctrl E	Espionage screen
Ctrl W	Access Worldbuilder
Ctrl O	Options Menu

CITY SCREEN

Insert	Open nearest friendly city
↶↷	Cycle cities
MW	Cycle cities
Alt LMB	+item: produce indefinitely
Ctrl LMB	+item: add to begin. of queue
Shift LMB	+item: add to end of queue
Enter	Exit city screen
MMB	Exit city screen

GAMEPLAY

Alt Q	Retire
Pause	Pause game
Enter	Next turn
Space	Skip turn
Ctrl L	Load Game
Ctrl S	Save Game
Shift F8	Quick Load
Shift F5	Quick Save
Ctrl M	Toggle music
Ctrl R	Toggle flag resorces
Ctrl T	Toggle grid
Ctrl Y	Toggle tile yields
Ctrl B	Toggle bare map
Alt I	Remove interface
Ctrl I	Minimize interface
P	Ping the map
Alt S	Mark tile
Prt Scr	Take screenshot
LMB	+city bar: select city
Shift LMB	+city bar: select multiple cities
Alt LMB	+city bar: select all cities
Ctrl LMB	+city bar: select all cities on the same continent
Shift RMB	+city bar: set Rally Point
LMB RMB	drag map
LMB	+opponent name: diplomacy
Alt LMB	+opponent name: declare war
Ctrl LMB	+opponent name: trade

UNIT ACTIONS

B	Build City (Settlers)
Bombard	(Air units)
W	Wait
F	Fortify
S	Sentry / Air Strike (Air units)
E	Explore (auto)
Shift P	Pillage
G	Go-to Mode
Shift G	Go-to Mode (all units)
Ctrl G	Go-to Mode (same type units)
L	Load (onto ship)
U	Unload (off ship)
Ctrl P	Sea Patrol
Alt R	Rebase mode
Del	Delete unit
LMB	Select unit
Alt LMB	Select all units on tile
Ctrl LMB	Select same type units on tile
Ctrl C	Activate all same type units
Ctrl A	Force all units with queued orders to move
NumPad 5	Center on unit
NumPad 6	Move unit
RMB	Move unit to selected tile
Alt RMB	Set Rally Point
, . or MW	Cycle units in the same tile
\	Cycle to prev. selected unit
/	Cycle through active workers
Alt MO	+enemy unit: combat odds

WORKER BUILDS

A	Automate
R	Road/Railroad
Alt R	Road-to Mode
T	Cottage
I	Build Farm
M	Mine
L	Lumbermill
Q	Quarry
H	Camp
F	Fishing nets
O	Offshore Platform
Shift P	Pasture/Plantation
Shift W	Winery, Windmill, Watermill, Whaling Boat
Shift F	Forest Preserve
Ctrl F	Fort
Alt C	Clear Forest/Jungle
N	Trade Network (auto)
Shift Ctrl C	Improve nearest city

CAMERA

PgUp/PgDn	Zoom in/out
MW	Zoom in/out
Shift ↻	Rotate
Ctrl ↻	Lock 45° clockwise
Ctrl ↻	Lock 45° counterclockwise
Ctrl F	Satellite view
Ctrl W	Flying mode
Alt O	Change perspective

LMB left mouse button MMB middle mouse button RMB right mouse button MW mouse wheel MO mouseover * must be enabled in INI file